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FINANCIAL MANAGEMENT CONFERENCE**

The Impact of E-Government on Financial Management: Corruption Risks and Control Rewards

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Opening Remarks

**Graham Joscelyne, President, ICGFM
Auditor General, World Bank**

Joyce Elam, Dean, College of Business Administration, Florida International University

**Graham Joscelyne, President, ICGFM
Auditor General, World Bank**

Before I speak I would like my colleague to make some opening remarks. We have collaborated for some while with Florida International University to bring you this conference. I've had the pleasure of speaking here before and of attending at least on one other occasion. Looking at the topics that this conference has covered over the years, I think we have tried as two organizations to be forward-thinking, forward-looking and proactive as we attempt to see what you and I will be facing as we do our business.

This year should be no exception, and I think all of you, just by your presence here, demonstrate to us that E-government is something about which you care. If you don't care enough about it yet, you've come here to learn something about it. It is something which is affecting every one of our lives. As you go through the week you are going to discover just the extent to which you should be alive to it as financial managers in your organization.

It is my pleasure to welcome Dr. Joyce Elam. Her background is one which lends itself very well to what we are going to be discussing this week. You've got her resume in your packet, but I would just highlight one particular aspect of her work—that is that her background in strategic use of information technology to support individual and group decision making. I think this puts her at the forefront of the organization that she represents, the sort of organization that we wish to partner with to deal with issues like E-government. She has written and lectured extensively on this topic. It is my pleasure to welcome her to open the conference.

Joyce Elam, Dean, College of Business Administration, Florida International University

Good morning everyone. It is my pleasure to be with you this morning to welcome you to this conference. I also bring greetings to you from President Modesto Maidique who is the president of Florida International University. What I want to do this morning is to tell you just a little bit about Florida International University and about the College of Business Administration and the School of Accounting.

Florida International University is a young university. We are only 29 years old. However, we are one of the fastest growing universities in the United States. We have over 30,000 students, over 1,000 faculty and over 200 different programs. Over the last couple of years we have achieved a number of very exciting milestones. First of all, the University was just recognized as a Research I university, and that's very important. There are only about 200 universities in the entire nation that have achieved that distinction. What that means is that our university is one of the top universities in terms of sponsored research and production of doctoral students. So Florida International University is seen as a major player in the creation of new knowledge in a number of different disciplines.

Also, we will be starting a college of law in 2002, and a football team about which we are excited too. And we were just recently given a Phi Beta Kappa chapter. It's interesting to note that there are many universities that have been around for hundreds of years who have yet to achieve that distinction. So our university is clearly one of the rising stars on the national higher education landscape.

But the College of Business has also had its own significant accomplishments over the last few years. This last December our reaccreditation with the AACSB, which is the prestigious accrediting agency for colleges of business, was reaffirmed. There are only about 400 colleges of business throughout the world that have achieved this distinction.

The College of Business has about 5,000 students in both our graduate and undergraduate programs, and we have over 100 faculty. The large majority of those faculty have Ph.D. degrees and are distinguished as researchers and scholars in their own field.

The College of Business Administration at Florida International University is also known for its work in information technology and international business. We have a wide variety of very innovative, forward-looking programs in each of these two areas. If you were to come to our campus, what you would find would be a very high-tech learning environment. Our graduate students are required to have laptops and we're totally wireless in our college of business. So you're likely to see the students sitting in the halls or sitting out on the grass with their laptops connected to the Internet doing their work. All of our coursework is on the Internet and you will find e-business topics infused throughout our entire curriculum. Our goal is to create, within the business school, a model of how the world is going to be for the students once they graduate from the college. So I was very excited when I found out what the theme was going to be for this conference—E-government. It is the e—the e-government, the e-education, that is a very, very important topic. The Internet is going to change the lives of all of us, be it in education, be it in business, be it in government. I think you're going to have a fabulous program over these next few days.

I also wanted to talk about our School of Accounting. It is one of our strongest departments and if you were to go into our community and talk to the business leaders, they would tell you how proud they are of all of the graduates that come out of our School of Accounting. The School of Accounting just recently received reaffirmation of its accreditation from the same organization, the AACSB, that accredits the business school. This is quite an accomplishment as there are only 140 schools of accounting from among over 3,000 that have been accorded this distinction. This is the

first time that we have announced this in public. We just heard about it. There is a major annual meeting of the AACSB in April where it will become official. But I would like to take this opportunity to congratulate Dr. Dittenhofer, the Director for the School of Accounting, and the entire faculty in the school for this great accomplishment.

It is quite a tradition, this conference. This is the fifteenth one in which the College and the School have been involved. Dr. Dittenhofer tells me that it has grown from 30 attendees at the very first conference, to the one today where you are expecting over 400 individuals from all around the world. I would like to congratulate Mr. James Wesberry of Casals & Associates for the outstanding program that he has assembled for you this week. I also want to acknowledge the hard work and dedication of Dr. Mort Dittenhofer who really is the heart and soul of this conference and also Ms. Ana Estevil, the Conference Secretary. She is also the Office Manager for the School of Accounting. I know they work very hard on this conference. They pretty much work on this conference all year long. Once one is completed, they get started on next year's conference. So I really want to thank them for their hard work.

I looked over your program and I want to tell you that I'm really impressed by your interest in the improvements that can be achieved in governmental organizations. The information that you're going to acquire in the next few days will certainly be valuable to you as you strive to make those improvements in your own organization. You are properly assuming your responsibility to your citizens and constituents by participating in the fine collection of technical and governmental subjects that have been selected for you during this conference. We applaud the excellent array of speakers who have volunteered to bring you the latest knowledge and methodologies and concepts and research that will allow your governments to operate more efficiently and effectively. Good government is a privilege to which we are all entitled, and we applaud your interest in being a part of this assembly with the intent of achieving improvements in the fine governments of which you are a part.

The College of Business Administration at Florida International University and the School of Accounting are delighted to have you all with us during this conference. If you have the opportunity we would love to have you come out and visit our campus. It is a lovely campus just about ten minutes down the expressway, sitting on the edge of the Everglades. We're here to provide you with any assistance that you might need. Good luck and thank you very much for attending and allowing me to address you this morning.

Graham Joscelyne, President, ICGFM
Auditor General, World Bank

This is the fifteenth conference that we've had of this nature, as you've also heard from Joyce. It is my pleasure as President of the Consortium to welcome each one of you here, to ask that you settle down as quickly as you can, find your colleagues, find new colleagues and new friends, learn what you can from this conference and then return home and share it with your colleagues there. I'm very conscious that within the organization where I work, the World Bank, that I have many colleagues who would love to be here. I have a responsibility to take what I learn from this conference back to them and beyond that to their clients and beneficiaries. I'm sure the same goes

for each one of you. Many of you have traveled a long distance. Maybe it was the attraction of Miami that brought you here. Maybe it was the attraction of the United States that brought you here. Or maybe it was something else. But we think we've put together a series of programs over the next couple of days that should keep you fairly riveted on the topic of e-government—what it is, what it means and what it should mean to you.

I would like to read something that I found in the March 24th *The Economist* magazine. It's only a few days old and some of you may have read it. It's titled, "Caught in the Net." I'm going to just read some of the excerpts from it because I think it provides a flavor of what we can expect over the next couple of days here and, as we move back to our countries, what we might want to consider. It reads as follows:

"Mr. Laxman, the president of the main party in India's ruling coalition, made several mistakes. One was to accept some money that looked very like a bribe. Another was to take it without checking the credentials of those who offered it. But Mr. Laxman also had bad luck. His temptation took place in the Internet age. He and India's Defense Minister have had to step down in disgrace. The president of the Samata party which was also the ruling coalition has had to resign. Indeed, the entire government may yet fall. The clear victor, however, is the Internet which is opening up government everywhere to scrutiny on a scale that has never been seen before. It does this in several ways. First, the Internet vastly lowers the cost of entry into the media preserve. A Web site costs much less than a printing press to set up and its running costs are dramatically lower. An Internet newspaper dispenses with newsprint and physical distribution, the two largest costs for any newspaper. With the Internet, anyone can be a magazine or book publisher, an investigative reporter or even a television station. Second, the Net's reach is far greater. In the latest scandal, interested parties not just in India but all over the world had instant access to an impressive mass of material from the moment of publication. The real advantage of the Internet will be seen in countries where the existing press is much less freer than India's. And no wonder. Internet sites are intrinsically harder to control than newspapers. They have no valuable and immovable presses to seize, no newsprint to ration, no distributors to lean on, although Internet service providers can be intimidated. And if necessary, a site can be moved abroad. As the amount of the information and the number of providers on the Internet expands, the medium will become harder and harder to monitor. Much of the information may be rubbish, but no wonder the world's despots are worried."

Ladies and gentlemen, that to me sums up very nicely some current events in the world. But these issues, although I mentioned the country India, could come from many of our countries including my own country, South Africa. And so it does impact me. And the means of impact is essentially the E part of the conference theme. And what is this about? This conference is about E and transparency, E and accountability, E and good governance.

Once again, I would like to welcome you to this conference. Learn what you can, take it home and understand that the world is fast changing. Thank you.

Keynote: The Opacity Index: Measuring the Effects of Opacity on Cost and Availability of Capital Worldwide

Jacquelyn L. Williams-Bridgers, PricewaterhouseCoopers

Good morning. It is a pleasure to see so many friends again and to have the opportunity over the course of the week to make new acquaintances. Let me first congratulate the International Consortium and Florida International University for what promises to be yet again another engaging forum where we can discuss, we can educate ourselves, we can debate issues that are undeniably in demand of our attention.

Over the past few years we have become comfortable with the concept that transparency in government functions, in business practices, reduces the opportunity for corruption. Transparency International, the World Bank and others have produced very important indicators of perceptions of corruption worldwide. To date, however, we have not had readily available to us measures of the progress of each of our governments in reducing levels of corruption. Therefore, today, we at PricewaterhouseCoopers offer a new tool that enables measurement of the effects of lack of transparency or opacity on governments. We offer a measure of the effects of opacity on the cost of capital and the availability of capital in countries worldwide.

Global trading markets, the interconnectivity of governments, have exposed us. Our business practices and norms, our deviations from the norm, have been revealed to our neighbors, to our trading competitors, to our partners around the globe. Over time the global commercial marketplace comes to assess how open we are in conducting business or allowing business transactions to progress in country. They also draw comparisons over time. How open is it today compared to the last time they did business with us?

What the marketplace finds is that in some countries the abuse of official position for individual advantage is rare. They find that requests for unofficial payments or bribes to consummate business transactions are infrequent. There is low prevalence of demand for special payments in obtaining bank loans, when registering a foreign-owned company, when sending capital abroad, when obtaining licenses for production, imports or exports. The marketplace finds that in some countries good governance prevails; integrity and accountability are watchwords. Ethical standards are clear. Civil society is educated about ethical standards and their education is monitored over time as to their compliance with obligations to conduct themselves in an ethical manner. Oversight infrastructures in some governments are well grounded. The watchdogs are ever vigilant.

In some countries we find that the public is often engaged in acrimonious debate about economic policy. They are often engaged in the course of tax policy in the country. There is some predictability about tax policy changes. A typical investor can rather easily access financial information on private firms and has some assurance that the accounting transactions, the accounting standards and their disclosure of information is going to be relatively standard across various businesses. And regulatory authorities in some countries operate in a very transparent fashion. Some countries apply tax policies consistently from one business firm to another.

By way of contrast, in other nations the market does not see transparent practices in government. The opacity of governance is caused by any one of a number of factors. There may be nascent economies, emerging markets developing in countries. Some countries deliberately choose not to engage in international standard setting or adopt transparent practices. In other nations we find very turbulent times. There is much change occurring—instability in government leadership. For any number of reasons, the business and capital market environments are not attractive and they are not conducive to transparent business practices. As a result, investor confidence diminishes. As economic vitality of the nation grows increasingly dependent on the global marketplace, all participants recognize that the relative transparency or opacity of a nation's capital markets makes for more attractive or less attractive investment opportunities. Transparency makes for a predictable business environment, whereas opacity makes for a path strewn with obstacles for businesses as well as governments. Quite simply, our behavior costs. The behavior associated with opacity in the intersection of business, finance and government costs.

What does it cost? Opacity hinders economic progress and development. The absence of transparency in economic activity and policies diminishes the potential and the realization for economic progress. But this isn't new. Researchers have long told us that lack of transparency in accounting standards has a direct and immediate impact on the financial standing of our countries. But to date there has been very little research on the impact of opacity on the cost and availability of capital. That cost needs to be clearly defined. It needs to be understood by all and it needs to be measured over time so that we have a true sense of the impact.

But why should anyone care? Who should care? Business executives who are looking to invest in country or looking to invest across national borders should care. Government officials whose primary responsibility is the stewardship of public funds—they should care. Diplomats whose mission it is to advance the business interests of local national firms and propel them into the international marketplace—they should care. Regulatory authorities looking to ensure that there is a level playing field for a business should care. Lenders of finance who are responsible for the due diligence and monitoring of costs that bankers and investors incur to ensure that managers apply borrowed funds for intended purposes—they should care. Citizens. Every single one of us in this room should care because we come to expect our governments to invest our monies wisely. We come to expect our governments to invest in those indicators of success of economic progress in the infrastructure, the health, the education and the public welfare systems of our country.

What am I talking about when I talk about opacity? When we coined the term opacity we meant the lack of transparent, valid, reliable, published, easily understood and widely if not internationally, accepted rules of engagement in capital markets. It is the vast and furious intersection of commercial and government sectors and the regulatory environment that requires

these practices to be transparent. Legal and economic policy, regulation and oversight practices must be developed within countries. They must be homegrown. However, once our nations venture into the international marketplace, the marketplace demands that we behave in a certain way or we will lose. We'll lose in terms of investment opportunity. We will lose in terms of investment capital.

What feeds opacity? We identified five principal areas that will likely have the greatest effect on the capital market. First and foremost—corruption. We know it well; we've talked about it for years. Second—our legal systems, judicial systems. If there is not transparency in those systems, certainly corruption will flourish and it will cost us, eventually. Economic policy is third, including fiscal, monetary and tax-related policy. Fourth, the accounting standards—not only in government, but also in corporate governance. Lastly, the regulatory regime in country—government policies that regulate business and business transactions in countries.

Acronyms always come in rather handy, especially when our memory tends to fail us. Therefore I will not disappoint. CLEAR is the acronym that we have coined for the five dimensions of opacity. I apologize to my neighbors, my Spanish-speaking neighbors. CLARA perhaps is a better acronym. But for purposes of consistency in all of these presentations worldwide, we will use the term CLEAR. CLEAR denotes the many dimensions, the many aspects of governance in need of attention as we look to identify those strategies which we need to improve in order to enhance transparency in the capital market.

Why? Why these five? Opacity is difficult to measure regardless of what kind of inputs you identify as being critical. Typically in the area of corruption, the lack of transparency has been discussed in terms of ethical concerns, traditional mores, cultural norms. All of this is very important, yes, but we believe that there are five more objective measures that we need to focus on if we are going to get serious about what we need to do to address corruption.

First, in the corruption area, there may be an environment in a country which enables corruption in the form of bribery and favoritism. It will affect the cost of capital if firms are crowded out of the marketplace because politically connected lending replaces lending that is based on economic factors. It is quite simple.

Second, in the legal realm, there may be laws for procurement or contracting where real or intellectual property rights are opaque, confusing and inadequate. Predictability of the judicial system and enforcement of laws may be uncertain in country. This leads to corruption.

Economic policies, including interest rates, foreign exchange rates, tax policies may change unpredictably—there is no certainty. Tax policies may be applied retroactively. This leads to corruption.

Accounting standards may be inconsistent in country. There may be limited adherence to some accounting norms by government, by the central and private banks, by private firms, by state-owned enterprises. Potential investors' access to financial information on publicly traded corporations may be extremely difficult to obtain. And bankers infrequently provide regulatory

authorities with clear information. We believe that firms that have good access to information have a better basis on which to make their risk assessment decisions regarding investment in a country.

Lastly, business regulation may be unclear or inconsistent. If government regulation of business policy is poor, if corporate tax policy is applied inconsistently across countries, this will raise the cost of doing business and domestic capital markets may suffer.

Opacity in any one or all five of the dimensions certainly will increase the cost and the availability of capital. Are there some countries that have gotten this quite right and eliminated opacity? Are there some countries that have moved to address the very five areas that drive capital markets? Are there countries that have eliminated some of these obstacles to economic progress? Yes, there are some countries that have done a better job than others, but no one is going to get a perfect score in this game. We all have work to do.

PricewaterhouseCoopers established an Endowment for the Study of Transparency and Sustainability in which we assembled a team of renowned experts including economists, analysts, academicians and business leaders to develop the Opacity Index. The Index offers some reasonable estimates of cost and availability of capital, but there are no absolutes. The report that we issued in January of this year is the first in a series. We expect to increase the number of countries beyond the 35 that were initially in our study in the coming months. The Index offers what we call an O-Factor, an Opacity Factor, for each of the 35 countries that we included in our initial study.

The O-Factor is a composite score representing data inputs on the five dimensions that I articulated earlier. The O-Factor was then used along with other data on foreign direct investment and portfolio flows in country to derive the impact of corruption and opacity on capital markets. As much as people would like to define the Opacity Index as a ranking, it is not a ranking. The Index presents a score. Perhaps a more productive use of the O-Factor is to look behind the scoring of the individual dimensions of the Opacity Index because it is on those dimensions where we need to focus our attention to improve the strategies that underlie our economic policy, our legal systems, our accounting standards and the like.

The Opacity Index relates very well to other measures that have been developed by the World Bank and Transparency International. In fact you will find some correlations. The difference, however, is that this is a new measure in that it enables more focused attention on selected aspects of opacity. We can also estimate the hidden differential effects of opacity on the cost and availability of capital, using not only survey information which is relied on in other measures, but also publicly available data, statistical financial data as well as other primary and secondary research.

How will the Opacity Index help? It will help in a number of different ways. It can be helpful for private and public sector decision making. It can be used by businesses to make more informed choices about the relative risk associated with investment in one country versus another country. It can be used by governments to focus on their strengths and their weaknesses as they look to improve their infrastructure to make it more inviting to investment. Governments can use the

Index to track their progress over time as they institute legal and regulatory reforms in their systems of governance.

We are looking to create a new language in our discussions of corruption. This Index gives us a sense for the very first time of what our behaviors have cost us in terms of foregone foreign direct investment opportunities. It therefore hopefully reinforces the argument for transparency that has been made so eloquently by others in the past.

There were some operating principles in the conduct of this evaluation and in the publication of future results of the Opacity Index. We at PricewaterhouseCoopers intended for the Opacity Index to be a public good. Coming from many years in government into the private sector just six weeks ago, you don't know how important those words were to me—that the private sector intended for something to be a public good. Our operating principles were that the Index, the evaluation methodology, the data that we used, the formulas that were designed to provide the results, would all be available to the public. And they are. They are on our Web site for your consumption and use. We want dialogue about the Index. We want dialogue about strategies that work. We want exchange about best practices. Our Web site allows for comment, for criticism, for sharing of ideas and information, and we invite your input.

Let me talk a little bit about the methodology that we used before sharing with you the results that were outlined in our first report. First, we assembled a survey team that went around the world and conducted interviews of chief executive officers and chief financial officers of medium and large-sized businesses. We talked to bank loan officers, we talked to equity analysts and we talked to our own PricewaterhouseCoopers staff in the 35 countries that we had selected. The questions were similar, but they were customized to be responsive to the expertise of the individual interviewees. The countries we selected represented all major emerging markets and a few mature industrialized nations. The countries therefore can be grouped by geographic location and they can also be grouped by the national income levels.

We asked our survey population to indicate the importance of the five key dimensions of opacity in determining the cost of capital. We had a team of renowned expert economists from around the world to use those survey results across the five dimensions and create an overall opacity score—the O-Factor score. This composite score represents the level of opacity in each of the 35 countries.

The economists then used that opacity score in conjunction with data on foreign direct investment, on portfolio flows, to determine the economic cost of opacity, i.e., a measure of the risk premium paid by governments for borrowing. National governments obtain funding from the international marketplace in order to meet their spending needs and pursue education, national defense, infrastructure and investment. Sovereign bonds, by their nature, backed by the full faith and credit of the government, are then issued and traded in countries representing an important aspect of that country's participation in the international capital market. We looked to determine if countries with more opaque practices generally paid investors more by way of a risk premium, a spread if you will, over what any benchmark country might pay. An example benchmark might be the United States, because our default rate on bonds is relatively low. We looked to understand

what portion of the price of an asset results from opacity. We recognize that the price of an asset already reflects some market assessment of the risk of that particular investment.

So we developed three related data streams: first is the O-Factor, second is the risk premium that countries pay for borrowing, and the third stream was a tax-equivalent view of opacity. This is the additional tax, the hidden surtax, that businesses pay when they invest in country due to the opacity—the corruption—in particular countries. At the end of April we will produce yet a fourth measure, and this is foregone foreign direct investment or lost opportunity for foreign direct investment in country due to corruption and opacity.

Looking at the results of our analysis across the first three data streams, for those of you who have a mathematic appetite, again I will not disappoint. Our survey results generated a score for each question from each respondent. We converted the survey results to a uniform four-point scale and we equally weighted each of the dimensions for input into the formula. We did not make an attempt to determine whether or not legal opacity outweighed regulatory opacity, or whether accounting standards were more important. We will leave that for you to do should you choose to use the formula. You can apply certain weights according to the value structures that you place on each of those various dimensions of opacity in your country.

Let's look at the results. What you'll see are the 35 countries arrayed and across the top, the five dimensions of opacity. First notice that all the countries are in alphabetical order, not a ranking system for countries. The best possible score would be a zero, meaning that all of the respondents felt that all of the five dimensions of corruption or opacity were perfectly clear, perfectly transparent. There are none there. The worst possible score would be 150, indicating that all the respondents felt all of the five key dimensions of opacity were perfectly opaque—happily none there also.

We use Singapore as our benchmark because they have the lowest score based on the survey results. Again, the O-Factor, the Opacity Factor, aggregates survey results across the five dimensions rather than from any one zone of inquiry. Therefore, some of the O-Factor scores may seem a bit inconsistent with some measures that you've seen in the past, again, because we've included dimensions that have not been surveyed in the past by any of the other organizations.

Let's move to a regional comparison, our South American neighbors. Again, we have Singapore as the benchmark. Chile scored a relatively low O-Factor among the 35 countries. Our survey indicates relatively low levels of opacity in Chile. By comparison to its regional neighbors, Chile appears to have more transparency across the five dimensions than Argentina or Peru. However, using the Index in a different way, if you look under the economic policy column, it appears that there is opportunity for each of the three countries to focus their attention on how they might undertake some improvements to make them even more attractive to foreign investors.

Another regional comparison here—Indonesia, Thailand and Pakistan. If you look at Indonesia, their levels of opacity are relatively higher across the five dimensions when you compare them to Thailand and Pakistan. Again, there are targets of opportunity clearly in the legal and economic policy area.

The second measure of opacity is the tax-equivalent view. Here the measure we developed relates to opacity having the effect of a surtax on foreign direct investment, which is equivalent to an increase in the corporate tax rate for a country. Foreign direct investment is recognized as being very important to economic growth, particularly in developing nations and emerging economies. It provides needed technology and the know-how to develop managerial and marketing skills in country. Therefore, every unit of lost foreign direct investment is a lost opportunity for faster economic growth.

Let's look at the survey results for the tax-equivalent view. Again, looking across the same 35 countries, Singapore is our benchmark. An increase in opacity from the level of Singapore, to which we'll attach a zero, to the level of Brazil, has the same negative effect on both domestic and international investment as a 25 percent increase in the corporate tax rate. Looking again at a regional comparison, here you'll see tax rates ranging from 17 percent to 34 percent over that of our benchmark country. Again, this is a hidden surtax on foreign direct investment—the cost of opacity.

Of course the estimated increases in tax to firms does not generate tax revenue for the government. There is no benefit there. And many countries look to reduce their tax rates to provide incentives to investors, or countries that may oftentimes offer very generous concessions to attract foreign investment. Importantly, our studies suggest that a high level of opacity can easily offset the benefit of a tax cut. In other words, if a government were to choose to focus its efforts to reduce opacity in countries, such reform efforts may be more effective at increasing domestic investment and attracting foreign direct investment without reducing the tax revenues to government. Opacity costs us.

Let's look at the third view of opacity in government. The third data stream is a calculation of cost defined in terms of a nation's risk premium on the cost of borrowing funds. How much more does a nation have to pay to investors to buy sovereign bonds because of the opacity level in country, because of levels of corruption in country? National governments use various methods to raise capital including bank loans and equity bonds. When we asked chief financial officers, bankers and equity analysts, and PricewaterhouseCoopers staff in country to quantify that premium for each type of cost of capital in which they were familiar, we were able to develop a risk-premium view that calculates the premium cost on borrowing that countries pay.

Let me give you three caveats to this calculation. One, our calculation allows for countries that had very lucrative foreign currency reserves in country. In effect this means that the risk premium that they pay is lower. Second, countries issuing bonds in hard currency typically pay lower risk premiums than others. And third, some countries were able to borrow at very low interest rates, lower than our estimated risk premium, as a result of situations which economists term extreme financial repression. That means that governments crowd out any private investment through macroeconomic means such as the imposition of substantially low, below equilibrium, interest rates. This financial repression generally indicates a lack of investment opportunities that can compete with government issued debt. Individuals in country don't have any other options. They don't have the opportunity to invest in savings or investment instruments outside of country because the in-country savings instruments are the only mechanisms available to them. Therefore, they bear the end-cost of these financial repression policies and unbeknownst to them these savers

provide an involuntary subsidy to their government. Keep that in mind as you look at the risk premium.

The opacity risk premium is presented here in terms of basis points. So, for example, the 639 basis points for Argentina translates into an additional 6 percent that Argentina must pay to investors because of the opacity levels in country or the risk associated with investing in the sovereign bonds of that particular country. You'll notice throughout the chart a high correlation between the O-Factors and the opacity risk premiums. Interestingly enough, we found that a one point increase in the O-Factor leads to a 25.5 basis point increase in the interest rate that investors demand in order to purchase new issue bonds from a country. The cost is high—extremely high.

Let's look at Poland with 724 basis points associated with opacity in country. Were Poland to issue 4 billion zloty in government bonds, that's equivalent to about \$US 1 billion, the opacity risk premium implies an interest expense of approximately 180 million zloty. That's about \$US 70 million per year which could be avoided by simply reducing the opacity or at least targeting those strategies that had the most significant effect on the opacity level in country.

I'll try to draw some conclusions about what we've learned with the Opacity Index. We've learned that our behaviors cost us. The levels of corruption in country, the unpredictability of laws, inconsistency and unpredictable nature of economic policy in country, unevenness in the application of accounting standards and release of information across firms and the uneven regulatory environment in our governments of business practices all cost. The cost is real and affects sustained perceptions over time by potential investors. The perceptions are that business opportunity is not transparent, it is not even-handed and ultimately investment is not worthwhile in one country versus another.

As a preview of coming attractions, as I mentioned earlier, at the end of this month we will be issuing a second iteration of the Opacity Index which will include analyses of cost to countries defined in terms of foregone foreign direct investment.

We look forward to the opportunity to hear from you. We invite your input and your discussion, and the opportunity to invigorate the debate about the cost of opacity in government. Please see our Web site for the details of the study and the methodology developed for your use. Thank you.

The Integration Between E-Business and E-Government

Mike Dufault, Deloitte Research

Thank you Graham, Mort Dittenhofer, as well as the rest of the Consortium. Please bear with me. In Pittsburgh, even though it is April and spring, it is still unfortunately very cold and I believe I have caught a cold. I also apologize for the fact that one half of the slides did not make it in time to be translated into Spanish, but I understand that by the time the presentation gets put up on the Web site it will be fully translated.

When Mort contacted me and told me the topic of the presentation today would be “The Integration Between E-Business and E-Government,” I initially said, “Boy, that’s great. It’s a fascinating topic and everyone on the globe should be concerned with it.” And then my second thought was, “Hmm, if I look at the financial pages in papers around the world and find that stock markets are down, dot-coms are failing and venture capital has all but disappeared, maybe I should talk about something a little more happy like golf or music or the beach or butterflies or something else that’s not quite as depressing.”

But this concept was very well chosen by the members of the Consortium. If it is not well understood now, then I’m afraid in the future, e-business and its integration into e-government could only wind up making customers, citizens, businesses and whole communities worse off than when they started. So despite the current wariness around e-business and all the negative things that you might have heard going on in the world, this really is a great opportunity to learn not only from what’s going on currently but also from what we see when we look a little bit into the future. More importantly for governments, the old disparaging comment that the public sector is so much slower than the private sector really shouldn’t be taken as disparaging right now. On the contrary, this is an opportunity for governments to learn where businesses have failed and to succeed where they have not done such a good job.

I know that in the five days that you have at the conference you’ll be hearing about all the specific technologies and strategies and management philosophies. So I thought that in the brief time that I have here today the best way for me to give all of you value is to really talk about the big picture—what’s going on with e-business and e-government, talk about some of the major trends, talk about some of the future things of e-government. And most importantly, I’ll conclude with what this really means for folks in financial management.

To start with, let’s get an idea of just how big this e-phenomenon is throughout the globe. The numbers I’ll be presenting here were culled from some of my friends in research firms such as Gartner and Forrester and IDC, very reputable firms. The first number you see is from the year

2000, which was last year, and the second number I'll be putting up is for the year 2004, which is five years out.

To start with, in the year 2000, Net users numbered 400 million throughout the world. Anybody have any idea what they're predicting for 2004? They are saying there will be about 700 million people connected to the Internet. What does that mean for commerce? Well, for business to consumer commerce, or typical business done over the Net, they estimate that in the year 2000, \$100 billion of commerce took place. For 2004, they are estimating it will be \$700 billion.

We are hearing a lot now about business-to-business commerce, estimated to be \$1 trillion. In five years the estimate is \$7 trillion. After that we're not really sure. With all the current downturns in markets you might think that these numbers look a little bit high. But I really don't think so. It also doesn't mean that e-business is going to fail or by extension that e-government is going to fail given what is going on today. Quite the contrary. I think what will happen is what usually happens and that is that the strongest ideas will live and will thrive. This is where governments really need to learn.

So you have a basic idea about how big E is. So the obvious question now is: How do we succeed? Today is your lucky day. Actually the answer is much simpler than you think, and that is to start off with the premise that e-government really is e-business. It really is the business of government. What that means is that in the future all you'll need to do is to transform your enterprises to increase the value to your stakeholders and worry about different value chains of service delivery that will ultimately lead to improved customer service. And while you're at it, make sure that you have your Internet, your customer relationship management and your enterprise resource planning tools all integrated behind the scenes with data. Make sure also that you manage channels of service delivery correctly and practice very sound financial management and transfer your knowledge to all your employees and then also manage your revenue streams and make sure you have cost accounting and human resources all figured out. You'll probably want to integrate all those into your technology because what you really want to do is have 24—7 all-day, any-day access to your services because you want to provide one-stop services. But if you have to market all your services to your customers, make sure they're going to be using them. And at the end of the day, what you'll do is eventually lower the cost of doing business and improve the value of service. So, there you go. It's all very simple. I'm sure there are no questions. Graham, thanks for your time. If you have any questions please let me know later on. I'll see you next year and have a great time at the conference.

Wow. That's pretty impressive and that's also pretty scary. Right now a lot of you are thinking, "Okay, smart man, if it's this easy, why don't you just come to my government and do it for me? And I'll go play golf or I'll go to the beach." Well, obviously there are so many interrelated technologies and concepts that it's often difficult to even figure out where to begin looking at e-government or even where you see yourselves as governments on a continuum. So let's do this. Let's just forget about this for a minute. Let's break down the big picture into pieces that are a little bit easier to understand.

Let's start from the top with some basic principles of e-business. It's basically just the use of the Internet and related technologies to facilitate communication, collaboration and commerce with

customers and suppliers. We can think of all businesses and e-businesses in particular, as having an inside where they have this sell side which essentially deals with customers. The main goal in dealing with customers is to ensure that they are very loyal to your organization. It is a very mutual and dependent relationship and the closer the customers get to the company, the more you'll be the provider of choice. Ebusinesses also have a buy side where they are concerned with having suppliers who provide them with all sorts of materials and information to make the products that they need. Here the main concern certainly is tightening up the supply chain and making sure that the goods flow as freely as possible in a most efficient manner—again, a very mutually dependent relationship. The tools that you use to make all this happen of course are e-procurement, ERP, Internet, customer relationship management (CRM). These aren't really foreign concepts. They've been going on for a while. So this is a simple look at e-business.

Now lets take a look at what e-government is essentially, and I'm sure you'll note a lot of differences. Let's start off with a definition. It is the use of the Internet and related technologies to facilitate communication, collaboration and commerce with customers and suppliers. Hmm...that's the same definition as e-business and I didn't just write it that way to make myself look smarter. Structurally, e-business and e-government are very much the same. You can think of them as both having an inside. They've got a sell side where they deal with customers and the customers can be citizens, businesses, organizations or other governments. But instead of worrying about loyalty, which is something that businesses are very jealous about, governments essentially have 100 percent customer loyalty. So rather than have to worry about people not using your services quite as much, the main focus is on satisfying customers and meeting their needs—again, mutually dependent relationship.

They also have suppliers—the same thing about providing raw materials and goods to make the products and services that they use. They are also very concerned with making the supply chain as efficient as possible to facilitate the easy flow. The tools they use simply are the same—the Internet, customer relationship management, electronic procurement and ERP. One of the big differences though goes back to what e-business is all about; the main motivations are to increase profits or to increase stockholdings. But as we've seen with the dot-coms, the two of those aren't always related. Government is a different story and even though I'm sure we can all say that there are many different reasons for government, the goal of government is to be as responsible as possible with government funds.

The bottom line is that e-government and e-businesses really have the same basic structures. They seem to use the same technologies and use the same tools, and essentially have the same goals at heart, metaphorically speaking, the metaphor being that those governments that are most responsible or demonstrate the most responsibility would have the highest valuations.

So at this level the fundamental concepts and practices are the same. To really understand the integration between the two, let's look at some of the major trends going on right now. We can see some great similarities and differences.

You could say that there are a million things going on right now in e-business and by and large e-government throughout the world, and that trying to pin any of these down wouldn't make any sense. But I don't think that's quite true. I think we can learn a lot by looking at what the hottest

topics are. Let's start here. For e-business, certainly one of the biggest things that businesses are looking for are the correct business models. Dot-com companies really need to move away from advertising only and find different sources of revenue that are based on fee for services. Many of them will collapse; many of them will die. And I think a lot of this is basic economic principle. How many customers are out there to support auction sites? There are probably not enough to support 500 worldwide. Some of them are just destined to die. This is a case where the more established businesses, or what we call bricks and mortar companies, have an advantage over dot-coms simply because they have an established customer base.

On the e-government side, we don't need to be concerned quite as much with getting business models right now because we're not going to collapse and die if we don't plan correctly for e-government. That's the big advantage. The bigger disadvantage is that the concepts and practices aren't well understood and inefficiencies early on in the process will be carried out over a much longer period of time.

Back on the e-business side, e-businesses are using electronic portals that really build communities of customers to help in such things as product development, marketing and distribution—essentially trying to get closer to customers.

On the government side—many governments have portals that are up in operation throughout the world. And what they're doing right now is trying to move beyond just offering information on the portals to offering two-way interactive transactions. Some of these are already in place right now, generally the easiest things such as tax filing, permits and licenses, and registration. And they are certainly looking to go further on in the future. Many governments have already said, "We plan on having all of our information and our government services online by the year 2004, 2005." I happen to think that's pretty aggressive and it is probably going to lead to a lot of disappointment, but I certainly admire governments for trying to dedicate the resources to make that happen.

Certainly one of the largest things happening in business nowadays is in customer relationship management. Again, what they are trying to do is to develop loyalty networks of customers to make sure that they are seen as a provider of choice. In governments that have tried customer relationship management, they are primarily doing so to help out with improving services and lowering cost.

Back on e-business, certainly one of the most advanced uses of the Internet so far has been in electronic exchanges, whereby organizations use the Internet to purchase things ranging from minerals to plastics to energy in the hopes of saving costs for bulk discounts. Some of that is taking place right now in governments, just on a little slower pace. The place where government is really advancing is where they are looking at a multi-jurisdictional approach to this with different agencies in a government enterprise banding together to use exchanges. There are even examples in the United States where different states are banding together, again, trying to get the cost efficiencies of bulk buying.

What they are really trying to do is to move as far as they can into the convenience aspect of things, and this is done by offering 24—7 or 24 hours a day/seven days per week access to the companies. At the forefront, e-businesses are trying to plan for what they believe is going to be the

really rapid onset of wireless technology—digital handheld devices, cell phones, etc. Governments in e-government are making similar promises by saying, “You’ll have access to all of our services all day every day.” Is this going to be easy? Again, I appreciate the dedication of a lot of governments making these promises, but is there really going to be someone there at one o’clock in the morning when someone has a question about filing online taxes? I’m not really sure. I wouldn’t bet on it happening everywhere.

Lastly on the e-business side, companies are constantly changing what they consider to be their core competencies or what they want to do best. So they really have been doing an excellent job as far as we can tell about identifying their core businesses, acquiring through either merges or acquisitions businesses they think will help out their bottom line and discarding the things that are not profitable. And so you can say that the core competencies fluctuate with the times.

Government is in a different situation. Historically, we find that governments have been asking themselves more and more, “What business do we want to do? Do we want to conduct everything in the service delivery value chain?” And the answers have largely been, “Well, not really, particularly because we don’t have the staffing or the budgeting to do so.” So they’ve been looking more outside of government to help fulfill customer needs. In that sense they’ve been declining over time.

So let’s summarize. The strategies for e-businesses so far have been to increase their customer base, get closer to the customers, to be the provider of choice, so that hopefully they can survive long term in very turbulent times. Government has some related things. They’ve picked up on a concept called customer centricism, and I’ll talk about this in more detail momentarily. But the general strategy in the e-world is we think that we need to automate everything, integrate everything and put everything online and we’ll worry about finding the real value in all this later. We hope it will generate value; we’re not really quite sure.

So is it all working out? Is e-business translating into higher profits and higher stock? Is it making government customers more satisfied? The answer of course is a resounding, “Somewhat.” Somewhere it is, somewhere it is not. The bottom line is that business valuations globally are probably higher than when we started, and I think that we can identify certain pockets where e-government applications have made customers better off. But all is not perfect. We read in our magazines and we hear word-of-mouth from friends, read in the newspapers and even see on television, “This is the greatest thing sweeping the world.” But there are problems that should really not be glossed over.

Let’s take a look at a few of these things, and there are only a few, to see if we can learn how to apply these to e-government. First of all, as we mentioned in the e-business realm, profitability is not always a given thing. Just because things are automated and integrated and all sorts of wonderful things doesn’t mean that businesses are necessarily made better off. On the government side, it is just the same. We’ve put in new technology, we’ve put in new business processes, but we’re not really sure. The problem here is that both businesses and governments are looking at innovations as a must have, but they’re really not entirely sure of how to plan for measuring value.

On the e-business side, because a lot of online services have already been up and running for a while, they are wrestling with really looking at where customers prefer to do business with them. Is it through the online channel? Is it through traditional channels? Where do I invest my money? And they're not entirely certain. Government is just slightly behind in that they need to make sure the customers are even aware that their services are online. Again, this is all for the inside, but they really haven't done a great job so far in telling the population that the government is actually entering into the digital age. The thing to remember is, when customers come to our Web site, are they going to like what they find and are they going to want to stick around? That's why a channel management strategy is important. We'll get to that in a minute too.

Lastly, e-businesses need to be concerned that their intermediaries or their providers, such as Web hosters and other intermediaries, are even going to be in business next week, let alone next month or next year. That issue is prevalent in e-government as well, but generally what they need to worry about is their internal capabilities. Again, if they don't invest heavily in internal staffing, then how can they expect to work effectively and efficiently with the outside world?

So what have been the responses so far? Well, on the e-business side, they try to get leaner—not necessarily smaller. They just make sure they trim the fat off their operations, which could mean acquiring or merging with other companies. Let's invest in a lot of loyalty; let's invest in customer relationship management and really try to be the provider of choice. And for things that we're not really sure that we can do, let's partner strategically outside in a way that if circumstances change we can alter our makeup of strategic partners.

The government side so far is a little bit different. As I said before, they are still under the impression that they need to automate everything. In and of itself it is not a bad thing. It is really what the new e-government is. Some people have begun to market new channels, create awareness of their services and generally they've been trying to outsource more.

So what have we seen so far? Well, we've seen that conceptually and structurally e-business and e-government are very much related. We've seen the major trends are very related; just that e-business is ahead of e-government in implementation. Both are looking for good business models, both are using the same tools and both need to be concerned with the well-being of their customers. So in the time that I have left, let's just concentrate on the e-government side, look at where all this is going and what it means to you as financial managers.

The next few slides I'm going to present are taken from our Deloitte Research Report called "At the Dawn of E-Government the Citizen is Customer." I only have a few copies with me. If you'd like to have as many as you'd like afterwards, I'll make sure that you acquire them. Essentially, we released the report last year and it is based upon a survey of senior government executives in U.S., Canada, U.K., Australia and New Zealand. We have a lot of information in the report surrounding e-government and how governments want to move forward. I'd like to just present you with the most striking figures right now and see how this relates to the future.

We asked executives to tell us what percentage of their customers were accessing their services primarily through the Web last year and in 2002. It started out as 12 percent in 2000, which I think is just a little bit high, but governments are expecting that by next year 34 percent of

their customers—and this could mean citizens, businesses or organizations, anyone that deals with them from the outside—will be using the Web as a primary means of accessing their services. This says two things, one of which is that governments have high expectations that this Web channel will be very viable. And secondly, the value of fulfillment is actually going to be sufficient enough to keep customers on the Web. But as you know, there is a lot more to the Internet than just a pretty Web page or a pretty portal. We have databases and middleware and integration issues that need to be addressed to cut out the fat and duplicative processes in order to achieve real value enhancement. This is for the customer side of things, and it is slightly different for internal business processes like your financial management applications, etc. But I'm addressing this now because it does bring up very relevant issues to both sides.

Forty-five percent of executives thought that technology was one of the main things that help to improve customer service. That is really not surprising today given the fact that we're talking about E and technology is E. But almost one-third, 32 percent, see their current technology as a major inhibitor to moving forward. I think you can all relate by saying, "The system we have in place here to handle our asset tracking is 20 years old. It's not good enough." Don't be surprised and don't feel alone. That is going on throughout the world right now. And it is also what is causing a lot of the rush to say, "We need to automate everything. We need to get into modern times."

Our data also shows that spending on technology will outweigh, at least up through next year, spending on staffing by a factor of about two-and-a-half to one. The danger here is that it brings up the tendency to let the need for speed take precedence over the need to plan for and measure value. Speaking of value, I think that should be the real basis of e-government. Again, it is a very generic lesson, but I cannot overstate its importance. Unfortunately value is not really well defined in a standard way throughout the world. We tend to think of value as being different things—faster, better, more convenient, less money, makes me look taller, will get my hair back, I'm not really sure. And there are many more things depending on our unique situations.

So rather than create a huge matrix, let's think of the basic economic principles of value and see how we can apply them forward. Let's take two service delivery channels, A and B. Each has the cost associated with it and a resulting level of fulfillment. Here is what E is supposed to do. E is supposed to come in—and we can think of this as the Internet or any other technology—and be a substitute or a complement to a current process. So once we have it in, over time, the cost of doing business through this channel will be low. The resulting value of fulfillment—it's better than the old way—will certainly improve. The problem comes in, if it's not planned correctly, when the Internet or any other technology is introduced and it ultimately only adds extra steps to the process of fulfilling a customer need. That really makes customers and governments worse off. If I had time we could spend a whole day talking about this stuff. I'd be happy to do this this afternoon, but I think this is really the nexus of planning, and we'll see later how much more important it is.

So the question is, "Is he almost done talking and what's for lunch?" No, the question is "How do we give and get better value? How do we make sure that we're getting value and not making this a big disrupter and making people worse off?" I've got some answers for you, and they are very encouraging, I'm happy to say. It is something I brought up before and that is the issue of customer centricism. The concept has been around in the business world, and particularly in

e-business today, because it is at the forefront especially with so much vigorous competition for customers. Our research shows that it is really taking foot in the government aspect as well, and it is very encouraging.

We asked executives to tell us their main reasons for improving customer service—and this could be for internal or external processes. The top two reasons they gave us were: to meet customer demand and to better leverage taxes. We can translate these things to mean that governments really want to better satisfy their customers while at the same time lower the cost of doing business. And you can see how applying this philosophy really fits into using E as a complement or substitute rather than a disrupter. Sounds appealing—nice words, great concept. You came up with it in the white tower. Does it work?

Well, so far our research says yes, and this is also very encouraging. We found that customer centric governments—governments that were able to better satisfy customer demand while lowering the cost of doing business—achieved excellent results in a variety of different performance areas. No fewer than 60 percent of governments achieved these different performance goals compared to non-customer centric governments where no more than 42 percent achieved these same performance goals.

So far we've talked about how e-business concepts and tools are integrated. We've talked about value and technology. I put up some pretty pictures. So the next question, besides what time do we get to go to the beach today, is what does the future hold?

Well, if we consider really the main trajectories of e-government as we've presented them today, we know that information is converging and we know that what is also converging is the technology behind the public view. Governments are really committing themselves, the ones at the forefront of the e-government movement, to providing an enterprise view of themselves for their customers as well as for themselves. And this is leading to a consolidated view of government, or we can simply state a one-government view. This does not mean that after all is said and done there will only be one government entity in the world. What it does mean though is if the current trends in portal development continue, then all customers—governments, citizens, businesses, all stakeholders involved—will be able to conduct business with each government entity through a single one-stop portal. This is essentially what governments are saying they want to do. It will be characterized by end-to-end fulfillment, intergovernmental resource sharing and communications, personalized to users' preferences, including electronic payments. This scenario will need to be supported on the back end, and things like ERP and data warehousing can essentially take the form of a master customer profile for each government customer—be it a citizen, a business, organization, etc. And this is really what happens when customer relationship management grows to its fullest potential under the aegis of customer centricism and personalization.

Governments will not only be able to get closer to their customers with contact management and streamlined payment capabilities, but by using more accurately tailored marketing communication governments will seek much more customer input to help with strategic planning, service and product development and ultimately program management. This is government's one-stop view of their citizens, and it will require much more sophisticated demand forecasting and channel retention strategies to manage how customers acquire services.

Already some governments are trying to segment their customers just like businesses do, based on preferences and the cost to maintain different channels. Clearly this is really the nexus of the privacy debate. It's pretty easy to see. That is, how much customer information should government centralize and distribute? And it is really a battle that is going to be fought in legislatures and communities throughout the world because we really don't want to turn this into a six-hour policy forum. I will just say that if the current trends in customer relationship management continue, this is essentially where the relationship is moving. And if it does, we can think financially that it will all be supported by at least a unified account of each customer's monetary relations with different agencies. We can think of this as a master customer account. Here, governments could really take advantage of integrated billing and payment, account management, etc., to eliminate vast quantities of duplicative processes across the enterprise. How many departments in your governments essentially send out bills, take phone calls, send out invoices—you all do it. Essentially they are duplicative processes that could be centralized. It might be a little bit of a stretch, but I don't think it's that much. Other things are possible—automated bill paying from a special government account, direct withdrawal from paychecks. It might sound crazy now, but so did the Internet at one time.

When we consider all these facets of e-government in this way, it is pretty easy to say, "Mike, you're crazy. All this stuff is so complex and unpredictable that there is no way that any of this could happen. Well, don't bet on it. Think about your governments today. Think about how many of these things are actually taking place, maybe separately. Maybe you're just getting started; maybe you've only heard the word. But convergence is a pretty powerful force. And if governments continue to learn, adapt and improve on e-business practices, these scenarios will become realities much sooner rather than later. So it is up to all of you to prepare, to take you governments into the future that you want.

We've covered so much information in the last 35 minutes or so, which is really not a whole lot of time. I hope this was valuable to each one of you in your own ways. Nothing about e-government or e-business is easy, and there is no real super guru out there that is going to solve your problems all at one time. You should all be commended for taking part in your own ways to really advance the cause. I appreciate your attention and your humor. So I'll end quickly today.

Three things I would like for you to remember throughout the rest of the conference and hopefully as you go back to each one of your homes. First, remember that the customer centric approach pays off. When you are starting new e-government initiatives, think of who your customers are, what needs they have and how you can satisfy their needs.

Focus on all aspects of the enterprise—different departments, different policies, different staff—because all will be involved some way or another. And when you do, make sure you concentrate on value. When you are implementing new systems, new applications, new financial management controls, using new partners to help you out with auditing, make sure that they are really providing you with the value that they say they are. Not all innovations are practical, or else everyone would own a yo-yo, and I don't anymore. So make sure that you really plan on measuring what your new innovations bring.

And lastly, and probably most importantly, remember that e-government is not i-government, i-government being Internet-only government. On the customer side you will never get all of your customers, all of your citizens, all of your businesses, to use the Internet for everything that they need to do. It just won't happen. Theoretically I suppose it could. Practically speaking, I doubt it will. So you always need staff, you always need people, to handle customer issues.

This brings up the issue that you also need a really effective strategy for managing your investment priorities to maintain different channels. Inside, again, it might be a different story. Web things replace old processes, but don't forget the human element will never disappear in this. It is too critical.

And how are you going to pay for all of this stuff? Well, I'd love to say it's all free and, believe me, I'd love to pay for it for all of you if I could, but I can't. Think of the funding, though, as a portfolio. You have a portfolio of funding options. Some functions should remain as direct appropriations. Other things can still have fees charged for services that can be charged back. Still other things should be free. And the value of your portfolio will be maximized when provisional costs are balanced against revenue streams and service levels.

Just for fun, I counted up 50 general functions that are the responsibility of financial managers—everything from asset management to budgeting to worrying about facilities. There is no way in the 40 or so minutes I had today that I could really address all of those issues. But I hope that I gave you enough of an understanding of this big world of integration between e-business and e-government that you can at least take these back to your home and try to apply them on a daily basis.

Remember that there is no first-mover advantage in the e-world. You are governments. You have a little bit of a luxury that you won't go out of business. So it is not a race to be first, it is a challenge to be the best. Thanks very much for your time.

The U.S. Government Initiative on Informatics

Basil Pflumm, Vice President, U.S. Institute of Internal Auditors

I'm very happy to be here today with you. I think it's an honor anytime you get to address such a prestigious audience of supreme audit institutes. Also, you are well represented by some of the leading financial firms with operations around the world. So I'm delighted to be here with you.

I was really very impressed with Mike Dufault's presentation and your keynote presentation today. I've got to compliment the organizers of this event. The organization is excellent, but I also have to compliment you for being here. It takes two sides to make one of these things work.

I'm going to talk to you today about something that's been very dear to my heart for about a year, and that has been a unique partnership which I think offers people in your business and my business a unique way to provide for what our first speakers talked about as the common good. And in my heart of hearts I really think that's what we're all about, whether we're serving the national defense interest of our countries or whether we're serving our professions. We are in fact serving the common good. We're there to do what we do for the benefit of our citizens.

For the last year The Institute of Internal Auditors has been involved in an activity that I could have never predicted. It has been a quick ride, and I hope I can convey to you some of that sense of opportunity. While Mike Dufault provided you with a really strong sense of the opportunity of the Internet and e-business, I'm going to address what I think is the cost side. Some people would refer to it as the dark side or the things that we have to worry about, but I'm going to say to you at the beginning that we have to change our mindsets from one that says the things that are important to our countries and to our organizations are the things we can lock in safes and put perimeter fences around. When we're dealing in electronic assets, the intangibles portion of a balance sheet becomes the more valuable piece of that entity or enterprises assets. And that's much more difficult to lock up and protect. That's what I'm going to talk to you about today.

First, I'd like to make sure you understand what The Institute of Internal Auditors is all about, so just bear with me for a minute. The Institute of Internal Auditors has about 73,500 members currently. We have only about 30,000 of those in the United States and while we're normally thought of as a U.S. or American organization, the U.S. and Canada constitutes less than half of our membership today.

We're committed to a program of doing three things: We first of all create research and the standards for the profession of internal auditors, and these are undergoing substantial change today. They are available to you free of charge on our Web site.

In addition to internal auditing itself, we also try to raise the level of professionalism by providing a comprehensive exam that is growing by leaps and bounds around the world. Last year we had around 8,000 parts of the Certified Internal Auditors exam taken in the People's Republic of China alone. This is moving rapidly throughout the world. We created an objective a few years ago to double the number of CIA applications. We set a five-year goal. We met that in three years. So it is something that's being recognized around the world as a mark of achievement.

Finally, we judge and raise professionalism by outside reviews of how well auditing organizations are in fact meeting the requirements of the Standards for the Professional Practices of Internal Auditing.

That's The Institute of Internal Auditors, so you have some understanding before we in fact get into our partnership. The partnership was unique and a one-of-a-kind thing for us that I'll go through in detail later. But first, why would we want to do this?

Today, every day, every minute, billions of bits of information are flashed routinely from one company to another. You all are familiar with e-business as Mike Dufault talked about earlier. But the much more common application is business-to-business applications. Even within your companies and your governments, business-to-business is becoming very common. But once one computer somewhere is connected to another computer somewhere else, a vulnerability exists. It's a vulnerability that I think is the business of the financial community but is often thought of as a technology problem. There are threats and vulnerabilities surrounding information security. So we lock the stuff that's in cyberspace so that we can in fact protect the assets of our individual companies as well as house the privacy that we owe to clients.

You all know that this is a global issue. Everybody in here understands that. Just take into consideration what happened within the year 2000 when the denial of services attacks came to widely known organizations such as Amazon.com and E-bay. Those sorts of things actually brought their business operations to a halt for a period of time. Even more importantly, perhaps, was the ILOVEYOU virus. Many of you will recall that that was created in the Philippines by a fairly young individual. It closed down many large organizations and it taught me two things because our organization was one of those. First, that a lot of people are not informed enough in computer business to know not to open exe programs. So many of us opened those and then in fact found out that we were sending out e-mails and ultimately closing down our business operations. Second, we learned that our operations, since they are increasingly reliant on electronic means, are very susceptible to threats and vulnerabilities that originate anywhere in the world.

So why does this involve the U.S. Government? Why does it also involve The Institute of Internal Auditors? The why is because we think that it is our job to get involved in risk management and this is a risk of doing anything today, whether it be governmental or commercial activities.

The first why is: Why information security? I think I've already led you into that with the information that many of our assets today are tied into cyber assets.

Why the Critical Infrastructure Assurance Office? Such a large title; it's hard to get our arms around it. But the U.S. Government was very concerned that those things necessary for the ongoing economic life of U.S. citizens could not be protected unless the private sector leaders engage and support information security activities. The auditing community, both internal and external, was viewed as a bridge to the boardroom and the executives who could in fact make a difference in those organizations.

Why now? Because of the increasing threats, because of things like denial of service, Ebay viruses and things of that nature, we need to get involved now. Directors, senior managers and auditors have to recognize that this is a new element of an old business, and that is the business of managing risk.

And why The IIA? Well, we were quite honestly honored, but actually internal auditing organizations, whether they be in government or in the private sector, are often the people with the greatest entrée to the board of directors.

For those of you in government I wanted you to be aware that this started in 1997 and 1998 with some Presidential documents that were created to determine how much of a threat is out there and whether we should be concerned about it. Starting with an Executive Order, followed by a blue-covered report called the Presidential Commissioned Report on Infrastructure (a copy of which is available to you), it was finalized with a Presidential Directive that established the Critical Infrastructure Assurance Office in the U.S. Department of Commerce.

If you think this is a partisan issue that may go away in the United States with the change of administration, it is not! That office is being retained. In fact, if anything, it will probably grow in importance. This is a bipartisan issue within the United States.

Just to give you a few statistics on the size of the problem and so you can get some idea of those things that we're really trying to attack, just let me make two points. If you look at the companies that were reporting one or more intrusions, you will notice that from 1996 to 1999 the percentage of companies increased by half again as much. Also, the companies that did not report an intrusion dropped from 37 percent in 1996 to 17 percent in 1999. In the year 2000, the source study that figure dropped the estimate to only 10 percent. So it is a growing concern of companies and I have no doubt that those figures are probably light because a lot of people don't know when their electronic systems are being intruded upon.

Let me tell you who's doing this and I want to foot-stomp this one because, since I sent you this slide to be presented here today, there have been even more important statistics that I think you'll find interesting. You can see where intrusions are coming from—competitors as you probably guessed, domestic as well as foreign. You'll notice that the independent hacker is a very high percentage, and there's the disgruntled employee. There used to be a comic strip in the United States called Pogo, which I dearly loved, and one of the quips was, "We have met the enemy and the enemy is us." In this respect I think we all know that many of the untoward things that happen in our electronic systems happen from within the company. But just this year the larger percentage of intrusions coming into the company are coming from without, from the outside in, rather than from the inside. So this is a changing trend.

What sort of things are we talking about? Well, I mentioned to you the ILOVEYOU virus earlier, and viruses are still the most common problem that companies and organizations have with electronic support. And I want to also mention that almost 17 or 18 percent of these intrusions involve fraudulent activity. In other words, it is not all fun and games; it is not people who are just having fun, some 15 or 16-year-old trying to get into your systems. It is in fact people who are doing it for financial gain and irregular conduct purposes. And there is manipulation of data and closedown of systems.

Who is the boss? Now why would I show you a Who's The Boss chart? The only reason I put this up here is to have you take notice that the boss is very often the chief audit executive in your individual countries. And that is a growing trend on this chart. Information security a few years ago was almost always handled, if it was handled at all, by information technologists. But more and more companies are elevating the job or the task of chief security officer or information security officer to an individual outside of the technology division. In Microsoft, for example, the computer security officer reports directly to the CEO, Bill Gates. He has responsibility for computer security only. He does not have responsibility for the operations of the IT world. I think that's a model that we'll see increasingly coming into both public and private sector organizations, and if anybody can relate to that it is an audience such as you who know the value of independence and objectivity in the jobs that you do.

There are some common sense steps to improving information security, and these I think you would find of value in any organization and they don't require technology. In fact, what so often amazes me about this is that the solutions to protect valuable cyber-assets are not technology issues at all. Do any of you in the audience, I know some in the U.S. will pick up on this, remember the story of the Los Alamos tapes that happened within the last 12 months? Well, I'll tell you. Over 800 megabytes of classified information was downloaded by an employee from computers at the Los Alamos Nuclear Laboratory onto unsecured computers and tapes. It turned out to be simply inadequate physical control over the data, stuff that any manager or any person that's well versed in the skills of internal control would have had under control. There is simply too little awareness of the value of information security. So awareness on the part of the staff is a very important issue.

I was giving a talk about six months ago on this particular subject and a young woman in the audience stood up and said, "I've got an example which I think fits exactly what you were talking about." This was a case where an employee of one of our states, for fraudulent purposes, was going into the database, manipulating data, doing all sorts of things that the state really didn't want him to do. And she had been involved in the investigation of that and some of the untoward incidents that followed that state activity. Now this organization, this state government, had a really great policy. They had all the right words out there about who had access to the data and how it was to be controlled. But what they did not have is that documented confirmation extended to their employees. In other words, when they went to prosecute this state employee, they were unable to do anything other than issue a warning.

And why? There was no evidence that this policy had been in fact communicated to that individual, that he understood it, even though he was a part of the information technology department. Now all the employees in fact sign an acknowledgement of compliance with policies,

and systems are reviewed periodically. However, this individual is still on the payroll of the state and basically nothing has happened because they could not prove that he had violated a policy of which he was aware. These are very interesting times.

You can pretty much guess what would happen if our information and communications networks were disrupted in this country or any country around the globe. Electric power grids are largely controlled by computers. Gas and oil production, transportation systems, the airline that brought you in here, are all under computer control. Banking and finance is probably the first of the industries that was definitely connected with business-to-business application. Today large sums of money are moved electronically around the world and it is very difficult to envision those systems broken into, diverted or manipulated in some way or another. Transportation, water supply, all these are more and more controlled by computer technology. Also, emergency government systems, the 911 systems, all the rest of those emergency responses and whatever the counterparts are in your countries would be vulnerable if they are under control of a computer.

The Critical Infrastructure Assurance Office was set up to put in a constructive alliance between that office and The IIA to address auditing and internal audit's roles in providing the assurances needed for both the public and private sectors' continued confidence in critical infrastructure. So this was a bridge, if I can express it like that. On one side you've got the government who understands that most of those assets are in the hands of the private sector—the telephone companies, the computer companies, the communications networks. Most of those activities are not government operations; they are rather in the hands of the private sector. The control systems that make sure that those things are operative at any time are controlled by chief executives in organizations and more importantly, overseen by the directors who represent the shareholders in those organizations. In a few minutes I'll tell you why the shareholders might be very interested.

Internal auditing is increasingly communicative with the boards of directors in terms of giving some assurance that the risk managed within those organizations are a) understood and b) managed appropriately. For this reason, the Critical Infrastructure Assurance Office came to internal audit and said, "Can you bring the directors and chief executives and information technology people into a room together so we can examine this problem?"

The new definition of internal auditing, which I hope all of you have seen, adds credence to what I was saying about our business. I'll only hit a couple of points on this, and I'll also point out that The IIA has been very, very active for ten years with the Committee of Sponsoring Organizations of the Treadway Commission, otherwise known as COSO. COSO is now expanding. You can expect that within the next year or so the COSO control framework will grow to a risk management framework. There is a request for proposal out for which they are now looking for researchers to expand what used to be the internal control framework to what I believe to be a broader concept, the business of risk management. The only reason organizations do risk management is to facilitate better governance of our organizations, whether they be private sector or public sector organizations. Our new definition of internal auditing includes risk and control; there are a couple of new words in there. In addition to assurance we now do consulting work. Our objective is to add value and improve the effectiveness of risk management, control and governance processes.

So here's the constructive alliance. We created the partnership about a year ago, and we just focused on information security. I know that electronic media is far broader than that, but this alliance is focused on information security, and internal auditing was viewed as the entrée to the boardroom.

Let me give you the three objectives of this particular project. I won't dwell on those; I just want you to understand what we were really trying to do. First of all we were trying to improve awareness in government and at the executive levels of management. I realize that many of you are in the public sector, and we were primarily aimed at the private sector. But rest assured, the public sector was not omitted from this particular effort. We just simply weren't heartily involved with that part of it. The U.S. Federal Government had another series of parallel initiatives to deal with those governmental units. But we were creating the bridge to the private sector. What we thought was that often directors don't speak technology. They are really uncomfortable trying to ask the right questions of management to make sure that their stewardship function, their fiduciary responsibilities, have been satisfied with regard to information technology. That was one of the most interesting outcomes of this process for me—to see directors understand that information security was a material risk to both the organization's financial resources and also the value or wealth of the organization.

There were some very interesting statistics that showed that companies that didn't pay attention to their information security once they had a publicly demonstrated closedown, either through denial of services, had a very dramatic downward impact on the value of their stock. That's the point I made a few minutes ago, directors get interested when they see the share values dropping dramatically.

The second objective was to address needed changes in professional practices and principles, to improve information security. There is no question in my mind that when I was doing the business of internal audit for the United States Air Force that my attention to information security was probably inadequate. We need to do a great deal more to enhance our own abilities within the profession to understand the risk. We need to give our directors, audit committee members, as well as senior managers some assurance that somebody knows about these risks associated with information security. We need to have some understanding of what they need to do to fix any gaps that we might see in that security network.

The third item was to address the role of information security risk management in protecting corporate values and providing assurance. Now this ties the other two together, but what it really says is that if we're going to have a meaningful assurance function with regard to information security, we probably need principles which provide some common understanding of what sort of standards ought to apply to information security. These wouldn't necessarily be auditing standards; in fact I believe auditing standards would follow from some acceptable understanding of what assurance standards might be.

Sometimes internal auditing organizations can be buried in organizations, and perhaps not have the kind of stature that we feel is necessary to be the change agent and the agent for good governance that we think it should be. This partnership was an outstanding opportunity for

auditing to take a preeminent role in solving or at least in addressing what ought to be a national issue. So we were very delighted to be involved in this opening of channels of communication between The IIA and industry as well as governmental leaders. This was a real opportunity for us. We were able to respond effectively and efficiently to rapidly evolving business, government and economic conditions. We're a lot farther along than we were a year ago simply because of the ability to communicate with leaders in government, in the technology industry, and with our own constituent organizations.

Let me tell you about a few of the benefits that have come out of this, and these are available to any or all of you. We made some copies of the reports for the participants here today. The first project had to do with the board-level guidance report. The title of the report is, "Information Security Management and Assurance—A Call to Action for Corporate Directors." This was a book put together specifically for corporate directors. It won't help a technologist very much. It explains the risk associated with information security in a way that corporate directors will understand. They need to understand that there ought to be some risk management processes and procedures going on. They should be able to ask questions of not only their managers but their internal and external auditors about what sorts of things ought to be happening out there to control or to address the risk associated with this.

We also held six events last year and they were high visibility affairs for us. I know Graham Joscelyne and many of the others in the audience attended the Washington, D.C. event. We started with a conference in the Old Executive Office Building, part of the White House complex, and then had events in five cities throughout the U.S., in some cases hosted by major companies like Home Depot, ORACLE, J.C. Penney and others.

At these events it was the board-level guidance report that was made available. There were in fact 15,000 copies of this distributed. One of our partners was the National Association of Corporate Directors which within the United States is an association of the people who sit on boards of directors. They were a partner with us. Every member of their organization was given a copy of the report.

Each person that attended any one of the six events got a packet and on the right side of the folder there was this document, the call to action document, and then there were two-page handouts of each of the tools that are available. Some of you will know that British Standard 7799 is probably one of the best standards in the world today, although there are a number of competitors and I'm probably in trouble for saying that. What we did was provide descriptions of each tool that deals with the question of information security. It was a truncated, short version of it, but it was an attempt to let those directors know that there are in fact principles and standards that try to address the issue of how much information security is enough. What we tried also to do was to create a business case. What we were trying to tell our corporate, private sector members is that this isn't altruism. This is something that is absolutely essential if your organization and your company is to continue in business without a major vulnerability that could be exploited at any point in time. So we tried to make this something that would be attractive to the private sector business community.

Why? Again, it's because of the increased dependence, the demonstrated vulnerabilities and, this is also significant, what is called accelerated technological improvisation. Everybody is

pushing to be on the Web, to have electronic commerce. To do this, as Michael Dufault mentioned to you before, the objective should not be to be the first and the fastest, but rather to be the best. But I fear that often the competitive nature in companies says that if you're not out there on the Web, if you're not doing e-commerce, you're behind. You're not offering your customers and your constituents all that you might offer them and, in the view of some of the folks I've heard address this subject in the last year, it is largely an effort that's built upon improvisation. In fact, some people say it is growing like topsy, you know, just wild growth of things without strong architectures and controls. I'll give you a quote in a few minutes which I think summarizes that.

The message? First, risk management oversight is the business of boards and audit committees. Few of you would disagree with that. Information security is a growing risk in every organization. And while you might not disagree with that, if you look at the agendas of many of the audit committees of the private sector organizations and publicly held organizations in the United States, you'll see there is little attention given to this subject even though there is vast and growing dependence on information security.

Next, boards must provide sufficient oversight for information security. But that begs the question, doesn't it? I mean, that's a nice sentence, but it does not tell a board member how to effect that kind of oversight. It is our opinion that this is where the financial management community, internal auditing, external auditors need to step up to the plate. I don't know how common this is around the world but I know it is true in Western Europe and it is true in the United States and Canada and much of the Pacific, and that is that boards are being held increasingly accountable, and I mean accountable in terms of litigation for the protection of the assets in that organization. One of the important points that came out of these conferences was that once this was surfaced the director would then say, "Well, I have insurance. I have director and officer insurance." How often do you hear that? In other words, we pass that risk on to an insurance company. We also had some representatives from the insurance companies standing up and telling the audience that no, that wasn't necessarily true, that there were gaps in the coverage and they probably would require some additional coverage if that's what they desired.

So the point that I'm making is that whether we're in governments and public sector organizations or whether we're in the private sector, whether it is a taxpayer or a shareholder, those people are to an increasing degree holding directors or governmental officials responsible for protection of the cyber assets. And then boards must ask the right questions and be smart enough and understand things well enough to know what kind of answers they're getting. This is what we hoped our documents would do.

The right questions. And those questions are hard because how does a board member or senior official get somebody who is knowledgeable? How do you get that chief security officer from Microsoft to come into the board and say, "Okay, what is the vulnerability?" Or probably more likely, since Microsoft just had some intrusion into their system that was reported in the public press, the question might be, "What happened?" "How did they get in?" "How long did it take you to detect it?" "What do you know about it?" "What's going to happen so it doesn't happen again?" Those kinds of questions are critical in the governance arena.

Richard Clarke is a strong promoter of what's happened in our infrastructure assurance series, and this is worth reading together with you because I think it summarizes a lot of what we've been about. It says, "We're seeking adoption of a code of best practice for computer security." And if we just stop there we can begin to see that he's saying we need to adopt it. We don't have in the United States an acceptable code of best practice for computer security whose implementation would be required by insurance and auditing firms. In other words, how can insurance companies know the degree of risk? How can we create that actuarial computation unless we know the standards against which we're benchmarking? And how can auditors give this broader assurance that we're always talking about without some understanding of the basic principles? We're investing hundreds of millions of dollars into R&D and computer networks, and we're re-examining the requirements for emergency reconstitution. Some people would tell you, and I think Richard Clarke would be one, it's not a question of how, it's a question of when. In other words, there are going to be increasing cyber attacks, and so just as we've dealt with business resumption planning for years, we probably need some reconstitution action and planning as well.

All of these efforts are designed to find the holes and patch quickly those that can be swiftly sealed. They are designed to look for new and improved solutions. They are designed to be capable of rapidly scaling up should more intelligence be found or another threat materializes. The final sentence is the truth. "They are financially costly." And we haven't begun, in the opinion of many folks who spoke at these conferences, to really address the financial cost of tightening these systems and protecting the information that is kept upon them. So Richard Clarke was present at all six events and did a magnificent job.

Let's talk about the conferences. There were six conferences and, as I mentioned, we started on April 18th of last year. In May we migrated to the great city of Dallas at the corporate offices of the J.C. Penney Company. From Dallas we moved to Atlanta and the offices of Home Depot. We then migrated to Chicago and had an event there. From Chicago we went to San Francisco and the offices of ORACLE, and we ended in New York in the corporate office of New York Life. So we really were able to be inserted into mainstream U.S. corporations that have, in our opinion, a vested interest. At each event the call to action book was given out to each of the participants.

At the White House conference we were happy to have had outstanding support. We had the White House Chief of Staff, the Secretaries of Treasury and Commerce as well as the National Security Advisor on Information Security present. Now, why do I mention that to you? It is because I know that many of you are in countries where you represent the highest-level audit organizations in that particular country. When we get national leaders that will step into an event and speak on something like information security, that creates a lot more credibility for that program and brings a lot of moral authority to bear on the problem. We also had many chairs of audit committee boards present. There were chief auditing executives and we were very happy to have them, obviously.

This is a subject that I don't think we can deal with in-house. Internal auditing may have been the organization that put it together, but we were very much helped and probably led in some ways by the National Association of Corporate Directors. They were partners in this from the beginning. The AICPA, the American Institute of Certified Public Accountants, was in this from the beginning. The Information Security Audit and Control Association was a big help as well as the

Information Security Association. Finally, IFAC, the International Federation of Accountants that I know you're all familiar with was present as well. Their national director joined us and we had one other staff member who attended. That was a very significant deal for us because we really wanted this to be a global issue even though we were starting in the United States.

Finally we had securities and insurance leaders. A year ago, if I was speaking to you, I would not have known why we would want to have securities and insurance leaders. But all of a sudden I began to realize that the valuation of those publicly held companies was a key ingredient in getting the attention of corporate directors in terms of what they would support and what kind of resources they would try to bring to the issue of information security.

The government's view was pretty much that government can't do this. We've gone through considerable changes over a period of time in the U.S. economy and I know many of your economies are the same. These changes have migrated control of assets from government to private organizations. So the private organization is more likely today than it was a few years ago to have control over key assets. The point is that government can't solve this problem. Geography is no barrier. Things can move electronically across borders with impunity and so the private sector must take the lead. It is that individual executive in charge of such and such a company, or that individual board member, who must take the lead. The board vantage point was presented by Tom Horton. Ambassador Frank Wizner spoke for the American International Group, an insurance company that writes a great quantity of director and officer policies. Then we had an individual named Marshall Acuff who put the paper out on the impact of bad information security on the security valuations.

One of the most important best practice examples that we surfaced during this whole series of conferences was collaboration—where a chief auditing executive, a chief information security officer and a board member, usually the chairman of the audit committee, were put together and contemplated what they could bring to the table to make sure that the assets and the revenues of the business were protected from outside agencies. The issue was brought home for me in the Chicago conference by the Federal Reserve. The Federal Reserve Bank of Chicago brought to one of the panel presentations their chief auditing executive. He brought the chief information officer with him and they both brought the commissioner of the Federal Reserve Bank of Chicago and they began to address how they in unison could deal with this issue. Of course, the director, once he or she becomes convinced that this is an issue, can bring a great deal of pressure to make sure that there are sufficient resources and understanding and protection for the large volumes of electronic transactions that are processed through a U.S. Federal Reserve Bank. You can understand that this is an issue of no little concern.

There are some others. The same thing essentially happened at Bell South. They had essentially the same setup. The Enron Corporation, a major U.S. energy firm in the Texas area, brought still another presentation. So there are some examples out there where it is working well, but you could tell by the attentiveness of the audience that that was a big issue and they were glad to hear it being discussed.

Each event was televised, each event was captured on video, and we do have that information. We're beginning to extract the pertinent best information from these proceedings so we can codify and present best practice.

What are some of the lessons learned in this? I learned one thing. I'm getting older and I can't quite keep the pace that I once could. But one of the things that we learned out of all this is that it is extraordinarily difficult to get directors to come to an event of six or more hours. So we began to make shorter and shorter sessions because their time is valuable and even when their national association of corporate directors would say, "This is important, you ought to go," they are not likely to show up. And if they don't like what they see in the first few minutes they're not likely to stay. So it is quite a challenge to get these folks in a room and keep them there.

One of the best anecdotes that I can tell you is what happened in Chicago, where an IIA member brought his audit committee chair. And the audit committee chair (this was also the event where the Federal Reserve Bank presented their mind-boggling presentation) got very excited. The event was over at 3:30 and at 6:00 we were still trying to stack the chairs. The chair of the audit committee was still there and she had the technology officer for her company and the chief auditor there and also a couple other folks standing around her, and she is redrawing the organization chart. I mean, she's really engaged in the subject. It was very heartening for internal auditors. You know how hard it is sometimes to get management's attention and get them really engaged in a subject, but when you get the director involved, everybody is involved. The Williams Companies took some of the materials that we put together out of the event and actually took videos to a number of their subordinate companies to try to raise the level of awareness in their organizations.

So it was a constructive and ongoing alliance. It's not over yet. The reason it's not over is that we have a follow-on event scheduled for May 15th in Washington, D.C. at the U.S. Chamber of Commerce organization. Again, we're still engaged primarily in the private sector. We are beginning now—and this is perhaps important for you—to have these events happen outside the United States. I'm sure this year we'll have one such event in Canada. There will be one such event in Europe. I think our European affiliates are interested as well as our Australian affiliates.

I know many of you out there are either members or involved with The IIA. At the conclusion of the events last year, we put together a presentation much like the one I'm giving you only a little elongated. We put this together with a videotape, and for at least the Spanish audience I think it was translated. We put together a package with PowerPoint slides, speaker notes and a video. All of our IIA affiliates around the world have a copy of that presentation. It was sent out earlier this year. So we're really hoping to carry that message globally. We would like to have more of this simply because we think we're in the business of risk management. You saw the definition earlier.

Also our relationship continues. There are two additional documents that I provided to the individuals that are attending here today which are follow-on documents which deal with the issue of awareness, and also deal with some of the lessons learned in a manner that directors can understand.

We have developed a pretty good reputation and now The IIA is one of the four founding organizations of a partnership corporation for information security, which is a separate corporation,

and Bill Bishop, my boss, who is the President of The IIA, is one of the directors of that organization. So we plan to keep going in this arena.

Where do we go from here? I've mentioned the major event. I'm also likely to get ahead of myself. We are continuing to prepare and present board and educational materials. We also need to get additional training for our auditors. We have what we call our basic mission elements of The IIA—we want to be the authority on internal auditing, we want to be the principal spokesman, we want to be the chief educator. But we know that this challenge of information security training is a tough one, and we also know we need to offer things for our constituents to build their expertise so they can provide well-founded assurance to corporate directors and executives.

Integration with risk management? There is no question that risk management is our business, and that's an increasing demand that's coming out of the demand of the public and the taxpayer for improved governance around the globe.

I've already mentioned to you the videos. They went not only to our U.S. chapters, but they did go to our international affiliates, which now number something like 120 around the globe. And finally, company training is something which we plan to carry to the individual out in the organization.

That concludes what I hope was an informative session for you. I've got to say that critical infrastructure was something I couldn't conceive of a year and a half ago. It is something that has really raised the consciousness level of at least the U.S. Government and amongst our company constituents to the fact that internal auditing is a major player in governance, risk management and control processes. It is not only raising that awareness, but it is also raising that demand and that requirement for our individual auditors to satisfy the assurance needs of organizational leaders.

There are two ways of doing the internal audit work, and I did it for a long time in the Air Force. As you might understand the Air Force was not always eager to get my products. Most of the time I was actually trying to tell them how good it was, but in this way we're really working the demand side. Somebody else is telling the directors and the executives how much they need this auditing service. So I view it as a great opportunity to work the demand side of the curve. With that I'll conclude.

New IFAC International Public Sector Accounting Standards (IPSAS)

Ron Points, Word Bank

It is a pleasure to be back before this group again. Last year I made a presentation on the same subject and this year I will be doing an update. In the past I have given presentations on a variety of topics, so I've been a jack-of-all-trades over the years. I just completed my term on the board of directors of this organization as of yesterday's board meeting, so I'm an ex-board member here, a "has-been" to this organization. It's great to get down to Miami and participate in this conference. It's great to be able to talk with all of you from around the world and have the opportunity to discuss the various issues faced by many of the countries.

For those of you not familiar with the International Federation of Accountants, or IFAC, I'll give you a little background. I'll explain why we entered into this public sector accounting standards project and then how we have gone about it since 1996.

If you're not familiar with IFAC, its membership includes 153 member bodies from 113 countries. By member body, we mean your professional organization within your country. In some countries there are two recognized professional bodies, and that's why there are more professional bodies than countries.

In the primary technical committees of IFAC are the Audit Practices (the committee that issues your international auditing standards), the Public Sector (issues the international accounting standards), the IT Committee, the Financial Management Accounting Committee and then the Ethics Committee. The Ethics Committee just issued an exposure draft on a new ethics document. They are now processing the comments received.

We have 11 members on our Public Sector Committee, and one vacancy. Ian Mackintosh from Australia is our chair. We have representation from Canada, France, Germany, Mexico, The Netherlands, New Zealand, Pakistan, Thailand and the U.K. I'm the U.S. representative to IFAC. Right now we're waiting to appoint one other person to round out the 12. The observers at our meeting do not have a vote, but they can participate in our discussions. They are the ADB, the International Accounting Standards Committee, the IMF, INTOSAI, OECD, the World Bank and UNDP. That list will expand as other donor organizations get involved with our project.

The Public Sector Committee was established in 1986. A former member of this organization, former Auditor General of Canada, Ken Dye, was very active in creating this Public Sector Committee at IFAC and was very active in this organization at the same time. The Committee since then has really taken on a view of serving the public sector, whether accounting, audit or educational issues. At our last meeting, our spring meeting, we changed the mission of the

committee. Since we entered into the public sector accounting standards, that is really consuming all of our energy and time as a committee. Therefore, we have re-stated our mission. We will not be the spokesperson for the public sector auditing input to the international auditing standards, and we will not get involved with some of these other committees of IFAC. So that will leave it up to IFAC to address the public sector point of view in other ways.

We have been busy over this past year. We issued a couple different studies that may be of interest to you. One was on cost accounting in government. If you have any interest in cost accounting, I would recommend that you get a copy of that document. You can get all these documents off the IFAC Web site, which is noted in my presentation handout. We also issued another document that talks about government accounting practices around the world. It was a document that we issued within the past year that discusses how different countries account for different transactions. It wasn't that we were endorsing any of those practices; it was just a study that could be used as a reference.

At our meeting in April, which will be held in Chile, we hope to approve another study that will be very important, and that's on corporate governance in the public sector. If any of you are interested in the whole anti-corruption/good governance issues, this will be a document which I think will be helpful. We hope to issue it by summer in the final form.

Why did we come along and start issuing public sector accounting standards? There was a lot of discussion. We had had the East Asia crisis and the crisis in Latin America. And so around the globe we had governments getting in trouble. When organizations tried to provide assistance, there was really a void there—a lack of quality information from these governments. So it was decided that we really needed to establish a global set of accounting standards for governments. That was really why we started—to issue accounting standards that would increase the quality of financial reporting, start prescribing financial statements for governments to follow, try to address the transparency issue as well as the completeness issue where governments would put out pieces of financial information but you never really saw the complete picture.

In many governments, trying to get timely information is quite a challenge. As I talked to people, I said that accountants were not in the business of ancient history. I would like to see us get into modern history if possible. Once you start dealing with financial statements that are more than three months old, you're dealing with ancient history in today's world. You heard the speakers this morning speak about how we're moving into this e-commerce; it is becoming more critical to have timely reporting.

The other issue was that even if the financial information was published, frequently the information didn't reconcile back to the budget numbers. People were lost as to which numbers were correct. Finally, there was such a divergence in reporting practices that when we took a survey to try to find out who was on what basis of accounting, for example, people would come back and say, "I follow the modified accrual basis." And when you start asking more detailed questions, you find out that there was a long list of definitions for modified accrual. An example is the U.S. and Canada, two neighboring countries with totally different definitions of modified accrual. And so we got into those issues about the divergence of reporting practices.

As we take on more of this global economy and this whole international flavor, it is tough for governments to go off and hide and stay isolated any more. You are going to be part of this international economy in one way or the other, whether you are dealing with the donor banks like ADB, IDB, World Bank, USAID, AUSAID or the IMF, or you are dealing with corporate organizations. You will get into this globalization. You will not be able to stay isolated.

Our committee also wanted to set some minimum benchmarks that countries can review and work towards. As we issue our standards, we're not expecting everyone to convert over to the International Public Sector Accounting Standards overnight. We realize that's a long-term project.

The final thing was that we also wanted to provide a framework against which auditors could work in their audits. As I mentioned, we just issued our governance piece where we state that a good set of accounting standards goes a long way toward addressing transparency and strengthening the governance within a governmental organization.

As we go forward, some of the benefits we see in talking to some of the rating agencies around the world is that if governments can start producing a good set of financial reports based on international benchmarks, the cost of borrowing will go down as they hit the marketplace. International donors will have better information to deal with these governments. International standards will serve as a basis for the domestic standards as you go forward, whether you are dealing at the national or sub-national level. To me, another important piece is bringing mobility into the profession. If people become familiar with the International Public Sector Accounting Standards, they will be able to move between governments and even within your own country if everyone has adopted the international standards.

Why has the IFAC Public Sector Committee taken on the role of setting the standards? Basically, it is because of the experience and expertise on our committee from those countries that I named to you. We have some very outstanding government accountants on our committee and people with a vast amount of knowledge in the government arena.

We are looking for support for our standards. That is one reason I'm out on the campaign trail. Not only are we going to various donors asking for contributions as we enter into our next phase, we're also looking for technical input. By that I mean when we put out exposure drafts we're looking for countries to write back to us with their ideas, their opinions. What will work? What are we missing? Is it a good idea? So we're really encouraging people to take our exposure drafts which can be obtained from our Web site. They're free. Please provide comments back to us. We really need the input from as many countries as possible. We're looking through that mechanism. If we get inputs from governments, we're hoping that the governments will then lend support to our standards.

What is the philosophy of our standards? Basically we're promoting the adoption of accrual basis. That's the long range. We are also developing transitional guidance on moving from cash to accrual, and we have adopted a due process that an exposure draft has at least four months out there as an exposure draft. On some of the more highly technical ones we have given six months due process for the exposure.

In Stage 1, which we'll be completing at the end of this year, basically what we were required to do was set a core set of 22 accounting standards based on the international accounting standards which were set on August 31, 1997. We're up to about 19 of them either passed or out in exposure draft. As we move through this process we will identify government-unique requirements. In Stage 2 we will then address those unique government accounting standards.

What we have really stated is that our accounting standards are sector neutral. A lot of people come back and say, "Governments need their own standards." And we have taken the position, by using the international accounting standards as our basis, that the government is no different than other sectors—energy sector, banking sector, insurance sector, whatever. You do have unique transactions that we will address, but in general the overall standards are sector neutral.

Finally, we are addressing the translation issue. We're trying to get our standards translated into as many languages as possible. I am pleased to report that the Inter-American Development Bank has a project that Lynnette Asselin will speak about tomorrow. They are in the process of taking all of our standards and translating them into Spanish. When we meet in Chile at the end of April, we will also be holding a seminar. Hopefully they will be inviting other countries to come to this seminar as we work through these standards.

A little over a year ago, during our exposure draft period, we asked the recipients of our exposure drafts: should we maintain the four bases of accounting that we started out with—cash, modified cash, modified accrual and accrual? Should we maintain the four bases of accounting or should we only have two—cash and accrual? Overwhelmingly it came back saying we should only have two—cash and accrual. Therefore, we went back and changed our approach to say we will eliminate modified cash, modified accrual. We will not set standards for those two bases, because as I said, modified cash was not a different basis of accounting, it was just a modification of cash—a timing difference. Modified accrual was a little bit different but, as I mentioned before, which definition would you ever adopt for modified accrual? So basically our standards will have cash and accrual. And we'll have one standard on cash accounting that will be our Statement 9.

When we were out there looking at this, we asked people, "What basis are you on?" Most said, "Cash." But when you ask some additional questions you find that when people say they are on cash basis accounting, it takes on a much broader spectrum. So what we're planning to do is issue a standard so that in the future if you say you're on the cash basis of accounting, we have a standard that can be used as the benchmark.

In the second phase of our project we will look at those unique characteristics of government—addressing those additional standards. We will look at interpretations and maintenance of our existing standards and keep working on translation. To date we have issued the governmental financial reporting. We have finalized Statements 1 through 8. We have Exposure Drafts 9 through 19 out there, and we have an invitation to comment, the ITC. That's not an exposure draft or a standard at this time, it is a paper we have issued and ask you to please respond back to us. It's called, "Impairment of Assets." Because we have an exposure draft out there on fixed assets—property, plant and equipment—we need to address impairment of assets. So we

have invited comments back so we can then come up with an exposure draft and eventually a final document on that.

These are the standards that have been released to date. Statement 1 is Presentation of Financial Statements, and Statement 2 is Cash Flow Statements. The one that you really have to focus on is Statement 6, Consolidated Financial Statements and Accounting for Controlled Entities. That's going to give governments two problems—the first being how to define the reporting entity. Stop and think of your own government. If I tell you to pull off a financial statement for your government, how do you know you have all the pieces in there? And if you come back and tell me, "Well, it's the budget," I will tell you, "No, you're still going to miss financial pieces of your government if you only deal with the budget piece."

The second piece is consolidation. Governments are going to have to be able to put mechanisms into their systems to identify the intergovernmental transactions so they can eliminate them for consolidating purposes. So Statement 6 will be a challenge for governments, and we have given additional transition time for adoption of that standard.

The big issue on Exposure Draft 11 on Inventory was: Should we allow governments to use the LIFO method of inventory valuation? Based on comment letters coming back, the overwhelming response has been to eliminate the LIFO basis. So, we'll see in our meeting in April. In our discussions, I would say there is a good chance that LIFO may bite the dust as a valuation method.

In Exposure Draft 14, Property, Plant and Equipment, the big issue was: What do I do with military assets and heritage assets? The gentleman on our Committee from France says, "How do I value all that art work in France? How do I put a value on that?" But these are some of the issues that you get into when dealing with property, plant and equipment. How do you address it on a national level? And between the inventories and property, plant and equipment was the issue of strategic stockpiles. Do they belong in inventories? Do they belong in property, plant and equipment or do they belong off the balance sheet? So these are some of the issues that we have been addressing.

Exposure Drafts 15 through 19 are out for comment now. Segment Reporting was a real challenge because, as we all know in this room, our governments are not all the same. Therefore, when we talk about a segment that may work for one government, well, it won't work for another government. So it really was a challenge for us to come up with criteria for Segment Reporting. It was the same for another exposure draft—Related Parties. What is a related party in government? We broke it into two pieces. Related parties as it pertains to the individual—the minister of finance and the people with which that person deals. Does the wife of the minister of finance operate a company that has contracts with the government? Then you look, from a vendor's standpoint, if I have a state-owned enterprise, is it at arm's length when dealing with the rest of the government or do they have a monopoly? Are the prices charged fair? So Related Party issues was also a real challenge.

We hope to approve Exposure Draft 9 at the end of April. We are going to field test Exposure Draft 9 on the cash basis of accounting before we issue it as a final standard. We will

ask governments to volunteer to field test that standard and give us feedback as to what's working and what's not working before we move out and finalize that standard. If any governments out here would like to participate in that field test, which will probably start sometime this summer, please let me know. Because we're looking for volunteers, you would not have to do a complete adoption of the cash basis of accounting, but you can at least get through the process to an extent that you would understand what the issues are and be able to give us the feedback. That will be a tremendous help.

We have redefined the scope of Provisions and Contingencies. We have removed all the pensions and social cost issues like social security. The big question there is: How do we put in social programs? Do we wait until the law is passed? How do we interpret the law? What do you set up as a liability on the part of the government for these promises that are made? So we're getting into a lot of issues there as to what we set up as a provision and contingency on both the asset side as well as the liability side.

The address where you can find all this information is www.ifac.org. I've just gone through some of the main issues with which we have had to deal in these standards.

Events After the Reporting Date was a challenge for us. Does the going concern assumption apply to government? I could probably walk around this audience and get a variety of answers. Depending on how you want to define that, you can get different answers. Also, there is a requirement that you have to sign off on the financial statements. Well, what is that date and by whom? In governments around the world that takes many different forms. And for us to try to put something in the standards that would apply around the world was very difficult because of the different procedures that governments go through to finalize their financial statements and have them signed off.

Some of the issues that we will start next year include non-exchange revenue, which is the biggest piece of revenue for governments out there, the social policy and obligations which I mentioned, social insurance. Government budgeting—when we start on that project we will be pleading with you out there to please participate with us and give us feedback on the budgeting issues. We will also be addressing the non-financial performance and indicators. We will also be working with the IMF on their GFS classifications, and looking at our guidelines on the government business entities—the GBEs.

Some of the latest international standards that we will have to deal with is one on agriculture, because in a lot of these developing countries agriculture is a major segment, and intangible assets and financial instruments. Financial instruments don't apply to a lot of countries but more and more countries have gotten creative.

This was a quick overview of where we are. All I can say is please respond back. Thank you.

Internet Based Acquisition System of the Argentina National Government's National Contracting Office

Juan Oscar Luna, Director

Good afternoon to you all. Before I start I want to thank the International Consortium and Florida International University for the chance to show you a little of the advances we have made with regard to the computerization of the procurement systems in Argentina, through the National Contracting Office that is the ruling body for the entire system of contracting.

This office was created in 1994 as the ruling body, responsible for working on everything related to standard setting and contracting policies, as well as designing, implementing and managing the information management systems throughout the State system at the national level. We do this within a framework of centralization of standards and decentralization of operations. That is how we started working, first to bring the standards up to date since they were really dated. And now 2000 has arrived with the signing of Decree 436, in which a series of parameters has been set. In it there are important points that are really tied into issues of efficient and effective management, and which point fundamentally toward transparency. This transparency occurs through the dissemination of information and all that that implies, through the Internet that is right now a massive tool that really helps us achieve this objective.

The State at the national level—I refer to all the central government and autonomous bodies—purchases approximately \$3 billion per year. Of this amount about 60 percent is for non-personal services and the rest goes for supplies and equipment. In the National Office work began on developing the systems, first of all with the goal of putting the entire system in some order. A System of Identification of Goods and Services was developed, with the objective of codifying those goods and services purchased by the State at the national level. There were several subgoals: first, to get the greatest possible specificity in the budgetary classifications, in order to know exactly or approximately just what these bodies were purchasing. Later on we added a second subgoal: once the goods were classified, to use them to set up reference prices for the goods being purchased, and then to disseminate that information so that the different bodies could find out on the Internet what the others were spending to buy those products.

Of course, that same code could be used in the whole area of asset management as well as for control of goods held in storage. Later on also the entire system related to transparency was developed, which I mentioned before, in the wake of Decree 436, covering the announcing of all selection procedures for procurement by the national government, starting at the beginning with the request for bids, all the way to awarding the winning bid. It's an information system that's very complex and very specific, and keeps our office really hard at work, but it is showing some very positive results as I'll show you later, thanks to the Internet.

Work was also done on developing a system of vendors that is also published on the Internet, and I'll cover this system later. Fortunately there are also the reference prices that we obtained from classifying the goods, using the catalog. We also developed other smaller management systems for inclusion within the integrated financial management systems that are being developed separately. Those systems are now working in some bodies and we expect to include them as modules to facilitate those bodies' management functions and speed up their procurement process, especially in the case of common or standard goods, so that we can get to a speedier and simpler procurement process.

In all these matters, the Department of the Treasury adopted the idea of achieving self-development. This means that all functional analysis, design and development were carried out with help from personnel of the National Contracting Office. Modular development was used in order to achieve partial implementation in steps and reach some quick outcomes. You know how it is in government, how sometimes results take a long time to accomplish. So our objective was to try to show that quick outcomes could be achieved while we kept moving forward in steps. We worked with distributed databases in every governmental body, as well as a concentrated central database in the National Office for dissemination. We worked on developing the Web page where all that information could be displayed. And we set up a support desk to provide all the help and advising that these bodies needed.

You all know that system development and implementation is not just a matter of technical development and implementation. We also need during the process a very laborious effort at building awareness, deepening understanding of the new procurement process, and training personnel in this. Often these things are not considered when time frames and objectives are established, but the time they take is really important if we want it to function with full user awareness, with full awareness from the purchasing units—if we want to see a smooth flow in its operation.

As we view the general system outlines, and how information is disseminated through the Internet, we see three principal channels or flows. First is the recording process in the procurement units—the way each one records information. Second is the way this information is sent to the National Contracting Office. Finally we have the consistency of this information, its verification and publication on the Internet. The procurement units have software already installed thanks to the National Office, which has helped them understand it and work toward a standardized reporting process. And once this information is published on the Internet, it is made available to all citizens, all vendors, all NGO's, all government bodies, etc. It's entirely in the public domain. That is the chief objective of Decree 436: to achieve transparency in the procurement process.

I just said that the first channel is the local units' recording process. This is done in two ways. Units that have integrated management systems are using the corresponding modules, and units that don't have them will use manual data entry. All of this is done with the software our Office developed, so that those systems concentrate the information and finally allow it to be sent by dedicated channels to the National Office. Once the data are safely stored using digital signature, the channel in question passes through e-mail or the Web until the information reaches the National Office in standard format. The Office in turn receives the information, verifies it and authorizes its

publication and dissemination on the Web. Here are the addresses you can use to access the information: *www.onc.mecon.gov.ar* and *transparencia.mecon.gov.ar*.

We will now see in more detail each one of the systems I have described, how they function, how all this information is received and how it is implemented. The Identification System for Goods and Services, which we call SIBYS for short, has a system called Customer Catalog, where the individual unit can check to see if the good it wants to buy is cataloged or not, and if it is not, there's a system allowing it to send a request via the Internet for classification. A server catalog at the National Office receives the request. At the Office we verify that the item is indeed not cataloged, and later it is cataloged and the requesting unit gets that information, and by publishing it on the Web the catalog is updated.

This catalog is already published on the Internet and is in the public domain, accessible by the units as well as the vendors. Our intention is to have a public classification that the vendors can access, as well as to achieve a parallel classification among practically all the first-level vendors, that is, between the classifications used by the manufacturer and those used by the purchasing entity, the State. Our intention is to achieve such familiarity with the classification system that the vendors can work with the State's code.

The catalog code itself is composed of 12 digits. The first 3 digits deal with the first object, the budgetary classification, and it corresponds exactly to the budgetary classifier issued by the National Budget Office. The next 5 digits deal with the generic class, the business class of the item that is being procured. Finally, the last 4 digits have to do with the item itself, with its principal properties or determinants.

The codification is correlative; that is, it has in part one an intelligent classification. Looking at the first 3 digits in the catalog, we can tell exactly what it refers to. We also know what it is we are buying by means of the classifier; we know the generic class. We also can identify the item itself in question. The generic classification is semi-intelligent. And after that the last part, which has a totally random nature, is a correlative classification, insofar as each item gets classified. You can see the page as it appears on the Internet, with each item, its main entry, its specific entry, all the codification shown in part one; then below are the specific properties that will identify exactly for us this good we are cataloging.

Here are some statistical data. The system was implemented in June 1997 as a pilot, working with certain units to achieve a pattern we could repeat throughout all the units. Through today we have cataloged about 5,000 classes and about 56,000 items. In the National Office, just to give you an idea, we have a system that tells us exactly the number of items that each cataloger completes per day, the items awaiting cataloging and of course those we enter daily. It's computerized and we have it at the end of each day.

The transparency comes in when we look at the entire contracting process. The procurement operating units do the recording from the very beginning of the process, then they send the data to the National Office by either e-mail or the Web, and finally the information is checked for consistency, verified and placed on the Internet from the National Office.

According to the Decree, all steps of the contracting processes must be published on the Web page, from the request for bids to the bid award. The Decree created a new prior step called "responses to bid proposals." In other words, the potential bidders now have a chance to respond at the proposal stage even before the request is made public, using a document attached to the terms and conditions sheet. The Decree also allows publishing of a comparison of individual bids at the time the bids are unsealed, and at the time the award is made.

We are in the process of finishing to set up the format for comparison of bids and we expect to have it ready in two months' time. This will allow the potential bidders to visualize all the information on the Internet. The only things left are the security devices we need to allow the bidders to download the forms from the Internet. Right now they can look up everything but if anything looks interesting they still have to contact our Office, the Operational Unit, to ask for the forms, which since the Decree's appearance are provided free of charge. We got rid of that fee to encourage a greater participation of bidders and to make the management of the process even more transparent.

The Internet page includes the request for bids, and is accompanied by another page with further background details. The example you see is a simple one. Next you see the award announcement. So you see the entire process on the Internet from the request for bids to the announcement of the winning bid. This information was put up for the first time last October and by February we had published about 1,200 separate bid requests from 230 government bodies. And we are building awareness among these units of the need for follow-up on this, to go on publishing all this information, to make this system into an ongoing process, a routine, so that in the future there will be no need to keep pestering them to publish what they have.

We have another system for vendors, which we call *SiPro*, which is also on the Internet, a place for bidders to add their own information. This system is not set up only for vendors who previously registered. It allows others to be included at the moment they submit their bids, at the time they download the bidding form, at which point they can add their own information right from their company offices using a special *Sipro/Provedor* diskette. This information is presented along with their bids and with supporting documentation they must also submit. Other software called *Sipro/Cliente* allows this information to be recorded in the relevant governmental unit and then sent to the National Office for inclusion in *SiPro*. Naturally, when the winning bid is announced the vendor has to be in the *SiPro* system.

This format is also being used to get a larger universe of bidders involved, to simplify their registration, and not require potential bidders to register prior to posting their bids. Of course this is the first step in creating a comprehensive vendor information system. Right now it includes the incorporation data and the income tax data. But there is no information about the vendor's quality processes, its service ethos, its product delivery and other data that could be useful and essential for developing a private sector of vendors. We have only taken the first step, and we will follow up by requiring vendors to adhere to quality standards.

The system will build in an obligation on the part of governmental bodies to send all their certified reports of non-compliance to the National Office. Such non-compliance then forms part of the vendor's file. The system will include suspensions and disqualifications, which kick in

when vendors have committed a certain number of acts of non-compliance. The governmental bodies can check the system before they make any awards, to see the vendors' individual performance in government contracting. This also makes it unnecessary for the vendor to present all that information whenever it takes part in a bid with one unit or another; all the information is already in the system. It lightens the process for the vendor and simplifies work for the government when it looks for the vendor's previous record.

Here is the page in *Sipro/Provedor* in which the vendor inputs its data, and later on when that vendor has been removed from *SiPro*. You can see the statistical data on an implementation we did in October 2000. By February we had 750 vendors, and now in April we have more than 2,000, and 45 governmental bodies are accessing this database. Of course we have a long way to go. A lot of awareness building and training has yet to take place, and there are 300 procurement units in government, so that we are offering training courses on an ongoing basis, advising these unit personnel on an ongoing basis, measuring their progress. But we see important advances in the kind of information that is being published. Of course the process needs some time to settle down.

We have not gotten very far in questions of electronic trading, and that's because the standards don't yet allow it. We are working on a draft of a bill that will be sent to Congress this month, and that mentions electronic trading. What we have done so far is a step prior to beginning that, by making information available on the Internet, but the culmination of this entire process will take us to electronic bidding; that is the final goal. We hope to have standards soon that allow us to move forward. You surely know that developments in the information area happen more quickly than the approval of new standards by a legislature. Those have to be discussed completely in the political sphere until their time comes, as it were, and you can't get rid of that reality.

So now we have all the information in a format that is easy-to-use both for the governmental units and for the ordinary citizen. In fact, we have had some responses from the media, commentaries about the prices the State is paying, and whether something it bought was very expensive and something else very cheap. We're not too concerned about analyzing whether a purchase was expensive or cheap, but just getting that information into the hands of the citizen. We're concerned about the process of sending all purchase orders to the National Office, sending them in a standard format to the Internet and reporting all those reference prices that we can find there.

We have everything separated by subject headings. If we choose any subject heading and go to the particular item itself—for example, a buttonhook—we can see the price paid, the unit of measure, the amount purchased, the geographical zone where it was purchased, the procedure used for the purchase, the date and the means of payment. If we go to the next page on the Internet we will see which unit made each of these purchases and who was the vendor, including basic information about the vendor. You can see that the information is very useful because it allows the governmental unit purchasing the goods to have the prior purchase information available.

As a final step we get to the computerized purchase, a method that we use for all those goods that are ordered by everyone. It is created along with the request for bids and put on a magnetic tape dedicated to that subject heading only. These could be electrical appliances or office supplies.

The system allows the data entry. All that the vendor has to do is fill in the blanks on the tape with the price, payment terms and delivery date. Then at the time the bids are unsealed the vendor presents its bid, and the system automatically generates the sheet with the comparison bids.

This comparison sheet helps with issuing what we call the open purchase order, in which a vendor is awarded an order for those items on which it has the winning bid. The State does not guarantee the vendor that it will purchase the amount of goods shown on the bid. That's because the request for bids was published based on an estimated annual usage, and the purchase order is valid for a full year. The governmental unit may make its request on a periodic basis—every two weeks, every month—using provision requests for those items it will be needing. This is the way we solved a really important problem the government has, which is to plan for purchase of small items. We eliminated the delay in receiving and in purchasing these items, because the vendor delivers at regular intervals whatever amounts the unit needs as shown on the provision request. Now the unit does not get overloaded with unnecessary stock, and when it needs something it doesn't have to wait forever to get it.

The management system that goes along with this is a simple one, but it is a big help towards lightening up the process we have been achieving under the requirements of Decree 436: to bring transparency to the systems and the processes and at the same time lighten the burden. You all know well that transparency and a lighter burden do not always go hand in hand. Transparency always has a cost. We have always had to find a happy medium between a transparent management and an efficient, effective management. Our systems are helping in different ways to achieve that objective.

Here are the addresses that you can access to see the entire process. We are moving forward on electronic trading, on quality standards in procurement, and on a complete integration of all these systems in the integrated financial management systems. That can allow the governmental body to work directly with the contracting module within its own financial management system. That means that we are creating a parallel information track with our completed modules, but we want to see which outcomes are really going to work, which will be easy to use, speedier and finally which will bring a much greater level of transparency to our management.

MARCELLO TORO COMPAÑA (Ecuador): It is true that one of our problems in Latin America has to do with government contracting. Tell me: what happens in Argentina when there is a sole bidder or a sole vendor available?

JUAN OSCAR LUNA (Argentina): In Argentina, when there is just one vendor we look to the provision in the Decree that allows the possibility of a direct purchase. In direct contracting there are 5, 6 or 7 sections that allow a purchase from a specific vendor. One of those would be the case of a sole vendor who is the only alternative. Here it also speaks of brand names in the governmental units, and now in the National Contracting Office.

OSWALDO RODRIGUEZ (Venezuela): You spoke about good faith at work when the contractor provides on the virtual media its bid, its documentation, and the way these documents are verified. In that sense, for example, the financial statements issued by public accountants for

the purpose of financial analysis are not delivered physically. Not only those but all the other information, which then has to be verified. How long does it take to verify them? Then later on if they are shown to be correct they become validated. I didn't hear anything about that process, but only about speeding up the process. It's interesting, but I think that the process of verification needs to be open. I don't know if the possibility exists of invalidating the process later on. I would like to know more about this.

JUAN OSCAR LUNA (Argentina): The governmental body receiving the bids is the one responsible for verifying and checking the information. This includes all the documentation required by the vendor system, including the supporting documentation for anything the vendor enters as vendor information. The responsibility for checking the information goes to that body, and that body receives and stores all that. Now suppose that some time has passed, and another governmental unit wants to make a purchase. It consults the database and finds that some information about that vendor is no longer valid or has expired. So the unit receiving bids at this time is the one that has to ask for updated information.

Now that documentation does not go to the National Office, but each purchasing unit has the responsibility to check the information, just as before when there was no vendor information system. The unit would ask the vendor for supporting documentation, and the vendor would provide it. The problem was that when this vendor bid with other governmental units, it was the vendor that had to present all that supporting documentation all over again. And as for the government, its different bodies had no idea how the vendor was with other bodies.

JOSE L. GUITIERREZ GONZALES (Nicaragua): In a part of the process you just explained, you mentioned digital signature. I have two questions, one with respect to whether digital signature is subject to any legal regulation. The other has to do with the informational controls that exist in the process itself.

JUAN OSCAR LUNA (Argentina): With respect to digital signature, right now Congress is about to pass a law concerning the use of digital signature. With respect to informational controls I'm going to ask Mr. Boccardo, our IT specialist who's responsible for that area, to explain what controls we have.

ROBERTO ALEJANDRO BOCCARDO (Argentina): On the question of controls in our work on digital signature, it has to do with applying the signature at the time of document transmission. And before the present bill was presented to Congress, there were decrees, resolutions and administrative actions that were implemented to give us a framework to regulate the process we are involved in now. I would have to see a particular case to make a more extensive explanation of the way we are implementing this in the system.

CONFERENCE PARTICIPANT: When an award is made, is it based on the lowest price? And suppose that the lowest price does not win, why did it come in second place? Is it a question of quality or some other factor?

JUAN OSCAR LUNA (Argentina): The question is taking us away from the information systems to the purchasing activity as such. Decree 436 declares that the purchase must be made

from the most convenient bid, not from the lowest bid. So the decision rests with the official involved, that is, the evaluating committee. This committee is made up of the purchase officer, the manager of the operating unit making the purchase, and a third person who specializes in the subject matter of the purchase. They make the final decision.

And they don't always choose the lowest bidder. They could choose a higher bidder, of course, if they have a reason to do so. The only case in which we always go to the lowest bidder—and here we try to make this as clear as possible in our catalog—is that of items in common use. We are dealing with a computerized purchase. Many items are involved and we're looking for a quick and smooth process, so we look for the lowest price. Of course, we define exactly what is needed in order to avoid a large number of bids that quote a lower price for goods of lower quality.

We are going into quality standards for many items in the catalog. We are now in a process of integrating our work with that of the Secretary of Industry's office to require that purchases be made under standards of quality. This is our next objective. As you know, at the governmental level it is not always easy to do this, because the first thing outsiders say is that we are steering the purchases. So you have to do it in a progressive, gradual way and keep the process as transparent as possible. Many vendors who have poor quality object to this, and say that there is a pre-selection process. I don't agree with that generally, but we do have limitations of this kind.

The Status of E-Government in Chile

Claudio Orrego, Former Minister of Housing and Urban Development, Chile

Good afternoon. I will try to make my address entertaining so that my audience won't go napping off after your lunch. I want to start by thanking the Consortium and Florida International University for this opportunity to share with you our experience in Chile as it undergoes its public transformation, especially in its transition to e-government.

I'll start with a story and a paradox. The story has to do with the time in which we live, moving rapidly at the speed of Internet. When Jim Wesberry invited me to speak here I was still Minister of Housing and Urban Development. I told him yes. He didn't answer right away, and in the meantime I had become ex-Minister of Housing and Urban Development. Things move so quickly in this world. But anyway, Jim was kind enough to keep his invitation open despite my change in position.

Next is the paradox. It has been my lot, and probably yours as well, to take part in countless international seminars during the last ten years. I had never heard so much talk about the modern state, the electronic state, the transparent and open state. But despite this, despite the paradox, the worst cases of corruption, the lack of modernization, and at times the technological inflexibility have not been addressed in these great forums.

For this reason—and this is the meaning of my talk—I believe that there is not too much doubt about what has to be done. Our goal is clear. We need states that are modern, transparent, that take charge of the technology of formation in a strategic way. The question is how to do this, how to get moving in this time of reforming our economies, and succeed at the same time. My second point is an important element in sustaining the impulse of reform: create awareness that these reforms are inevitable so that, when we realize that these reforms have their human, financial, cultural and political costs, we will be aware that these costs are worth the effort.

For this reason, in my talk about “The Transition to E-Government, Chile's Integrated Strategy,” I want to start with a question that may seem childish and obvious. But when you are a reformer and trying to get things moving inside government, you realize that this is not always understood and often underestimated. That is the reason why we modernize the State. What are the reasons that should motivate governments to move forward in this area? The most obvious, most repeated, most fashionable reason has been that of fiscal discipline. We all know that any country that shoulders a great public debt finds it impossible to emerge from a development mode. This is true for third world countries but also for developed countries like the United States, the United Kingdom, Canada. So the first reason, the main foundation for modernizing the State has been, far too frequently and in a simplified way, to cut the costs of government.

But that is only part of the story. There are other reasons that allow us to make of this reform something more sustainable. The second reason has to do with economic competitiveness. Today it is clear, because the world economic forum proves year by year that competitiveness is essential. It's not just the businesses that compete but countries, too. That is why, if we want to have countries emerging from underdevelopment, they have to have first-rate infrastructures, excellence in statesmanship, an entrepreneurial private sector and honest institutions. This is not just a matter for philanthropy or of embracing technology or of the good intentions of public servants. It is a matter of economic survival for a country. To modernize the State is a critical element in achieving economic competitiveness.

The third factor is social effectiveness. The kind of problem we are facing today presupposes an intervention by the State that is much more astute, flexible and intelligent than it had to be in the past. It is not easy to address issues such as sustainable development, urban congestion and harmonic urban development, an integrated conquest of poverty and drug addiction. And certainly they do not presuppose the State alone, though the actions of the State will make the difference in these kinds of issues.

Finally, there is a last line of action or argumentation that is more political in nature: the need of a public transformation to achieve economic development, to achieve democratic development, in continents like ours in which democracy is still far from being something familiar to us as a historical tradition. Issues such as improved services to our citizens, transparency and legitimacy in government are critical for anyone who wishes to achieve an integral development in a country and not just economic development.

Within this framework, in Chile during the last decade and especially during the government of Eduardo Frei, once the urgent issue of transition to democracy had been settled, a modernization plan was brought to the fore. There were six points in this plan, none of them unusual: human resource management, quality of services and citizen participation, transparency and integrity, strategic outcome management by the State, institutional reform and decentralization, and communication.

You might say now that every country represented here has put in motion integral programs or plans with these same elements. But just look back to 1997 when we created the national award for quality in public services, and an award for innovation, as a way to give more attention to the best practices, the greatest successes in Chile's modernization experience. What we discovered was something that was not so surprising. In each and every one of the success cases there were two common factors: clear and strong leadership, and a strategic use of information technology, and all this as part of a plan.

Why do I say this? Mainly because in Latin America there is the absurd and absolutely obsolete belief that changes in the law are the way to modernize the State. You have to change the statute that has to do with public servants, or change the number of ministries, as if by forcing the Holy Spirit you could transform a thousand year culture of bureaucracy, risk aversion and lack of transparency. The experiences that we have demonstrated within Internal Revenue, the National Health Fund, the Civil Registry, the National Pension Fund, the Customs Service, which were some of those we honored, were also proven not to conform to the law, to procedures established

by the Auditor General or by the Budget Office. Some of the services mentioned already had a world-class management while others were still in a prehistoric stage.

As a result, we have an answer to these serious concerns: to make e-government, or electronic government, a more prominent or vital part of the strategy we use in our modernizing experience. In that respect, it would make sense to think about what electronic government means. Someone spoke about this in the morning. I simply want to make a very similar point. Electronic government offers us something very distinct and different: the ability to drive our public administration in the direction of greater efficiency, transparency, accessibility and ongoing presence for our citizens, thanks to an intensive use of information and communications technology. This takes place within the government itself, within public institutions, as well as in their participative relationship with citizens and users of public services, both individuals and businesses. By this I mean, understanding that technologies are enabling tools, facilitators in a joint objective that was already there before the technology arrived.

In the case of Chile—just an example—in 1998 we took a first look at where we were. Certainly there was a lot of progress in some institutions. We had some surprises. I say this because it generated some concrete responses, but also because I believe that we want to move forward so rapidly in these matters that we don't always take the time to study the situation. Anyway, in Chile in 1998 we were surprised to find that there were 20 information networks at the national level, all of them self-standing. The Internal Revenue Service could communicate with the Internal Revenue Service, but not with Civil Registry, and so it went in all the institutions. Secondly, we found that 85 percent of the public institutions of Chile said that they needed critical information from another public institution to carry on their own business, and that information was provided on paper.

Third, we noticed that 80 percent of the services had some kind of intranet connection—when I say this, I'm thinking at the very least of two or three interconnected computers. There were 60 percent with some kind of Internet connection. When I say that, I include the boss's e-mail. In fact, we discovered that e-mail was absolutely restricted to the top level in the institution. I'm sad to say that this is going on much more than you think even today, inside Chile and—I can tell from your faces—outside Chile, too. The bandwidth was 46 kilobytes per second, which is a very bad connection, and still we were paying \$14 million if you add all the contracts for linkage and data transmission for all the public institutions. Last of all, we had 30 government Web sites. That was how it was back in 1998, not so long ago.

Now I'm going to share with you some exemplary projects we have done in Chile in our journey toward e-government, and then I will spend some time on the problems and conclusions, as well as the challenges that I think are most important. The first project that we put in motion, based on our findings, was the Chilean government intranet. We wanted something capable of integrating and coordinating what we are doing as a state, and if we could also get some savings and efficiency, well and good. A national public bidding process took place, taking advantages of a central government's economies of scale. The resulting five-year contract will lead to savings of \$60 million, because we have just one contract for the State instead of a multiplicity of linkage contracts.

Now add to that the technical improvements. I just said that we had a bandwidth of 46 kilobytes per second. In our wildest dreams we hoped to achieve a network with a bandwidth of one megabyte, and the wild-eyed optimists among us even spoke of ten megas. So what happened? The Internet offered to the Chilean State had one full gigabyte capacity, a thousand megabytes, a thousand times better than what we had before. The idea of being on the Internet was implemented throughout the central government, and today it is expanding into the regions. We're not just going to transmit data and e-mail, but we hope in the near future to have IP telephone capability, e-services and even—why not?—a massive use of secure electronic signature within the State. Anyway, this new Internet contract permitted 40 percent of the public services without Internet access to use it for their data transmission without needing to spend one peso more.

The second exemplary project we moved forward was that of the portal for the Chilean State. We noticed that we only had a few Web sites for the State, which was a nightmare for any citizen or business that wanted to find information on the network related to the Chilean State. You had to know the name of the institution, where it was located, or otherwise it was impossible to locate it.

So we created this portal for the State: *estado.gov.cl*, which also had a quality promise for users. I mean that if any information was available on the Internet about the Chilean State, you could find it on this Web site. Now I want to make it clear that only the portal was administered centrally. The individual Web sites each depended on their sponsoring agency. So from 30 Web sites in 1998, we have today 450 agencies with Web sites in the State's portal. There is a weekly contest in which the top five Web sites are awarded and given recognition based on a number of characteristics; the goal is to promote the best practices of the State in online services and information. We knew that it would be hard to conduct the information search, so we determined that the information should be amenable to searches by subject matter, by alphabetical order, by keyword, by governmental structure or by transaction number.

And what have we seen? A daily increase and improvement in information available, but also a demand for interaction and online services from the State itself. This is such a new development and it is too early to know what will happen down the road. Finally, right now the Lagos administration is busy preparing new sub-portals, for small businesses, for seniors, and also is working on a public policy for quality in online public services.

The electronic system for procurement—I will move quickly here because, as our Argentinean colleague explained, this has been a trend throughout Latin America in recent years. In 1998 we surveyed this area and identified \$7 billion in procurement by the State, involving more than 1.4 million transactions and, note this, expenditures of \$12 million just to print the public bidding notices in the newspapers.

So what did we do? We took two parallel steps. We had a bidding process to build the system; it wasn't done in-house as our colleagues did it. We outsourced the construction. And then we had another bidding process for its management. So one group set it up and another, under certain modalities, is managing the procurement Web site in the portal of the Chilean State. At this point it's just an information system. A supreme decree was published requiring all public services to report on it.

Right now all public services are online in this system. The system functions in a decentralized manner; each public service is responsible for placing its information online directly, not through any intermediary. A consulting company independent of the government estimated during our evaluation that the system when fully operative will lead to savings for the government of about \$200 million a year. Currently, even as the transmitting capacity has not increased and as we are just starting the information flow in government procurement, our follow-up study showed savings in some cases of up to 20 percent per year.

An important debate is now going on in Congress over a law that eliminates the procurement agency and allows procurement and posting of official government notices on the Internet. So the agency is to be eliminated, but not the role of the Comptroller because there will be a strategic procurement unit, very small with 10 or 15 persons. Right now we have some 7,000 vendors registered, and this is the take-off year for the system.

In regard to online services and information, let me give you some examples. These are all the public services that have passed through the bidding process during the last 5 or 6 years. All of them have undergone technological transformation. I will tell you clearly that I do not know of a single case of services, or of a public agency that has been able to undergo a big technological transformation unless that has formed part of an integrated modernization plan.

In the case of the Chilean National Customs Service, through which 95 percent of our exports pass, it takes place through magnetic media between Customs personnel and the Service. The agency that does the training has all its processes on the Internet including employment searches. In March of this year the Institute of Previsional Normalization, the one in charge of public pensions as well as the social bidding process—which is funded with a private tax—discussed the possibility of paying bid fees over the Internet with a direct declaration. The ‘Enlaces’ education project, which is a kind of computer network for education in Chile, after ten years has 100 percent of the city schools and 70 percent of the rural programs connected with a special computer program for use by teachers.

Finally, let me just show you some examples of public agencies that have moved forward beyond the central directives to carry out their own modernization and technological transformation process. First is the Internal Revenue Service, which in my opinion demonstrates the best use of technological strategy in all of Chile. Ninety-five percent of tax information in Chile was declared via Internet to the Service. This covers 57.6 percent of the tax returns, but remember that these include 95 percent of the tax information as such.

Now you can also submit a value-added tax return monthly via the Internet. You can pay your taxes via the Internet through a direct bank transfer. And the new development in 2001 is that this year, if you are a Chilean citizen and connected to the Internet, the Chilean Internal Revenue Service will provide you with a tax return that they prepared automatically from their database. If you agree with it you just say “OK,” and send your tax return via the Internet. If you have any problem with that you just submit your return the way you normally do.

Now let me add something to this that we don’t think about often: the very important positive externality that comes from computerizing the State. Let’s look at Internal Revenue again. In

1997, before beginning Internet tax returns in Chile, a survey showed that 2,500 companies in the entire country were connected to the Internet. Then the Internet tax submissions began. By the time the next tax cycle was completed, in 1998 there were 23,000 tax returns via Internet from different companies. Of course a lot of data were missing when the system started, and a lot of people shook their heads when they saw the problems. Now I don't have anything against accountants and auditors, but some of them were opposed to the system and said that it would fail. Then the following year the errors were corrected and 150,000 companies filed. Last year 440,000 companies paid their taxes by filing over the Internet.

What does this mean about cities like ours, in which there is still not sufficient awareness of the strategic importance of information and communications technology? Often it's a question of service supply driving demand and not vice versa. In the case of Internal Revenue we probably have the best example of that. For two or three years there was criticism and opposition to the system, but then the public accepted it and today it has embraced it as part of the system.

We ended by setting up a legal framework for electronic signature. I'm glad my Argentinean colleague is here, because the first experience we had with electronic signature was an international treaty signed by Presidents Menem and Frei in 1999. In January 2000 the Comptroller General of Chile, who is a great ally on this matter, accepted the first public registration where electronic signature was used as part of a pilot project.

Now, just so you don't think I've chosen the best examples and looked at the bright side of everything, let me say that this was also one of our failures. Why do I say that? Back in 1999 we already had a presidential decree authorizing digital signature within the government. We had our field tests, and we had the good will of the president and the comptroller. That was in 1999. And of course there was at least one bill in Congress to approve electronic signature. Here we are in April 2001 and the bill has not yet passed. In regard to the State apparatus as a whole it would seem that this way of doing things didn't exist, though it already exists. What I mean is this: in Chile today the State could be functioning without paper if it wanted to. And all those public servants are waiting for Congress to pass a law. That is unnecessary and it shows how hard it is to make any progress in this area even when the legal framework is favorable.

Let me share with you now some conclusions and problems we have found. These are the challenges we face. First conclusion: change is possible although in small steps. In 1997 when I became secretary of the Modernization Committee I traveled to Canada. Now I am a profound admirer of the rights enjoyed by the Canadians. And I would say, "So how have you done all this, and we have so far to go!" They had this message for me: "You start, and you'll be surprised by how much you can achieve in a short time by force of will and leadership."

Second, something obvious but important today, especially for those of us who promote this. Information and communications technology are only means, not the ends. To the degree that we are capable of linking them to objective political and social benefits, it is important that the elite understand their strategic importance. If we present them as ends in themselves, we will encounter skepticism, doubt and reluctance to put them to work strategically. Here is where shopping for technical solutions can bring savings, support and to a certain extent advances. You can 'leapfrog' as the Americans say. You don't have to invent everything on your own. It's good to do a little

shopping to see what others have done before, to learn from the successes and not repeat the mistakes. We have all made mistakes in this process. It is important to cultivate an institutional humility and take advantage of what others have done.

Now a point I already made: be aware of what is happening in technological strategies that can benefit your country. Probably there isn't anything more effective than to have a State putting its services online via the Internet. Once the people see that there is a good supply of services, they will find reason to access it, and if not, they will not understand a thing. To be successful and become a leader in this matter inside a government institution, in one country or one region, our experience has taught us that you need the following five things.

First: a clear vision and a plan. This is not the time to improvise. Second: clear administrative and political leadership. These are reforms that cost a lot to effect from below, and all the time invested in convincing people in authority about these means is time won for the cause. Third: without detracting from our medium-range and long-range plans, it is important to have some symbolic high impact projects that will yield results in the short term. In politics, which is something I understand well, six years is an eternity, three years is an eternity. So even though the entire project has a long-term horizon, you have to be able to show short-term benefits from the investment we are making in medium-range and long-range outcomes.

Fourth: make alliances with the private sector. It's impossible for the State to keep up with technological innovation. For that reason we have to cultivate and generate the capacity for new relationships with private parties. And why not form alliances with them whenever possible and whenever the legal framework allows. Finally, there has to be a competitive telecommunications sector. You can work miracles with Internet, but if it costs too much to connect to it, if the country's bandwidth is too narrow, if there is no access to telephone networks, there will be no significant social benefit in the country.

Based on the experience in Chile and in other countries, one could dare to formulate five steps to move forward to e-government. The good part of it is that you don't have to pass through them one at a time. They can occur in parallel. The first, the most basic—so basic in fact that some may laugh at the idea though it is still important—place all information that could be useful to citizens and businesses on the Web. Get it all out there. Think about how much information is kept in file cabinets today, in storage rooms, and even those of us who work inside the State don't know where it is! The act of placing information one click away from a user has an impact, a very important one with regard to preparing the way for e-government.

Second: integrate our internal systems with knowledge management, so that we move beyond data collection to management of that knowledge. Again a personal example of this. When I became Minister of Housing, I requested a report on what the ministry was doing. They quoted me chapter and verse, "We have built a million housing units in ten years and we're subsidizing 500,000 of them." So I asked, "To whom are we giving them? How old are these persons? Where do they live? Are they men or women? How much education do they have? Are they making their payments or not?" The officials showed me the individual cases, and it didn't take long for us to realize that there were no relational databases in the ministry.

And it was even worse. If you wanted to do a cross study of the budgetary activity and human resources and works management, there was no ability to know what was happening. In synthesis, a key element of e-government is internal integration and for that we need more than a Web page. This is an expression of something that has to happen inside the institution. There has to be an effective re-engineering of the process, an integration of networks so that they work with people. In the end the people will be doing the work, and we cannot underestimate their role.

Third: a move from one-way communication such as placing information on a Web page, to two-way communication between the State and its citizens and businesses. Find out what they want, what they don't want, and sometimes just simply—and this is the citizen function of every state—listen to the citizen. Right now we have possibilities that even Jefferson could not have dreamed of. He considered new forms of public participation, but there are so many new modes of doing this in terms of public service.

Fourth: electronic interchange of services. Set our imagination free, and it is good that we do so. But it is important to choose some goals and accomplish them. I say this because I have taken part in so many seminars with very long agendas where people make resolutions to accomplish 35 things. This is what I say: instead of resolving to do 35 things get one thing accomplished, settle on it and get it done. Believe me, once you get going you see that it is so much more complex than you thought when you heard someone speaking from this podium.

Finally, you work on government portals in which complete integration takes place. Here we are speaking of the notion of the single counter. I could mention the case of Singapore, the example that I know best and which is probably the most real, most concrete and most efficient. That is Singapore's e-citizen centre which has succeeded in really integrating the distinct public institutions.

These are the problems. But we all know that it is complicated. I will identify eight problems and obstacles in this process. The first: business and labor will be opposed. In my extreme innocence I think that everyone will give a standing ovation to the idea of incorporating this technology in the State. They will oppose it, and any implementation strategy must incorporate the ways to gain the support of those who will lose or be affected in some way by this technology.

We have to overcome the doubts and hesitance of our leaders. It used to be Y2K. Now it is the digital gap. Tomorrow it will be security of the networks. Someone has said that network security is like AIDS; it exists, no doubt about it, and you really have to protect yourself somehow because inaction might kill everyone. In this case the same thing applies. Security and violation of security are problems but there are ways to lessen the risk.

Lack of incentives to innovate. How are we going to occupy the creativity of our officials and leaders if there is not a single prize for those who innovate in these matters? And when there is an enormous threat of punishment for our mistakes? The old saying that the State "does nothing and fears nothing" could not be truer in this case. When I was in charge of the modernization effort they told me, "Don Claudio, to defend the State the only thing you need is patience." We have to be able to break this vicious circle or we will make no progress in this.

Fourth: if it is true, as I already said, that we need to make alliances with private interests—and probably externalize development and some service delivery—it is no less certain that we have to be able to strengthen the capacity of the State to accomplish its own goals. When I became Minister of Housing we had \$1 billion in investments, 3,500 employees throughout the country, and exactly 14 persons in information systems of whom only one had professional studies. If the State does not strengthen its capacities, these programs will not take place.

Integrity and continuity of initiatives and policies—once again I mention Singapore in this respect but there are many examples. These programs cannot be allowed to be abandoned by others. They need to be sustainable over time so that we see the results.

I'd like to emphasize lack of personal conviction from leaders and the media. There is nothing more serious today than the widening gap between the political discourse of our leaders and the time, action, funding and convictions these same leaders will take inside their respective institutions. There will be a huge frustration, because somehow there is no sense of the political or economic costs of not changing. Without the commitment of our leadership this will not happen quickly.

There is an imbalance between speed and a measured pace. You may think that I am crazy when I say that. But I am convinced that the cycles of technological incorporation must be much, much shorter today than in the past. I don't know what is happening in your case, but often in Chile the normal procurement cycle is much longer than the cycle of technological obsolescence. You will take longer to procure something than it will take for that same equipment to become obsolete.

That is why we need more rapid devices to incorporate this technology and identify some symbolic projects. Even saying that, and even if it sounds contradictory, not everything that happens quickly is good. There are so many cases of institutions or states that try to leap stages of integrated transformation and convert to the Internet from one day to the next, but the costs associated with these processes are great. So we have to redefine the relationship between a gradual process on the one hand that allows us to begin with pilot projects and expand upward, and preparation for a quick advance in these matters.

Finally, inflexible legal frameworks for private sector partnerships, and an excess of turf consciousness among the public agencies. We all know that this kind of isolation can last for centuries, because they consider that information is power and they don't want to share it with anyone. We have to get on top of that, and the same thing goes with private sector partnerships.

In respect to this framework, I'll finish by presenting some challenges that I see ahead for e-government in Latin America. First, the need to create a sense of urgency that allows implementation on a massive scale of these technologies on a strategic level by the State, the business sector and society. If there is anything certain in our times, in which the winner takes all, it is equally certain that this will increase the inequality gap between countries and within countries. That is why we have to be able to advance quickly and build an awareness that here we are putting at risk the future of the quality of government, the quality of our private sector, and definitely the quality of society in our countries.

Second, to keep this gap from spreading, we have to provide points of access for every citizen and cut the digital gap. Let me mention Peru. Despite all the problems in Peru, it has committed itself to one initiative, the entrepreneurial abilities of its businesspersons. Today there are about 850 Internet access stations in Peru, all through the country and especially in the poorest areas. On its own, the Peruvian society has done this. Now how many projects could there be to reinforce this? They could open their schools to the community so that others might have access to this useful technology. That is a political challenge for sure.

To press ahead toward digital democracy—and I know that this sounds a little strange, a little like science fiction, but not really. Look at John McCain, who sought the Republican nomination for president. He won a primary election and in just two weeks he raised \$3 million in donations through his Web site. For the politicians among us, this is information that is worth watching. Think of voter registration. In the case of Chile there are about 2 million youths who are not registered to vote. What would happen if we let them register via the Internet? Probably these youths are more skilled using Internet than their parents are. And it would make it much easier for them to take part in the democratic process.

Then there is the relationship between the representatives and their constituents, the access to legislative information, feedback on discussion of current legislation and—why not say it?—voting behavior. Brazil has been voting electronically for years, though not through Internet. And even though it may be hard to believe, the outcome is known in less than 24 hours, in a country with nearly 200 million people. There are cases in the United States in which voting took place on the Internet. What I'm saying is that there is an electoral challenge here. How can e-government help us not just to move to a more efficient State but also to one that is more transparent, participative and accountable?

This new reality must be capable of creating new models of public-private relationships, and be concerned with job creation. This will be another gap between our countries, when we want to develop our system and we don't have trained personnel. In the case of Chile, in the year 2010 we will celebrate the bicentenary of our republican life. And the president has presented this vision, toward which we certainly have to move, that of a digital state at the service of the people, where public services are on a 24 by 7 basis, where there are new portals, a connected government employing multimedia, citizen access to public information and massive use of digital signature. At least we're going to have to make the effort.

VACLAV PERICH (Czech Republic): I am an auditor in the supreme audit institution. Firstly I'd like to express my admiration for your results and your presentation. Thank you very much; it was very useful. I have two questions. One is linked to the electronic signature of citizens. It could be very difficult. We are observing in our country now a problem. Who is the best for organizing and maybe paying the costs of certification of the electronic signature of the citizens? For the common people it could be too expensive. Secondly, what is your experience in asking people to give you their data? In our country, sometimes people fear being pushed into embracing "Big Brother," and it could be sensitive, too.

CLAUDIO ORREGO (Chile): Your first question has to do with digital signature and how to compensate for the costs that this could have for citizens being certified. Actually, until now we haven't had a massive process with this. We have a bill for electronic signature in Congress. But I think that the experience of our Internal Revenue Service says a lot. If we don't really have electronic signature today we can think of it as a process of self-identification and certification of identity, for which there is a key, a PIN number that Internal Revenue has provided without cost to every citizen.

Certainly, when we think about carrying out massive business on the network on behalf of citizens, that might be a different matter. But my impression is that the benefits for businesses or the states if citizens are related with them by electronic means will allow these businesses and states to subsidize the certification of signatures when that is to take place. I have seen varied experience with this around the world, and I think that we have not yet arrived at a standard. We're all exploring, we're all experimenting and I think that in this sense it is a good thing to keep going with pilot projects that will let us find what works and then apply it to the entire country.

Now with respect to your second question, I think that you are speaking of the fear of citizens to hand their information over to "Big Brother." I think that there always has to be a mix of incentives, always the carrot and the stick. We in Chile, for example, have the requirement for every national to have a number. I know that this would not even be thinkable in the United States. But in Chile we all have our ID number. Our ID card is common to everyone in the sense that it follows the same format. So we have done some things in an obligatory way.

Of course there are other examples, such as the Internal Revenue Service, or the payment of pensions, or the training subsidy, all of which are implemented in an entirely voluntary manner. Yes, there are incentives there. For example, if you file your tax on the Internet you can wait an extra three weeks to do so and you can receive your refund two months sooner. If you register your child for the university or a training institution via the Internet, it is the same way. Do you see? There has been a greater use of incentives than of obligations, especially when we're dealing with the use of the Internet. In other matters we may oblige people, but there is still a stage in which participation is voluntary. For example, the largest businesses in Chile can no longer file their taxes voluntarily by Internet, though once it was entirely voluntary.

E-Government and Transparency: Latin America's Leadership

Ramiro Valderrama, ORACLE

I will speak to you today about transparency and leadership in Latin America in the area of e-government. I think it is important to remember, when we speak of e-government and what is happening in the world and in Latin America, that it all started with one portal, the portal of the sun, and that came before the Singapore portal and other portals people talk about. And when we speak of transparency and anti-corruption, it's always necessary to keep in mind who the customer is, the person we are describing in our countries. Our own people are the most demanding of any in the world.

How is the Internet being used and how is it impacting us as world citizens today, especially us Latin Americans? To start, we have seen that there are 400 million Internet users today. To put that in perspective, consider that it took 45 years for the radio to reach an audience of 100 million. It took 15 years each for the PC and television to reach that level, and now look how many use them in every country. But think: in only 5 years 100 million persons were using the Internet and now it reaches 400 million.

Take into account the challenges being faced in Latin America and the Caribbean. Of course we have many challenges today, including a lack of telephone penetration, poor highways, low usage of credit cards. We also have problems in using postal services to get merchandise to its destination. But in spite of all this we also have many opportunities and strong leadership in place. The fastest growth in Internet use is not occurring in the United States, not in Asia, not in Europe, but in Latin America where we have an average annual growth rate of 85 percent. In the case of some countries the annual growth rate is 100 percent. During certain weeks of the year more than a million new users are registered in Latin America; in Brazil alone we see cases of a million new registrations during some weeks.

Consider the growth of e-commerce. Today we are growing rapidly and expect that in the next 3 years there will be \$124 billion in sales via the Internet in Latin America. And if we increase our growth rate, which is already the highest in the world, according to some surveys another \$25 billion could be added to the economies of Latin America. Right now Brazil is an exception, but anyway you have to see the growth of e-commerce on the Internet. Last year it grew there by \$1.95 billion, and in the next 3 years it will total \$35 billion. Brazil is an interesting case, not just because it is an exceptional economy for Latin America, but also because most of its activity is completely domestic. They are not buying from the U.S. or Europe but mainly from Brazil itself. This same trend is manifesting itself in Argentina and Mexico.

So what is happening in Latin America? Our citizens, no matter who they are, are merely changing their expectations about government, about what government is providing, about what

they are receiving from government, about the kind of service provided. Think that just a couple of years ago governments attended to 97 percent of the people in service lines and people went directly to the ministries to carry out transactions. Today surveys in Europe and the United States are showing that transactions effected in person are dropping, and that they will only make up 5 percent of the total. Then there is the great growth in use of PCs and access to information. Several initiatives from Latin America are showing the way for the world. Claudio Orrego spoke of the public Internet booths in Peru, their increase over last year, the follow-ups and access provided to many poor persons in Latin America who didn't have the resources. All it takes to rent the facility is one dollar or the national equivalent. This leads to greater access, and narrows the digital gap that once existed. Mexico and other countries are following the same model.

What is the impact of this type of event? Here's a case I found in a publication of the Inter-American Development Bank, from a farmer cooperative in Cuzco, Peru. The growers took their potato harvest to the market to sell, and cleared on the average \$113 per month for their potatoes. So they began to see how this could change their way of working, taking advantage of those public Internet booths. They went to a priest—most likely a Jesuit!—and he started an Internet search to access the databases to see who were importing products from Peru. Out of that experience he came in contact with purchasers in New York City. So now what they are doing is selling directly to the purchasers in New York. Life has changed for these 50 small farmers, because their average monthly income has risen more than 10 times, to \$1,300. The most important factor in their success, for IDB, was the access to information, instead of the use of highways, energy, the market system in Peru or access to credit.

We could say that use of information is the determinant here, the most critical factor for these farmers. It is a single case, of course, but there are many other cases that make you conclude that something is really happening. In Macchu Picchu there is a peasant who made folk art to sell to the tourists. Once he used the public Internet booths he began selling his products in other places, Europe and the United States, via the Internet. In Guatemala there are other examples, such as the people who buy cotton from Egypt to make the textiles they sell directly to the United States, again over the Internet. The impact in each case seems to be an isolated one, but collectively it is strong and very promising for Latin America.

An important point that emerged from the survey has to do with the penetration of telephones or the lack of telephone lines. Latin America has the highest growth rate in the world for cell phone use. This is important because, if you look at the Internet growth in Europe it is being driven by the cell phone and mobile communication. At any rate the growth is even greater in Latin America, 60 percent on average. Countries like Mexico are growing 80 percent per year in cell phone use. Studies by Gardner show that in the next two or three years 40 percent of all transactions that will take place over the Web throughout the world will take place via cell phone or other wireless technology.

In this sense we have an advantage in Latin America. You just have to look at the studies by EMC and others to see that by 2004 we will have almost 190 million persons ready to access via cell phone, mobile or wireless technology. It's a significant impact that Latin America can take advantage of, developing its own solutions. In countries like Venezuela you already have more mobile phone connections than traditional wired connections: 4.5 million mobile connections right

now. These mobile units are assisting the transformation in Latin America by creating the infrastructure that leads to greater Internet development.

We have another advantage in Latin America, if we look at what is happening among the citizens. You look at all those using the Internet and you realize that half of them, 50 percent of all Web surfers in Latin America are less than 24 years old. That shows the great potential we have here for generating solutions. In our experience at ORACLE many of the solutions that maximize values and lead to advances today are coming from Latin America because of the reform we are preparing and working on here.

You also have to consider how men and women are using this technology. We find out that there is no difference in the percentage of persons of either sex who use it. This means that the potential in women's brainpower is hard at work and put to good use in Latin America. That is not happening in many other parts of the world.

There are two studies, one by Jupiter and another by New Marketing, and they are both very interesting. Last year they said that it is possible that Latin America, given the present technology in use and given good public administration and policies, to be the first region in the world to leapfrog technologies, skipping over computers and phone lines to head into the Internet age.

What is the importance of this access for Latin America? First, according to surveys of government personnel, citizens and businesses, we learn that 38 percent of the citizens and businesses say that the great advantage coming from this is transparency—the demonstration of responsibilities and the openness of transactions. That is the first answer they give. After that they refer to access, the lower costs (we hope) and the convenience, but more than anything else they think of transparency that benefits businesses.

Here are the five items that most concern Latin Americans: security, access to information, avoidance of fraud, more effective interaction with government and convenience in time. They are most interested in the time advantage and the convenience.

This question has come up before: What happened to all those dot-coms and how is that impacting the region? There were surveys last month that dealt with this concern. At any rate, 70 percent of businesses, states and governments are considering increasing their investments in e-government technology during this year and next year. Basically e-government is connecting with suppliers and citizens but, equally as important, it is connecting with government employees, with the aim of benefiting from their knowledge and making them work much more intelligently. In that way they will not just fill out forms and paperwork, but become knowledge workers, knowledge managers, in possession of a platform that helps them access this information from any part of the world in a secure and reliable form.

Many people are saying, "Okay, but how much is actually taking place in e-government today? What impact will this have for us?" A lot of things are said in the United States, and people expect much from that country as a technology leader. And indeed that country spent \$1.5 billion on this last year. But all over the world there was a total expenditure of \$4 billion. We see studies done

by KPMG and others that cover a total of 172 countries, and they all have some e-government effort and are receptive to more development.

Now in our own case we are discovering that it doesn't matter whether you are from Brazil, or a state like Rio de Janeiro, or Argentina with its taxing system, or Grand Cayman, Jamaica or Aruba. All of these countries are online and activating themselves, not just to provide citizen services but as another way to compete. In the case of Panama, we were interested in knowing how much interest they had, especially in becoming more competitive through e-government, and we're not talking about competing with Costa Rica and its other neighbors. They needed to benefit further from their financial institutions, the Canal and other local resources.

Here is another comparison. The U.S. Department of Commerce projects that the federal government carries on \$245 billion of procurement, but that it could save \$49 billion of that amount. They projected further savings if all procurement including the more regulated "high procurement" was transacted electronically over the Internet: as much as \$117 billion. That translates to a savings of \$1,400 per household.

I will make a comparison between those data and some for Latin America. For all of Latin America and the Caribbean, according to the Inter-American Development Bank, there is about the same amount of annual procurement, \$250 billion. There is a potential savings, just looking at inefficiencies and corruption, of \$50 billion. In other words, about the same as for the U.S., though the average savings per household would only be \$700 because of Latin America's greater population. What does that say? If we could work more efficiently in Latin America just in the area of procurement and bidding, we could have a savings of 20 percent of the entire budget. With that you could double the budgeted amounts spent today on education and health, which I think is very significant.

It is possible to speak of several cases of savings. In Buenos Aires they have documented hospitals in which there were savings of 47 percent, sanitation work with savings of 45 percent when they went online, school lunch programs with savings of 47 percent, kitchen operations with savings of 60 percent. And other countries don't have to take second place. In Chile when they started *Compranet* they realized additional savings and additional confidence in the process because the greater transparency. There's so much that can be saved. Chile expects to save 7-20 percent, and around the world the figure is 15-20 percent, if we extrapolate from the experiences in the United States and Europe as well as Chile. This compares favorably with all the other world regions.

In the case of individual transactions, what impact could that have in Latin America? We normally use all the data on the unit costs of bank transactions, airline reservations and other things. Here's an interesting published case from a bank, the largest private bank in Brazil. They saved so much from using the Internet, they could cut their transaction cost from \$1.50 to just 11 cents. They decided to give away Internet access. The banks were the first to do this in Brazil, but then the retail stores followed. Now a bank in Mexico discovered that it was cheaper to give away Internet access, to switch the people to the Internet and save money on their transactions as well as work more effectively.

Governments are also beginning to feel the pressure as people start to say, “If I can go to my bank, or to Amazon.com or to CNN 24 hours a day, 7 days a week, why can’t I do the same thing when I transact with government?” So Latin America is starting to change its mode of working. How then can we take advantage of this convergence that is taking place to set up one-stop shops in the different ministries as they’re doing in Chile and in Singapore? How can we realize the 35-45 percent savings possible by doing our transactions there?

Convergence is indeed taking place, allowing us to see how government can work more effectively with the private sector in Latin America, how it can collect tax revenues, how it can create linkages between social security, bank, government and physicians and promote information exchanges. This is the challenge we see in Latin America, and we are working on this jointly with national, state and provincial governments.

In Latin America I showed some examples of leadership in action. On the one hand we have quality services for the citizen and the evolution of related solutions, such as “point-to-point,” common infrastructure where the entities are united and knowledge management is begun among intelligent communities. You can start to see “point-to-point” solutions in places like Brazil with its 165 million inhabitants, where electronic solutions are farther ahead than they are in the United States. I’m sure that the people of Miami, which is in so many ways the de facto capital of Latin America, are interested in seeing this.

Other efforts now in place are similar to *Compranet*, and I wish I had the time to tell all about Mexico. While in the United States and Europe they are just talking about online procurement, Mexico is already doing 85 percent of its federal government purchasing online. We are beginning to find out how this information can be used to help small businesses to be more competitive and how it can lead to more distributed purchasing throughout the country—and that is a model system for the world.

Look now at common infrastructure projects now in existence. In the area of taxes there are projects in Córdoba, Argentina that are models for the entire world of e-government. One project in Valencia, Spain is directed at the systems of public finance, financial management, and workflow, with the goal of creating an integrated system that is a model for the European Community.

Moving to knowledge management: a lot of people criticize us Latin Americans because we have so much delinquency, so much crime, and we don’t know what to do about it. Certainly we have our share of delinquency, and unfortunately in the past we have not done well in judicial administration. But it’s also a fact that the most advanced approaches to these problems are emerging in Latin America. There’s the case of *Athos* which began in Bahia, Brazil, where they started analyzing how they could control the information, restructure government and the judicial administration to make these more effective, while not losing information and making sure that cases were dealt with in a timely and transparent way, and they decided to do this with an online system.

Well, these same requirements would fit the needs of people in São Paulo and other states in Brazil, but also Costa Rica, Canada and other countries. And one city’s approach will serve as a

model for these others. Since it is a question of benefiting from police, court and defender information, the focus is on knowledge management and the control of the process to provide more transparency. Intelligent communities refers to a project started in Valencia in which people began to see that they could work more effectively at using and distributing information at the local level in hospitals, schools and stores and in the process increase Internet involvement. It's a great project. In Latin America we have done this in the state of Rio de Janeiro and in Jamaica, implementing several projects and going on to the next stage.

What we want in Latin America, and what we are doing with our own developed models, is to do much more than distribute small transactions at the local level. We want to take all the information available and find a way to present it to citizens in a user-friendly way, so that they can analyze it from two points of view. The first point of view has to do with how the information affects us in our own lives. The citizen can compare the services and expenditures of a nearby hospital with those located in other cities; public health services can be compared across different parts of the country, and so can measures of criminal behavior. This allows for more effective participation by citizens who approach their city governments and mayors, or even the governor, to ask for more resources.

This has become a very strong political issue in Latin America, where we hold occasional elections, because when the elections take place the people cry, "What have you done for us? Where are the service improvements you have given us?" If you go to Rio or to Argentina where these information initiatives are well advanced, you'll hear that.

The other point of view is that of the State looking for ways to provide information to its citizens, to businesses, so that they can become more effective. In Colombia there are several regulatory entities that have made studies funded by USAID concerning money laundering as well as control over the country's natural resources. The control problems come up when you have to deal with the commodities exchanges, and find ways to obligate the buyers and sellers of your products. They realized that they had stored a huge amount of geographic information about things that were being produced, where they were being sold, what was the product cost and which were the most efficient. This information could be sold to other countries to encourage development from outside. And when people come from Germany and other countries to acquire a mine, the Colombians can sell them the information that increases their visibility, which provides a service to the country and becomes a source of income at the same time. Another example of how Latin America is leading the way.

We are heading into the second generation of services, and we see the trends in how information is created and shared by using mobile communications and cell phones and creating new services, but also to gather information that no one had considered before. Puerto Rico began to consider the issue made world famous by the O. J. Simpson case, in which the police did not have at their disposal any information on the previous domestic abuse cases against him.

So, in Puerto Rico they are linking the emergency 9-1-1 services, the police, hospitals and social services agencies. Then, any time a call comes in to 9-1-1, there's an immediate collection of information, such as could come from social services about possible spousal abuse, child abuse, neighbor complaints. And they could dispatch not only a police officer or firefighter, but also

social workers to handle the problem in a more integrated way. This kind of information can be held in other ways, not always stored in a computer, but communicated by cell phone or another way.

Some of these services have great impact. Consider the motor vehicle office in São Paulo; consider their tax collections. Before 1998 you would go to their office and pay a facilitating surcharge of about \$10 to help with all the steps necessary to pay for vehicle registration. Today there are small “express” offices with their computer systems. Before you had to wait 10 days to have your registration updated. Now, from the moment you enter the office until your registration is updated and you pay the fee you wait a mere 10 minutes. And the fee is only \$34 with no surcharge.

Here are the impacts: convenience for citizens and reduced time. But I have also discovered that in São Paulo State they tripled the amount of revenue they received, and have realized an additional \$1.8 billion since they installed the system. The direct impact happens when persons access e-government in an easier, user-friendlier way. The citizen doesn't mind doing it. It is a cultural change for the public servant just as it is for the citizen, to achieve such effectiveness.

Earlier this morning there were some presentations about the cost and the net preferences people had. Here's another perspective on that. Today we are seeing how we can get “RR,” a rapid return on information, as opposed to the traditional normal return on investment. We see that technology is increasing, the total cost of government is dropping and at the same time the value for money provided to citizens is rising, as is their quality of life.

In my case of e-government, there's a project in Jamaica that will be duplicated in six other parts of the Caribbean. It's interesting to see the decisions that have to be made. First you access the government service from your television set, which is an important medium in Latin America because everyone uses it. You always have the satellite dish. It's incredible that we have one of the highest television usages in the world, so we have to take advantage of that just as we are of the cell phone. You can access information from your television set, from a mobile phone, from a computer, from the Internet booths, the kiosks, e-mail, citizen services, where an interaction center is set up with citizens to capture information and their requests and provide citizen services. It does not matter which ministry they are looking for.

Now we're talking about capturing the information. The “oneness” notion, of a single user approaching a single government was already mentioned. What we want to do in the Caribbean in our e-government projects is to move effectively in that direction, where government can be interacting with government, receiving additional services, purchasing from or expressing concerns to government. This information is recorded, it is supplemented from the database, it is put to work to provide more effectively for the active citizen's needs. But we are also seeing how we can use this information to make a city, state or country more competitive.

Finally, we can see how the information can be integrated, so that everything on file in the justice domain, or the police domain, or the court, or the penal institutions, as well as in the domains of health and education, etc., can be integrated by taking advantage of the systems now in existence, to put them all on a platform and analyze the information in a more shared and

integrated way, then to analyze the processes with the goals of saving money and giving better service to citizens.

This process is repeating itself in other places, and implementation is taking place in different cities and states. For example, in Mexico we are working with the states to achieve an integration of revenue collections, financial management, public payrolls and human resources. Remember that in Latin America usually 80 percent of our public outlays are in the area of human resources, the public payroll. How are we going to make this system more effective, and in the process become ourselves workers of public trust?

We're never going to have to worry about creating wish lists, because we're in such demand from governments. But we do have to worry about how to satisfy all the demands. And if there are people that have some ideas, you train them to generate more ideas and put them in motion. You have to have a platform that allows access to this information and that gives people the information they need, that allows integration of information in each area. Then you look for a way to access all this information through a portal that assures transparency and accessibility for everyone.

Now there are several other portals being created in Latin America. Some of these are starting up in Colombia, working in one of the social service agencies on the problems of crop substitution, emergency services, decision support, and applications for wireless mobile lines. They are benefiting in the area of agriculture from solutions having to do with crop substitution. We can see how much money was spent, and by using satellite connections we can compare this with information already in existence, in crop cultivation surveys. They can also make a cross-comparison between their own studies and census figures for the farming areas in question, to see who used to live there, what was their income, what did they produce, and you look at substituting other crops for those now in cultivation to see what the impact would be in each case on the citizens.

In this way the intervention becomes more proactive, because you find out what social services are needed, but you also link this up with the financial management system to show how they live off their present crops, how much they earn, how much the change may benefit them, all in terms of the public policy goals and process controls.

To conclude: we see all these projects in Latin America, so many of them, so many challenges and so many opportunities. How do we start? First of all I invoke Simón Bolívar for the sake of the Venezuelans present here. You have to start with a vision of where we are going. It has to be a broad vision, but you also have to realize that you can't do it all at once. You have to start modestly with a small project that can be developed and implemented in 90 or 120 days, then see how you might expand or increase its dimensions, and demonstrate results. In each one of these projects we have worked on, people are asking for a rapid impact that they can show to the citizens, and citizens can access the information, and value for money can be achieved. Those things have to be assured if you are going to keep going quickly toward realization of the vision, remembering all the time that each project has to provide some value added to the process.

I hope my presentation has been helpful, as a rapid panorama of Latin America. There are a lot of challenges in Latin America but there are also a lot of opportunities. There are really many things that we see happening that are centers of excellence. Now there was a minister in the Italian government who once said, “We have islands of excellence in a sea of inefficiency.” I think he is right. We have many world-class solutions, and we should be very proud of this, and see how we can benefit from these success stories to apply them to all of Latin America. Many of the efforts mentioned here have brought other countries in Central Asia and Eastern Europe to look to us for leadership and help in applying our work to their situations. Thank you very much.

MARCELO TORO CAMPAÑA (Ecuador): I know that ORACLE has an extraordinary database, and it may be the largest company in its field. Just speaking of Latin America, which of ORACLE’s systems would work well only there? You are free to talk to me about your company as much as you want.

RAMIRO VALDERRAMA (United States): As far as we’re concerned, we have all the products. We’re the first in the world in databases. We’re first in data warehousing. We’re first worldwide in e-commerce, when you get into portals, servers and applications. 96 percent of everyone in the world with *Public.com* run on ORACLE. Of the largest systems in the world, whether we’re talking about the U.S. or Latin America, 80 percent of them run on our platforms. In human resources, we’re among the top two in the world. In financial management, we have taken over first place, according to a recent PricewaterhouseCoopers study.

So those are some of the solutions we have and their magnitude. Although you know us mainly for our database work, we really do information management. That is our strong point. What you see in Latin America is how the information will be managed. The most important thing we do in the emerging nations is information management. There’s a study that just came out in *The Economist*, and it says that for the emerging nations we have so much information that is not captured. Just taking government assets: there is a loss of \$9.3 trillion in value. If we could just capture that information, we could receive in our own countries more than the industrialized countries have provided us in aid, or rather have provided throughout the world.

So it is the management and control of information that is most critical for our countries. These are the issues that we are addressing in Latin America and the world today.

JIM HAMILTON (United States): With regard to smaller nations, is ORACLE flexible in its systems and Web sites for government entities that aren’t very large?

RAMIRO VALDERRAMA (United States): This is a relative matter because there are various kinds of “small,” and they are located in different parts of the world. ‘Small’ will not mean the same thing in Latin America as it does in Europe or the United States or some other scale. We have solutions for middle range companies, to be honest. Many will say, “With ORACLE, even if you toss something out it becomes expensive.” The product is expensive because sizeable security and management are involved. If you have a medium-sized business that is growing, we’re there to help them. For really small business, like your corner store, that’s not our territory, and anyway

there won't be any large information use issues there. But you can look at Microsoft, and see that its largest systems also run in our small towns; it's the only way.

Now we are working more at the middle range and above. But still, when we talk about nation states and what they are doing and their impact, those will have a far greater impact on what the small businesses are doing. *Compranet* was already mentioned, and one of our small countries is doing something like that. In Mexico they have a big challenge, to take the procurement that was going on in the Federal District and make sure that most of it goes to small and mid-sized companies outside the Federal District. That was one of the specific goals of *Compranet* and it was achieved. The same thing happened in Colombia with their defense procurement: they wanted to have a positive impact in the area of small and mid-sized business by the way they purchased clothing and foodstuffs. In that way we are indeed having an impact on small businesses.

Nation Building: Rapid Public Sector Financial Systems Implementation in War Torn Kosovo and East Timor

Alan Pearson, KPMG

Grice Mulligan, FreeBalance, Inc.

Alan Pearson, KPMG

Good morning, ladies and gentlemen. It is certainly a privilege for me to be here with you. This is the second conference I have attended. I was an observer three years ago. It's a real privilege for me to come back and stand here in front to pass on some of the information that we have discovered in this nation building exercise.

I don't think I need to dwell on the fact that in the early part of 1999 NATO conducted a substantial bombing campaign in both Kosovo and Serbia. This lasted for approximately three months and then terminated in early June, leaving the United Nations to move into Kosovo with an interim administration.

I would like to touch on the history of this because it is critical in understanding some of the things that we then had to do in setting up a financial system. Firstly, Security Council Resolution 1244, which is referred to quite often, provides the mandate for the UN to do its work there. The objective, of course, was to establish an interim civil administration with the legislative and executive powers, and also the judiciary—the triangle in any nation in terms of its governmental structure. But the second most important point was that we had to promote the establishment of substantial autonomy and self-government functions. Now in doing this, the Resolution did not address the final status of Kosovo, which I'm sure if you follow the press you will be aware is still under intense debate as to whether it will become independent, an autonomous province of Serbia or what. We were not asked to address that issue, but simply to act as if whatever happened, substantial autonomy would be the end result.

To do this, the UN actually set up an extremely complex arrangement. It established a United Nations Interim Administration in Kosovo (UNMIK) with what is referred to as the “four pillars.” The first pillar was in fact UNHCR, responsible for humanitarian and refugee return issues. The UN itself had the establishment of Civil Administration. This is what we think of as the majority of line ministries or departments within any government structure—the health, the education, the sciences, and so on. The OSCE was charged with establishing the political process and developing the mechanisms for self-government and, in fact, was responsible for developing, managing and conducting the local government elections that occurred late last year. The European Union was charged with the economic development and reconstruction of Kosovo, an appropriate job for the European Union given the proximity of Kosovo and the stability of Central and Eastern Europe.

Why then am I standing here you might ask, as an Australian from KPMG Consulting? The European Union did in fact ask the U.S. government to assist with these activities and they responded by providing a number of people, myself included, to look at the financial side, in particular the Ministry of Finance, the banking sector and the trade and industry portfolios.

What was our challenge when we started? Well, first of all, we had to start with nothing. And when I say nothing, I mean nothing. There were no laws or regulations. There were no people involved in our area of work. There was no infrastructure, computers, etc., and there was no banking system. What we did inherit, however, was something like 55,000 public or civil servants who expected to be paid regularly, and to have money to conduct their jobs in education and health and the other sectors.

The second challenge we had was to establish something that had a high degree of integrity in its work with regard to revenue raising and the expenditure. The reason for this, as I will cover further, is that over 50 percent of our budget finances (and here I talk only of the operating budget, not the capital budget) was in fact donor financed. Those of you who are familiar with international organizations or the World Bank realize that most Bank and donor financing relates to capital projects or investment. They do not finance operating deficits. But that is what they chose to do in Kosovo. Hence, it placed a considerable weight upon our shoulders to make sure that the processes we had were adequate for their purposes, for accountability.

I turned, without apology, as a starting point for our work to the issues of good governance which I think you will probably hear more about this afternoon from a colleague of mine, Mr. Bill Allen. They are straight out of the transparency manual, and I believe an outstanding starting point for the work we were trying to do. I must say that in some areas we have probably fallen short of where I would have liked to have helped, particularly in clarifying the roles between the levels of government and, in some respects, we were slow in getting the external audit component installed.

We turned to what we call the Central Fiscal Authority (CFA). For reasons related to the lack of sovereignty in Kosovo, one cannot refer to it as a Ministry of Finance or a ministry at all. That implied a sovereignty which was of course not in our mandate. However, in accordance with the system that was set up by the United Nations, the Special Representative of the Secretary General (SRSG) established it by Regulation. Now this regulation that the SRSG issued has the same force of law as if it had gone through a Parliament or a parliamentary process. In addition to that, there was an interim administration structure established to integrate Kosovars into our work so that they could eventually take over what we were building.

The CFA answers to the Interim Administrative Council, a body of eight people, four Kosovars and four internationals. This Council represented the legislature which advised Dr. Kouchner at that time whether he should sign or not sign the regulations.

We established a treasury account to receive revenues and the Head of the CFA "Minister of Finance" was provided with the power to open bank accounts for this purpose. Withdrawals from that account were by appropriations only, and of course this required an annual budget law from the SRSG for this purpose. Most critically here was that the expenditure was very specifically

limited to the revenue received. I'll come back to that. The SRSB was also empowered to appoint the external auditor. That is, the external auditor was clearly independent from the CFA or the banking system and in fact was responsible directly to the SRSB, that is, to the legislature.

Another key point that was spelled out, and was some cause for confusion, was that the Kosovo Consolidated Budget (KCB), that is the operating budget of Kosovo, was completely independent from the UNMIK budget, that is, the budget that the United Nations provided to run the mission. However, there were always gray areas in this and considerable debate would ensue about who should pay for what in the context of running the interim administration. The consolidated budget itself was a consolidation of the general government, that is it consolidated the central government level, the municipalities, of which there were 30, and the public enterprise sector. That included the grants to the power company, the telecom company, the railways and the aviation sector.

The overall job of formulating the fiscal strategy was based very clearly on sustainability. One of the key points that I come back to on the subject of donor financing of the deficit is that donors are not going to do this forever. Hence, anything that was established in Kosovo, including its expenditure policies and its revenue-raising activities, had to lead in a very short time to the establishment of a balanced budget. This was, in our estimation, something that could occur over a three to four year period. There were two things involved in this—convincing the donor community that this could in fact happen, and at the same time, that we had mechanisms and procedures that would protect the expenditure of their money when they gave it to us. Consequently, we clearly needed to develop revenue and expenditure policies for this purpose, and to develop revenue-raising programs. I emphasize again that without borrowing capacity we were fortunate that we had no debt. Even when donors such as the World Bank provided us with funds for the budget, these were grant monies from the Bank and not loans.

The roles of controlling expenditure and revenue raising are fairly common in any Ministry of Finance. However, we also were charged with the job of determining the procurement framework for the country. This required us very early in the piece to write a procurement law that set out how Kosovo Consolidated Budget funds would be used in the procurement process. In this sense, going back to the mandate of establishing some sort of autonomy in the country, we chose not to follow the UN procurement processes or the World Bank procurement processes, but in fact to establish a set of what we felt was best practice procurement arrangements which could be left behind.

We also had an internal audit function set up which in fact did conduct audits. And this again was an interesting exercise. The internal audits were conducted by the CFA on other international people who were part of the United Nations mission. That again presented us with challenges in doing this in a manner that was protecting Kosovo money—the Kosovo Consolidated Fund, again, a series of bank accounts that we had to open for various purposes.

And finally, of course, we were responsible for financial reporting. That was a key issue with our community—the donors and the locals. I won't dwell on the organizational structure. The issue I just mention is that the CFA was set up very much as any ministry of finance with a treasury, budget office, budget preparation, tax administration, custom service, etc.

For most of this period I had a Kosovar Co-head who was a political appointee, and all decision making on what happened within our authority were in fact joint decisions. That in itself was a challenge—to reach agreement with the Kosovars as to exactly what would happen and how we would do business, while at the same time looking after the banking system.

The treasury and expenditure operations were fairly standard in terms of expenditure and revenue controls. The banking arrangements themselves were, I won't say complex, but were quite different. Firstly, as I mentioned, there was no banking system. It is, or it was, and I believe predominantly still is, a cash economy. By cash I mean Deutsche marks, and a 20 Deutsche mark note was a large denomination note! So we had the responsibility initially of providing the bank notes which normally one would see the central bank managing. That again provided us with some considerable challenges in getting money from outside Kosovo into the country physically.

There was, however, in the early stages a Banking and Payment Authority of Kosovo (BPK) being established, which was to take on a number of the roles that you normally see in a central bank. It is now functioning to a large extent, and so a lot of the issues that we faced have been resolved. But there is still no banking system in terms of a capacity for inter-bank transfers and electronic banking activity.

We opened an account in Commerzbank in Frankfurt. This was very specifically to provide donors and the international community with a place to deposit their money. We had a number of agreements with the donors, particularly the European Union, member states of the European Union, the United States, and a few other countries, to donate this money. How did they do it? They simply put it in the Commerzbank account in Frankfurt which left us with a positive balance in the account there, but we still needed money in Kosovo. Within three months the Micro Enterprise Bank (MEB), a joint venture predominantly with Commerzbank again, established branches in Pristina and provided a capacity for small-scale banking activities, including for us.

The other major exercise that was involved in this was to instruct agencies on funds management requirements for revenue that they were receiving, and on how they should process and operate the expenditures. It was indeed interesting that the majority of the United Nations staff that arrived there had very little experience in financial management, yet they were the people who were responsible for the expenditure of the large part of the budget. They were the decision makers as we tried to set up very clearly the different roles between the CFA and spending or line ministries. There was considerable effort devoted to actually teaching these people basic expenditure controls, basic form filling and what they should do in exercising their duties as the expenditure manager.

On the revenue operations, again, we had the requirement to establish very quickly a tax policy framework. And again, we were starting from nothing. The customs service itself was set up in early September 1999 and started collecting revenue almost immediately. As I mentioned before, they were very carefully referred to as a "boundary line" collection. We did not have borders, of course, with Serbia or Montenegro. So we had boundary lines where we collected customs, excise and sales tax. We also quickly established a presumptive tax, that is, a business income tax in a normal sense, as our revenue base. Developing the revenue estimates, again, was nearly

impossible. They weren't estimates; they were guesses. We had no history, we had no track record and we had no idea. So we would track it on a daily basis. We tracked the collections and the estimates projected daily, trying to build in what we knew about what might happen with no history to guide us.

Just a quick comment on the budget itself. On the expenditure side for the financial year 2000, the budget was approximately 430 million Deutsche marks. Not large by most countries' standards, but it was growing. This year I understand it is closer to 550 million and growing. But the key to that was sustainability. We could not develop a budget that could not in the long run be funded by our own internal revenue sources.

Public enterprises, however, added to the overall consolidated government budget for 160 million odd Deutsche marks. This included the electricity company, the railways, water utilities, etc., who had a fee for service generation capacity. Special projects were approved where development costs from donors were passed through our budget but were outside the deficit financing that I mentioned. Again, we look at the revenue, our own sources, and see estimates of about 206 million, and from donors, 222 million.

Where did it go? The priorities in the country in this stage were basically the health, social security and education. And something like 60 percent of the budget went to those categories.

If we look at it by economic classification, wages and salaries of the 55,000 people I mentioned took up something like 38 percent and the subsidies to utilities and transfers, particularly social security transfers, another 30 percent. So nearly 70 percent by economic classification was going back to individuals in Kosovo. On the revenue side, I have mentioned the high dependence on donor grants in comparison to the rest of the taxes we had in sales, customs and excise collections.

Let me go on now to the issue of establishing the systems to manage this. We were quite comfortable with the policy framework, the expenditure control framework, but everything was paper-based. The entire system that we set up worked on pieces of paper. That is, we had payment orders, we had commitment orders, everything was paper. We tracked it after the event in a Microsoft Access spreadsheet so that we could produce financial reports. Now keep in mind, please, that I'm talking about all of this happening in a period of less than four months. What I have described to date occurred between September and December of 1999.

The next phases we had were to move to a more robust accounting system and a more robust IT system. We had some very key issues in doing this. The first one was that it had to meet our requirements with minimum customization of any accounting packages. We did not have the funds or wherewithal to enter large-scale activities in this regard. Along with that, we were highly conscious that maintenance into the future, which must be borne of course by the Kosovo budget, had to be relatively simple. Affordability was driving us very clearly. In fact, over the period of September through February in 2000, we went to public tender twice with a full set of requirements specifying these issues, and unfortunately we were unable to attract bids from that part of the world that were affordable. The costs were a key issue.

Just to look again at what we were looking at from our accounting perspective, we wanted something that met proper internal expenditure controls and revenue-recording procedures, and was robust. It needed to provide management reports for the accountability purposes of the ministries and the CFA. We were also quite conscious of international reporting requirements, particularly the Government Finance Statistics (GFS) requirements. The reason for this, of course, was our dependence on donors and the requirements they placed upon us to see the information in these formats.

The other issue that we had to turn to very quickly, as we knew the local elections were in the wind, was to have something that could cover requirements of lower tiers of government, or that could be simply interfaced with the lower tier of government once they established a financial management system of their own.

Let's look briefly at the control points that we had as keys for our control system. First we had the standard parliamentary appropriation issue. We issued funds allocations to ministries—a standard technique in many countries. We had commitment authorizations when ministries made commitments to spend those funds that were allocated. We had a procurement process over which we had some control. This led to an approval for an expenditure, a generation of a true liability in that sense. We had a certification process where goods and so on have been received, and the bills are correct, etc. Finally, we had the payment. Now, these are not rocket science. They are fairly standard and we were looking for an accounting package that would accommodate these without modification.

I'll touch briefly on one an issue that I think most countries have had to deal with over time, and that is its chart of accounts that are used in both the budget preparation and the budget execution. The key here was to look at the organization and function so that we could line up our organization within Kosovo with the functional categories in GFS and produce it in one set of numbers. A second issue which was equally important was the economic classification. There is a very standard classification exercise, that I think a lot of us have probably gone through in other places, to classify things into wages, other goods and services, etc. But what we clearly wanted here was the capacity to work with World Bank projects and provide a classification structure within the system that would accommodate that and also would accommodate external reporting classifications specified by other donors. The reason we wanted this was to look ahead where the Kosovo budget no longer controlled only the operating budget, but also was responsible for the management of the capital budget or the investment budget. In the early stages these were separated because of the magnitude of the investment budget, close to one billion Euros in the first year, and the fact that it was run under the donor procurement rules. The European Union being the largest donor specified its own rules for its own procurement, so we were not involved. That process would change over time, and we were trying to look ahead to have a chart of accounts and system that would accommodate both aspects of the budget process.

I want to just briefly say one other thing. I made an earlier reference to a Web site, the Kosovo CFA Web site. I was intrigued yesterday to listen to the speakers tell me about e-government, and to get frameworks for e-government that talked about customer service, and how it was set up. I reflected overnight on that and thought, well, actually we set up a Web site, but it was in self-defense. The reason we had a Web site was sheer preservation on our own part. Our donor

community and everyone was always clamoring for information on what was happening. The e-mails and telephone calls were daily. We decided very early in the piece that we could not answer each one of these independently, so we established a Web site. That site has been substantially developed since then. So, in reality, we were serving the customer. They learned very quickly that they did not come and ask us for the information, they simply checked into the Web site. We were able to put our monthly fiscal reports on there, usually within a week of the close of the month, and this provided them with narratives, our numbers and projections, our revenue forecasts at that time and revenue actuals. And that satisfied the large donor community's thirst for knowledge, given that Kosovo was an extremely topical place at that point in time.

The second set of customers, and this was important for us, was our own internal people with whom we were dealing in the line ministries. We put on the Web site all of the regulations, all of our instructions, all of our procedures and all of the forms. Anybody who wanted an expenditure form or any form of any sort could download it from the Web site. That again increased our interaction with ministries and basically satisfied their requirements without the constant workload that went with a paper-based system. So I guess we got into e-government by mistake or by default. I can only say that it has been extended and I am certainly pleased that we did that.

I would like to stop here because I think I have said enough as to where we went, except that we still didn't have a system. We had had two public tenders that had not provided us with something that was satisfactory, and we had to move on from there. It was at that point that we were put in touch with FreeBalance, who subsequently provided us with the accounting system. I would like to turn it over now to Grice Mulligan to talk about their experience in this environment.

Grice Mulligan, FreeBalance, Inc.

I was called in by the IMF to call Alan Pearson last April, and it turns out that I was literally calling Alan while I was here at this conference. I was calling him from my hotel room to find out what his requirements were to determine whether or not we could meet the requirements and also satisfy the requirements of Kosovo from a financial system perspective. I had a general idea of what was going on in Kosovo based only on what I could see on CNN and what I could read on the State Department Web site, what I could read on the Central Fiscal Authority Web site and what I could gather from the European newspapers.

It was nothing like what I expected. I was finally called to go to Pristina, Kosovo on a Friday at around 5:30 in the evening, and I was asked to leave 23 hours later on a plane for a stay of an indeterminate amount of time in Kosovo. The challenge that I was given was to show up in Kosovo and to see if we could implement, with our off-the-shelf system, a financial system for an organization that had no experience with financial systems other than the Access-based system they were using at the time. It would be used by people who had little to no understanding of government financial management practices, in an area that had no technical infrastructure and had no money to pay for anything. So this was an outstanding sales opportunity.

Along with the limitations I've just noted, there was a weak technology infrastructure, so the initial implementation was on my laptop computer. The reason we put it onto my laptop and sent it

on to a server was because there wasn't a server. There was a server that was being installed when I arrived, and that server was running an outdated version of Windows NT and it would crash on a two-to-three-times-a-week basis. For the first three weeks that I was there we spent the majority of our time keeping the server running, being less concerned with keeping the software running.

Alan mentioned that not only did the employees have minimal experience, but the international organizations that sent their people into Kosovo, including most of the representatives who were appointed, didn't have any experience either. One of the challenges we ran into was when we were trying to train the Central Fiscal Authority staff to record transactions that had previously been recorded on paper in English by all the appointed international officials. We had to reckon with the fact that most of the transactions that had been recorded by the international officials were completely inaccurate. So using transactions recorded from January 1st through the end of May, if you looked at the substance of the transaction and you looked up the coding that had been recorded for the transaction, they had very little to do with each other.

As I mentioned, there were scarce financial resources. I was in fact showing up in Kosovo under a USAID contract under KPMG, organized by the IMF, organized by the UN. I was asked to show up as an independent contractor instead of under my company name because that made it more difficult to coordinate and to create a USAID contract. So I actually showed up in Pristina at a daily rate that was less than what it cost my company to have me on staff.

Then we had a problem with urgency. There was a limit of time. The contract that I was originally put under was good for two weeks. So I had two weeks to show up in a country, get a system running without an infrastructure, train a bunch of folks who didn't speak English (and I unfortunately don't speak Serbian or Albanian), get them up and running on the system, make sure the system was configured and produce reports as fast as possible. Part of the reason we were so urgently needed, why the time was so short, was they had been running a system, as Alan had indicated, for about six to seven months that was developed in Access. And that system could no longer produce reports. For example, if you ran the reports vertically and asked for a total, you'd get X, and if you ran that same report and asked a question going across horizontally, you'd get Y. Unfortunately, if you're a donor and you've provided money to Kosovo, that doesn't make you feel very comfortable with what's going on. So we had an urgent requirement to get something up and running.

We went through the FreeBalance step-by-step implementation. This is relatively simple, and when I say it's simple, I mean that we have written a guide that goes along with our CD which we give away for free. Any organization can implement it by reading this guide and get the system up and running, which means that even somebody who is head of sales can figure out how to do it.

Our first step was to configure the chart of accounts. This is a relatively straightforward process. The system allows us to develop a chart of accounts that has multiple segments, numerous tables, with both hierarchical and linear relationships. Because the system was only designed for government, it is very easy to assemble a government chart of accounts structure.

Then we configured the financial coding blocks. It is unlikely that you would record an appropriation at the same level of detail at which you'd record a journal voucher or an expenditure

transaction or a commitment or a budget or what have you. So there are multiple coding blocks to be configured for the different transactions you might record.

Then of course we developed and entered the supporting table elements such as the vendors, the bank accounts and so on. We configured the management parameters or the management rules of the different modules of the system. We entered some test transactions very briefly to make certain that we could enter the transactions, capture all the data that was being recorded in the transactions on paper and record the different management variables that were required to keep the transaction detail manageable within the system. Then we produced test reports. Now I mentioned earlier that we did this very rapidly. The idea was to make the system live, to get it up and running as fast as possible.

So I arrived in Kosovo on May 6, and we configured FreeBalance and ran through that entire set of steps five times in five days. We didn't run through the same set of steps perfectly five times in five days because we didn't know what we were doing. Imagine that you are trying to create for a theoretically soon-to-be sovereign entity, a chart of account structure, a financial management system configuration and an information system that is going to be used to manage the entire country's budget. And you're going to do this in five days, and you don't want to make a mistake.

So on Monday morning we would start configuring the chart of accounts based on a discussion. On Monday afternoon we had something that was ready to show. And on Tuesday morning someone who was working in another part of the organization would hear that someone was configuring a financial system and would want to have a meeting. So they would come in by Tuesday at noon and say, "I'd like to be able to record the following information. Does your chart of accounts and your configuration allow me to do that?" And invariably the answer would be yes, but maybe not to the level of detail that you would require. So we would start over. And on Wednesday this would happen again. And on Thursday. And then again on Friday. And since we were working a six- or seven-day workweek, it was late Friday evening when we finally had the system configured. On Saturday morning we began training.

We trained the data entry staff who spoke very little English and in some cases zero English. This was 10-12 folks who had very little experience with computers, little if any experience with government financial management, no understanding of accounting and budgeting practices. We were training them to enter transactions that had been recorded on paper, using the third version of a chart of accounts that Kosovo had developed since September in 1999. The reason they'd been through three different chart of accounts was the Access system was growing and growing and growing, and at some point they would run out of accounts they could use. They had to redevelop the chart of accounts to record more data. So in our case, we walked in with a chart of accounts that was another variation of the chart of accounts, and another variation of the chart of accounts coding blocks. So we had to teach them a fourth version and teach them how to record transactions from transactions that were written, for the majority, in English, and for the majority, incorrectly.

As it turned out, 26 days after I arrived we were able to produce the financial statements and the donor reports for all the different donors from a period beginning January 1st and ending May 31st for the entire entity of Kosovo. That included the transactions that were recorded at the

ministry level and at the municipal level, and by the public sector entities such as the utilities and transportation.

So in 26 days we configured the system five times, trained the staff, recorded all the transactions, went back and realized we had a 45 percent error rate based on the fact that the paper transactions were wrong, reversed those entries that were incorrect and corrected them, ran a very quick internal audit, and then produced reports for the entire entity. So when we said we had an urgent speed requirement, that's not an exaggeration.

The system that was implemented is a limited system. This is not the "every single button is turned on and every parameter has been configured system" that can do whatever we'd like it to do and that we can just extend immediately out to every ministry and every municipality. The system that was put in place was put in place in order to solve a very urgent problem. Yet, it is a system that is transparent, can be audited, provides accounting and financial management control, and can produce reports so that we can tell the donors what's being done with their money. We can even run some management inquiries on the data.

That system is now being extended, and during 2001 we're going to translate the system into both Albanian and Serbian, which is in the Cyrillic alphabet, so that any user can access the system in any one of the three official languages of Kosovo. With one general ledger and one set of accounting books, any person can access the system in either English, Albanian or Serbian, all at the same time.

We're also going to take the system that's at the Central Fiscal Authority and extend it to all the different ministries and to the municipalities, both by their wide area network and by the Internet. We're going to add entire modules to record in detail the revenues of the country, to manage the procurement function, to manage the assets. We're going to produce the printed facts and electronic forms that they will likely be using so that they can engage in slightly more facilitated business from the procurement side, and also produce invoices and receipts for any organization that has to pay something to the government.

We're also going to make certain that all the users are trained in the language of their choice and that all the documentation that they use in training and that they access on the system will be in their language of choice as well.

We're also taking all the reports available from the system, including reports that are requested specifically by individual donors, that we believe will be useful to outside parties and to internal users, and we're putting them onto the Internet. Most likely they will first be available on the Central Fiscal Authority's Web site. As Alan indicated, you can't have 300 donors calling on a weekly basis to ask, "What's the status of the budget or the funds that I've provided to your entity?" especially if you only have 12 reporting staff. So the Central Fiscal Authority has already taken one step to getting reports onto the Web. We're simply going to make them real-time, so that any third party that is authorized to do so will be able to go onto the Web site, run a report and get data directly out of the system at the exact time the last transaction is recorded. That's the status of your budget. And of course we'll be running 24/7.

During 2002 we're going to expand the system. If you look at a country or you look at an independent entity you see that it has multiple levels of government. You have public sector entities that are not the ministries and you have the municipalities such as your utilities and, of course, you have your line ministries. One chart of accounts will not serve all of those organizations. It is likely that the Central Fiscal Authority would like to see transactions recorded at a summary level of detail. And I suspect you're all familiar with the idea of taking a detailed chart of accounts and collapsing it into a central chart of accounts. Well, that's what will be going on in Kosovo.

And one issue that we've addressed is that we've used what is called the FreeBalance FIS Gateway, which is the FreeBalance Financial Information Strategy Gateway in our consolidator module in order to enable other applications such as ORACLE Financials, SAP, American Management Systems, PeopleSoft and so on, to use their applications at any one of the departments. This way that their data can be collected by the individual department or ministry or municipality and passed onto the Central Fiscal Authority and consolidated with all the inter-entity transactions eliminated. One of the reasons we're doing that is we see Microsoft in the news, and we realize that they get in trouble for antitrust problems. We do not want to have a monopoly in Kosovo. We have sold a country-wide site license to Kosovo. This means that any public sector entity, be that a ministry, a municipality, a utility, a university, a high school, a local police department, has unlimited access to our system within Kosovo. Given that case, if our system that consolidated all the data only accepted transactions from another FreeBalance system, we would thereby have a de facto monopoly. And to address this concern, we've ensured that we've used the government of Canada's standard transaction-passing format called the FIS, or Financial Information Strategy format. Thereby, any vendor that sells financial systems to the government of Canada will also be able to provide financial systems that plug into the government of Kosovo, assuming that it becomes a sovereign entity and has a right to be called the government of Kosovo.

After we have the consolidator function in place, any one of the ministries or municipalities that can demonstrate the technical wherewithal, the functional ability and the interest will be able to establish its own financial system using its own chart of accounts. And as long as that chart of accounts supports the core chart of accounts of Kosovo, they will be able to record their transactions in any level of detail they wish, and pass them onto the Central Fiscal Authority for consolidation and for elimination of inter-entity transactions.

After that, and in part at the same time, we'll be taking the e-government FreeBalance applications and putting them on the front of this system such that Kosovo can interact with constituents, enterprise and other governments directly via the Internet. The system we're using now, although it will be running on the Internet and on their Web, it is not effectively doing e-government other than providing reports. There is a lot more interaction than asking for information. Clearly, people would like to enter into transactions on the Internet. So we are providing Kosovo with those applications as well, such that they run on the FreeBalance e-government platform. Then they can engage in granting, licensing, permitting, loaning, procurement and regulation via the Internet.

This is Kosovo's system today. The system has an appropriation, budgeting, commitment obligation, expenditure, general ledger, an entire system of control including security and chart of

account management. It also has something called FreeBalance Powerplay which is for executive reporting purposes. By the end of 2002, the system will additionally have an asset management system, a purchasing function, revenue control, forms generation, and a gateway to pass data in and out of the consolidated system at Central Fiscal Authority. It will be running on the Internet interacting via e-government function to do management of grants, licenses, loans, permits, contracts and so forth.

I can tell from the looks on your faces this sounds as though it is relatively straightforward. And the truth of the matter is it is a lot more straightforward to do this in a place like Kosovo, or in East Timor which was also listed in the heading of our presentation this morning. And the reason this is the case is that these places are starting with absolutely nothing. It is relatively easy to give someone an application out of the box, designed for government, if they are a government and they have no prior conceived notion of how they might want to go about running the government. And if your system supports best practices, it is relatively easy to give an organization best practices right out of the box. It is another matter altogether to take an organization that has been up and running for 300 years and ask them to throw out all of their noncompliant requirements and noncompliant processes and procedures and ask them to adopt best practices. So the system must be flexible to do that.

Our system, FreeBalance Financials, is running in over 80 different government departments in North America. It is also running in schools, in universities, states, municipalities and hospitals. And all of those organizations are using the exact same source code. There is no customization whatsoever. So the system is designed to be flexible to allow for different processes and procedures, different approaches to managing an organization and different organization types so long as they are public sector. There are no private sector organizations using FreeBalance Financials to manage their financial system or their accounting except FreeBalance, Inc., because we built the system. And we are in fact going to ditch it very soon, because as an organization that's working in the private sector, the system is not designed to be used by an organization such as ours. We have actually started looking at using one of our competitor's systems that was designed originally for private sector entities.

If you would like to see our system we'd be very happy to show it to you in English, French or Spanish. We would present it here, but unfortunately because of the size of the screens, those of you sitting in the back few rows would not be unable to see it. So it would be easier for you and for us to simply find me or perhaps Alan or my colleague Todd Hay, and we'll be happy to give you a demonstration of the system via the laptop or the Internet. Thank you for your time.

RONALD MASON (Honduras): I work for USAID in Honduras. I have four questions that I think you can answer in a relatively short time, although the first of my questions is a multipart. My first question deals with the language aspects. Did you initially develop or translate the commands into Serbian or Albanian? Secondly, why in the future would you be translating into two alphabets? I am familiar with the Yugoslav education system, and people are educated to read both alphabets equally well. Third, what kind of translation technique did you use to translate the commands from English or Spanish or whatever into the local language?

And the next question, how did you apply the system to the multiple levels of government in the beginning? I can understand how you might in the future have different stand-alone systems for the different levels of government, but in the beginning how did you address that issue?

My third question: How big was the network with which you worked? How many users were involved in using the network?

My last question is: What was the total fee for the first phase of your work? You don't have to answer this last one.

ALAN PEARSON (United States): Oh, we'll answer it. This is all in the interest of transparency. On the language question, particularly the Serbian and Albanian, it is not an issue of training or education or anything, it is simply an issue of policy. It is the UN's policy that there will be three languages in Kosovo—that is Albanian, Serbian and English. At one time, there was even a press for Turkish to be recognized as an official language. Consequently, we are required by law to produce everything in the three languages. If you look at our Web site you will see that there is always English and Albanian, and some Serbian. The difficulty with Serbian, of course, is the translation—the volume of translation at this point.

On the multiple levels of government, in the beginning, I think we made it clear that it was run by a transfer system and the lower tiers of government actually process their individual payment instructions and expenditure activity through the central system. The issue here is one of local government, self-government, autonomy, driven very much by the European Union and the Council of Europe Charter on Local Self Government to diversify and decentralize. This is the issue here and that's what Grice was talking about in terms of extending it to having interaction with systems that are selected independently of FreeBalance.

On the fees, I forget what it was in total, but it was below \$30,000.

GRICE MULLIGAN (United States): This system that's in place as it stands, when we implemented this system for the CFA, as Alan noted, was about \$30,000. It was essentially a free license for the application and after a free license for the application it was nothing more than consulting services. Our consulting services were offered at a reduced rate to the UN.

Your question about translation: The system lends itself to translation. Because we have many clients in Canada, the system must run simultaneously in English and French. So we designed the system from scratch to support multiple languages concurrently, such that there is a data dictionary or a data terms table that has every term that will ever show up on the screen, whether it is a caption, an error message or an indicator.

The price of this system, when it is extended to all municipalities, translated and implemented, including all the training, implementation, networking and so on, is a little under \$2.5 million Canadian, which is about \$1.7 or \$1.8 million US. It is our expectation that this system implemented across all levels of government, with unlimited site license, will be slightly under \$5 million Canadian, about \$3.5 million US.

RICHARD LAYTON (Honduras): Yesterday we heard quite a bit about different systems and how they are being set up. My biggest concern with designing a system and implementing the system is its sustainability, meaning the people who will maintain the system after you all leave. How will you guarantee that?

GRICE MULLIGAN (United States): First of all, we use one source code for our applications, so there is no customization. Thereby, our other 85 to 90 clients around the world interact through our user group community to tell us what they would like. I'm also responsible for interacting with the International Monetary Fund, the World Bank, NASACT and several other organizations that tend to determine or direct the international accounting standards, the GFS requirements and so on. So as requirements change globally for data collection, data recording and data management, we are always updating that centralized source code, and we will be providing the updated source code on a regular basis to our local counterpart in Kosovo. We have a local firm that provides what we call first-line support. That first-line support is of course in the local languages which would be English, Albanian and Serbian. They modify the application to localize it, to maintain all the translation for the local client. This is the way we do business around the world. We are currently working in East Timor. East Timor has, believe it or not, for 800,000 people, six official languages. So those organizations that are going to be using FreeBalance in East Timor will be using the application in Portuguese, in Bahasa, which is an Indonesian language, English and possibly several other languages. We will have a local firm that maintains the translation, provides the hotline or telephone support and onsite support, and we, as the manufacturer, the vendor of the solution, will maintain the source code and provide them with the extended functionality and of course the upgrades as technology continues to develop.

RICHARD LAYTON (Honduras): I sincerely appreciate your answer, but I don't think it focused on what my question was all about. My question is really about keeping the system operational within a government that will change. How can you guarantee that that government will have enough budget and will retain the people you have trained in the operations of the system? I've seen too many systems being changed constantly. I happen to work in a country now that has five to seven systems being developed, none of which are integrated, even though they are all called integrated. Half of the people that operate them no longer know how to operate them. So when I say sustainability, I'm saying you develop a fine system, you put it into operation, you train the people, and it lasts six months. After that, what? Now do you get my question? How do you guarantee sustainability of the operations of the system? You can keep upgrading it as needed, but if you don't have trained people that can really keep it operating the way you originally designed it, the system no longer exists.

GRICE MULLIGAN (United States): There are several issues involved in answering your question. Our local counterpart will always offer training for any upgrade of the system and at any time that the end-user organization feels that it is necessary or appropriate to train additional users of the system, that organization should contact our local vendor. He will provide training on whatever current version of the system they are using and on any upgrades as well.

Additionally, we're trying to ensure that at the Central Fiscal Authority and at other levels of government such as the Department of Local Administration, which is essentially responsible for the municipalities, they will have core centers of knowledge about the application. Our application

was not designed from the accountant's perspective, and thereby requires some in-depth knowledge of accounting to keep the system up and running. It was designed originally from the line manager or budget manager's perspective, and thereby was designed to be easy to understand, so that training is not a three- to six- to ten-week process. It is literally a matter of several days, which is how we were able to train folks who didn't speak the language when the system was still running in English. While we did all the data entry for January 1st to May 31st, we were able to train folks who did not speak English to use this application to record the appropriations, the budgets, the commitments, the obligations, the expenditures, the revenues, the journal vouchers, the reversing and correcting entries. They were able to run reports, and get all that done and audited within 26 days.

So the training requirement is not burdensome if there is some understanding of government financial management. Now, in their case, they understood nothing about government financial management and they had to be trained. The reason we're starting the system centrally organized is so that the Central Fiscal Authority will be able to oversee every transaction initially. And all organizations will only be allowed to access the system after they've been trained, and then the Central Fiscal Authority will, on a periodic basis, maybe nightly, be able to review the transactions that have been entered and identify those transactions that appear to be questionable. They can contact the body or the organization that reported those transactions and ask them exactly what they are doing. Thereby, we can disseminate some of the accounting and government financial management expertise that is located initially at Central Fiscal Authority and push it out to the extended regions of the organization so that municipalities that don't have government financial managers or accountants will gradually learn the expertise. And they will not be allowed to have their own independent system until they can demonstrate their ability to manage that system both from a functional accounting perspective as well as a technical perspective.

ALAN PEARSON (United States): I'd like to add a couple of points to that. I think the question of seeking a guarantee that people will still be there is somewhat rhetorical in the sense that I know of no country or government that can guarantee that its employees will still be around. The best that you can say is that out of 125-odd people that were recruited initially to the CFA, there is a good chance quite a few of them will stay around because of the employment situation. My experience also suggests that as people move on, people come in behind them, and they pick up things. Whether the system itself will stay in place I think will be highly dependent on both the government's attitude, which we cannot predict, and the donor's attitude, which I believe we can predict. A number of international donors are funding this effort both in the center and in the regional extensions of it. And under those circumstances there will be a great reluctance for them to finance something to take its place. So I think that once it is started and running we have a fair chance it is going to stay in place for at least a respectable length of time. And given changes in technology and everything else, we don't look at something lasting forever. I mean, things do get replaced. Let's not get confused about that either. So on balance, I would accept the point that you make, but I don't believe it is unique to Kosovo or to any other country. However, I think that Kosovo and its entities are in as good a position as any other place to sustain it and to work with it for its useful life.

GRICE MULLIGAN (United States): To follow up on that point, we have roughly 90 public sector organizations that are using FreeBalance around the world. Of the total customers we've

had as an organization since our inception in 1984, there are only two organizations that have turned off FreeBalance after implementing it. One organization was essentially subsumed into another, and that parent organization had its own system and demanded that this organization use it. The other organization was disbanded by the central government, and therefore the system was turned off as all the people were relocated to different organizations. We have never had an organization simply turn off our system in favor of another system. We have organizations that have been using the same FreeBalance Financial system for 15 years.

Bolivia's Integrated Management and Administrative Modernization System (SIGMA) and its Innovative Electronic Payments Operations

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Enrique Velásquez, Specialist, World Bank/Bolivia ILACO II Project

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Good morning to you all. We're going to show you our Integrated Management and Administrative Modernization System that was developed for the government of Bolivia, actually for the Bolivian public sector institutions. This system summarizes the experiences we have had over the last 10 years as a team working on this project in several Latin American countries. We've had a number of experiences and approaches.

When we returned to Bolivia after eight years, we knew that our country had a system in place since 1990, and this system had produced financial statements over the previous nine years. However, those statements did not reflect what was going on inside government and in the lives of Bolivians. There was a realization that we had to change. But we could not conceive of an approach that would start with the Ministry of the Treasury, and would require local and departmental governments, ministries and other public sector entities to go on sending information on demand to Treasury, so they could complete their reports.

This new approach began with the system's name. We were not just going to call it an information system. We were bringing in management and modernization issues, and we were going to bring about a restructuring of each unit of government. The information and related processes would flow to the Treasury to allow a review of the way their operations were being managed. The new system (SIGMA) is built on the basis of the latest technology, allowing us to work with a single central database. We also have modular development that allows us to put all these modules in place. The modules have an internal structure that is perfectly constructed, and connecting each of the modules does not mean that anything has changed. Instead, everything is enhanced because now transactions will be recorded in real time.

This system began operating last September 2000 with its first module: budgeting. This was the greatest challenge we had to face, because in Bolivia there was the custom of each organization sending its budget requests to Treasury. Treasury would then cut their budget requests without consulting them. What came out of that was a budget that had little to do with the realities faced by these organizations. Our module combines two specific functions: a programmed structure that responds to budget methodology, and also the organic structure of each governmental unit. This

leads to some basic tables and benchmarks that help to organize the budget in line with the functions of each ministry and department, as well as each city government.

This is the way the system has been designed, with a focus on its structure and development that includes three levels of government. Ideally the central government allows the departments and municipalities to carry on their functions perfectly, because each of these has been inputting its objectives. This is how we achieved the budget for 2001, which was reviewed and approved by normal channels. It is the second time in Bolivian history that a budget was approved before the fiscal year started. It was approved in the last session of Congress in 2000, and so in January 2001 we started working on the other modules that we will now present.

The other modules were dealt with in this order: expenditures, resources (each of these linked with procurement and asset management), using traditional double-entry accounting and the new Treasury frameworks. The modules operate in a single centralized database at Treasury and are communicated to 25 central governmental units via a fiber optic network. Later on Enrique will explain the technology that we used. So we can see workplace improvements in each one of these units.

At the same time we added the “individual person” module, using databases already installed in each of these units—with all the complexity that this implies—and integrating these with the central database. In the same way we worked with the debt management system, SIGADE, developing and designing its integration with SIGMA.

Now we will demonstrate the system, and explain its objectives and contents. Enrique and I will do this together, which will allow you to see the theory and the specific ways it works in practice. We decided to set up a transactional cycle, with a series of self-checks, starting with the purchase order and ending with the direct payment to the vendor.

We’re going to show you the logic of the system starting with processing of an order. In the procurement process we have a cycle of transactions that is based on the purchase order. That order is also generated for the budgetary reserve record, which we call “budget control.” After the purchase order comes the normal purchasing process, in accord with Bolivian standards, and the selection of the type of purchase. We’ll show you a simple example. The international bid, the national bid, special purchases and direct purchases are the ways that a purchase can be made in Bolivia. Once the type of purchase is chosen, we go on to bidding, the receipt of bids and the awards. When there is an award, the system generates a purchase order or a contract, depending on the amount, and the budgetary commitment is recorded simultaneously with the purchase record.

The fundamental assumption we had when we set up the system was that there would be no accounting experts in the various units. There would be operators with middle school education at best. They needed to be trained with standard methods, using icons for each section that allowed them to record the transaction process. This means that complicated operations to commit the budget and to record accounting entries would be made in an absolutely automatic process.

There had to be clear and concrete definitions of management procedures for each of the ministries: what had been authorized and what units were affected. The system was installed in

289 workplaces, and so it had to be flexible enough to handle each workplace and however many computers were connected to the system in that workplace. And we achieved a paperless process in our government, because things are being done on the computer, with passwords and a record of the exact time each transaction was processed, allowing for complete transparency for all those who review the system.

Now we're going to take a look at the system and the process. I have chosen an efficient example that best fits the small laptop server we have today. You will see how easy it is for us to work with purchase orders. This purchase order module also has a graphic catalog of the goods usually purchased, all of which we borrowed from Argentina; thank you, Oscar Luna. With your donation we saved a lot of time—a process that took six to eight months for you—in cataloging these goods. We jump-started our cataloging and now have about 53,000 items. Using a catalog that already existed, we started out quickly on January 12.

Enrique Velásquez, Specialist, World Bank/Bolivia ILACO II Project

We have just entered the system. You see the standard we are using to list all the documents below. In this case we list the purchase order, and up above we show the actions that can take place with the documents. We have the ability to print any document, insert, delete, change, list or verify information. Now we will create a purchase order.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

You can see that we have to have a massive training effort; it started last June and has involved 1,180 persons. But this training is outside the project proper, something that was done on purpose. We are using the Ministry of the Treasury. The training was provided by an official training center in Bolivia that is under the Comptroller General. That allows us to remain independent from Treasury. At the same time there is a requirement for every employee to obtain a certificate showing that he/she has passed the SIGMA courses. The courses are divided in two parts. There is the concept study and then exclusively the computer applications. And so everyone—bosses, assistant secretaries, accountants, economists, auditors and attorneys—can handle the system with just a minimal knowledge of the way the process is standardized.

Enrique Velásquez, Specialist, World Bank/Bolivia ILACO II Project

This is what we are doing. We identify the entity that produced the purchase order. We identify the kind of expense involved, which is for goods and services. Now we see the programmed structure that links the purchase order with the unit budget, and we list the new items with all the others that we want to purchase. Right now we only want to add a black-leaded pencil, which appears in the catalog we received from Argentina, the amount, the unit price we think applies, and where we found the price. We can add more items if we want to buy more, and so we complete the order.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

At the same time that Enrique verified the information, the budget control record is entered. That is the point at which the system prompts the user to tell him/her whether there are any funds in the budget under that particular program and governmental unit. There's no need to write to the program director to order the pencil, or for the director to reply 10 days later that there are no funds available, or for the paperwork to work its way through the bureaucracy and get checked against departmental goals. The employee knows right away whether funds are available, whether he/she may go ahead with the order, without having to go up the ladder. Here we have independent technical units that work directly with managers.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

Here you can see the budgetary control document, and spaces to show whether the order is screened out, committed, completed and paid. There is also a place to list the related documents that are added as we move towards the actual purchase. Once the purchase orders are formulated from the various units, the procurement process begins; that is, a number of orders for the same item are grouped together to allow for a joint purchase. This is a single purchase order for a small amount.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Once the process is in motion and messages move back and forth, an estimated date for completing the procurement process is added. Along with that, the system shows all the orders in process at that time, allowing the purchase manager to choose the orders that will be included in the procurement process. Enrique is creating an order and setting the procurement process in motion. He just has to push one key, and you can see how simply, rapidly and immediately we do it. And each area director can keep checking on the status of particular orders.

The next step in the process is to request bids for this purchase. At this point there are two options for the system. If the vendor is registered, it can be accessed by industry, by similar kind of activity, or by naming directly. The system has a table that allows for the registration of vendors. These vendors have certain advantages; if they are already cataloged in the system they can be chosen directly at this point. If they are not in the system yet, and someone looking for bidders needs someone in particular, they do not have to be identified at this point. So far we have registered 500 vendors since last January, and that will at least help agencies in their procurement processes.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

Here are two procurement processes. We're going to generate a bidding process from the list below. We'll first choose one of the vendors in the catalog, and then enter other information such as payment terms and bid deadline.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

We're showing you how a normal user would operate this process. We have shown people the conceptual framework already. We have allowed for an infinite number of possible documents. We merely want to show you how it works, knowing well that there's a different way to do it in each country. The point is that, once the system is set up and the parameters defined, you can meet any organizational need that you have allowed for in your plans.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

You can see that we have created two bidding processes. The next step is to announce them to the suppliers who will take part, and later they will submit their bids and we will record them.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Now we place ourselves in the procurement process, and we see that the vendors have submitted their bids, and all of these are recorded in the system. The record includes the conditions specified by each one, so that anyone with access to the SIGMA Web page can see all the bids that were submitted, their prices and the contours of the process. They can then make their particular bid. The demonstration of the two processes gives us a chance to see how the system will produce a comparative table of bids automatically when the bidding process is completed. That comparative table is set up to show how the unit responsible for procurement chooses the items and the vendors. And the selection is transparent: it shows the name and the action immediately. We made sure we took into account previous experiences in this area and the audit trail that was necessary to establish legal compliance and management responsibility for each action taken.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

We are looking at the second vendor, the date the bid was received, the time period that the offer is valid—in this case for 60 days—and the unit price, all of which we will verify later on.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Again, this is an extremely simple example, but the process set up in the system has to be followed in every case. Our time is short, but I think we can go ahead to show you the comparative

table with the various bids. We have two options in setting up the table; we can do it by vendor or by item, depending on which option would be most convenient for the committee that chooses the winning bid. So we have arranged the table by vendor, and all that has to be done now is to make the award.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

This documentation will now go to an evaluating committee, which has been set up at the same time as the selection committee.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

We are still in the procurement process. Now we produce a purchase order. And when we do that we can see that the commitment is also recorded. People had a lot of questions when this system began, but the purchase request and the budget control were working with reference prices. The catalog price is the one that is shown by default, but the operator has the ability to change the price if he/she does not agree with it. The award may be given to the vendor who offers that reference price, or another that is higher or lower. At the time the purchase order is created, the system also updates the budget control record and checks to see whether there is a “commitment quota” available to this governmental unit. The National Treasury under another system module called “financial programming” determines this quota. The quota is determined for each unit, administrative division and type of expenditure, and it provides more certainty about how much each unit will have available to it to meet its obligations when it commits itself to a purchase.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

We can see the procurement process, and all we have to do here is create the document defined above and also the commitment document.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

The document you saw before at the budget control stage is here again at the commitment stage. And you can see a chronology of the entire process as we complete our single purchase. Now what is left is to enter the system to present this purchase order with the voucher generated when the order was sent to the vendor. Now begins the monitoring of the time period that the vendor has for its delivery. Once each vendor is entered in the system the terms and conditions are printed, and the vendor has the option to receive payment by direct deposit to its bank account.

At the very end of the document is the section on sanctions. This shows any instance in which the vendor has contracted with the State for delivery of goods or services and received a purchase order, but then failed to comply, and the resulting sanctions are also listed. Now Bolivian law does not prohibit further contracting with any vendor even when sanctions are leveled against it, but at

least we have a record of this for everyone to see. Government managers have asked us for this record, because up to now they had no idea at all about how the various vendors were complying with their government contracts.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

Here we can see the presentation of a purchase order. At this point the only new data that are entered are the names of those who are monitoring the purchase order, with their I.D. and the place where the order was prepared. The next step would be to print a record of the presentation.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

There are very few papers that need to be signed. One of these is our report, because we are dealing with an external action and the person who prepared the report has to show proof that he/she really prepared it. And we have eliminated the mass of files that once existed in the various government offices, but not in all of them. There are still some ministries that go on downloading hard copies of everything and storing them. They do that by habit, but the day will come when they get tired of amassing so much paperwork, and they will be satisfied to have the information stored in the system where they can access it at any time and go to any part of it, starting from the end of any transaction and going to the beginning or vice versa.

What does all this mean? Once the good has been received at the warehouse or the governmental unit, it is entered in the inventory module as received. And once that is done, the system is ready to handle the corresponding invoice. You see how it is received, and how the vendor's invoice is recorded at the time of receipt. At this point, by special request of the Internal Revenue Service, a series of data is produced from a linkage between the two agencies' databases. In Internal Revenue there are assignment rules, with specific codes and numbering that each vendor must use. We will have continued monitoring, in the beginning at set time intervals but later almost continuously, to verify that these vendor invoices agree with the codes and ranges authorized by Internal Revenue. That explains why this information appears on the invoice.

We record the invoice, and the invoice in turn creates a budgetary record of a completed purchase, and at the same time the corresponding journal entry. There's the payment voucher, the one we showed before, but now we have included all the relevant data. With all the data at hand you can enter the system and see how each transaction is represented. And from this single "consulting" step you see the payment document—in part one we have the vendor, the government department and the individual unit that created the record. Then we have the rest of the data arranged in the way each organization needs them. There are the supporting documents, the vendor beneficiary's data that the vendor is responsible for completing, including the bank account in which the direct deposit will be made. We have the budget categories, a summary of the transaction, the monetary amounts, whatever is to be withheld; in short all details of the transaction. These documents can be augmented under certain conditions, for the kind of expenditure and the particular financing entity. This last information allows the Treasury to schedule the related financing and arrange the documents needed for effecting payment.

After recording the budget entries, we can see the journal entry that is created at the time the vendor's invoice is recorded. Here you can see that the system arranges all the entries in chronological order. It also creates additional information for the accounting ledgers and for the accounting entry itself. In these operations there is no need for the various units to have a trained accountant to create the entries. We do need, though, for the person who acts as accountant to know how to interpret the information and use the information generated in these reports to make decisions about organizational policy and strategy.

In addition—here we have something totally identified in Bolivia from the time the new law took effect in 1990—there is scheduling of operations. This was once a hit-and-miss affair in the management process because you didn't work with the budgeted amounts and no one referred to them when they spent funds. But from that time on we had the mission to deliver results-oriented management information, because operations are no longer in conflict with each other. Now management can be evaluated and its performance measured.

We have completed two stages of purchasing and invoicing. Now we will cover briefly the system of Treasury, and mention the single Treasury account. What is the single Treasury account? It is a single open account at the Central Bank, into which all the State's resources are deposited, whether these belong properly to the National Treasury, whether they came from donations, from outside financing, from user fees collected by the various agencies. These resources are individualized under a system of sub-accounts, the same way as a typical bank with its own client portfolio might function.

So now Treasury has become such a bank, and it uses its own sub-accounts to identify its clients, which are the various State entities. And it is a rock-solid policy of the country, from the president on through the cabinet, that is driving this—in spite of all the loud complaints raised by administrative directors last January when the president and the ministers announced that no one could buy coffee or stationery or take a trip. The crisis passed and we have used the single account satisfactorily for three months now. It hasn't been implemented everywhere but it is a big step toward achieving a closure of the individual accounts that each ministry used to have.

We got to the point where we had nearly 2,000 accounts for the central government and more than 5,000 in all of the public sector. We don't pretend that these will turn into a single account overnight, but we are achieving a slow reduction by implementing the single Treasury account.

What are the advantages of a single Treasury account? This will provide us a more rational handling of public funds, a more manageable and transparent role for the State, and an easy way for citizens to see on our Web page the way the nation's resources are being used. We're going to improve the laborious and thankless scheduling task that Treasury has to undertake, where there is never sufficient liquidity to meet all the nation's obligations. And something else that means a lot to us: we will succeed in having vendors and contractors receive their payments in a sure and timely way, which will reduce the surcharges the vendors add on for late payments and lead to a total and real price competition. In that way Treasury will have available to it resources not already committed which it can use for unforeseen contingencies, such as the deficit crisis that is affecting Bolivia right now.

There are two stages in prioritizing payments. Each of the governmental units along with Treasury is responsible for making their payments to vendors in absolutely independent ways. The first kind of criticism we received when we started was: How can it be that my own resources are going into Treasury to be lost? This system allows Treasury to prioritize the payments, using its own resources to order them. Each governmental unit creates its own payment schedule as well. The payment scheduling has two stages. We see a selection process in the system that leads to the creation of an automatic file and the sending of this file to the bank via the system's own "fingerprint." As we connect to the system you will observe the way the payments are chosen. The process that used to last three to four days and produced check payments for the vendors after 15-20 days, now only takes 10 minutes, and in just a half hour a pay order is issued by the General Treasury and reaches the vendor's bank account.

This payment selection process allows us to organize the documentation in different ways and formats. We will demonstrate one way to organize it into subgroups, from which the files are created, and then sent to the bank.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

All we have to do, as you see, is to choose the file from which we will prioritize the payments. Then we state what kind of documents we want to include, in this case the budget document and the government entity. And now we choose for the payment source to go by financing body, kind of expenditure, expiration date, payment from a system with enough resources, etc. This is just one of the combinations we can create at this stage.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

Once we choose the fields to include in our form, the system puts the documents in order and allows us to view them one by one. If a given manager says, "Here's one I don't need to pay right away, this one can wait," that manager can check once again to see the purchasing process, the bid that was submitted, and can decide whether payment should be made at that point or whether the payment process should change. There is also a beneficiary's record in the system that we could visit.

And then the vendors themselves can also access the Web page on the Internet to see the status of their payment, without having to go to one of the counters at the Ministry of the Treasury to ask in person, to ask whether or not they're going to pay. The vendors can find their payment status on the Web page.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

That information can be found in the Web page *sigma.gov.bo*. The beneficiary says what documents it wants to see. It accesses the Web page using its PIN, and will see just the list of its own transactions with the government.

Carmen Zuleta, Director, World Bank/Bolivia ILACO II Project

We have just taken you as quickly as we can through the complete cycle from the request for bids to the payment. All that is left is for Enrique to tell you in technical terms how we set up the system and what the communication structure is today.

Enrique Velázquez, Specialist, World Bank/Bolivia ILACO II Project

We have basically a private fiber optic network that links the public sector institutions. The whole thing is protected by a pair of moderators. There is a single server, from ORACLE, a Web applications server. What that does for us is this: in the terminals of each ministry we only need Netscape-style browsers, nothing else. Information entry is done with applications servers. The Web site access is done with Web-tv, also from ORACLE, and this allows access for users as well as beneficiaries outside the system. It is all protected by a firewall and by a number of procedures that would take too long for me to explain today. That's basically the way it's working right now. Thank you very much.

Cyber Money Laundering

Alan Abel, PricewaterhouseCoopers

Cyber money laundering—actually I'm never quite sure whether to put the dash between cyber and money, or the dash between money and laundering. So today I thought I would just call this cybermoneylaundering the same way we spell PricewaterhouseCoopers. We sort of run all the letters together.

Cybermoneylaundering is a very new concept. We've only been dealing with money laundering, approaching it as a serious global financial problem, financial crime, for 12 to 15 years now in terms of governments trying to do something about the problem.

So cybermoneylaundering is very, very new. We're still not quite sure what it is, what all the risks are and where we're going, because Internet technology and other electronic technology, stored-value technologies are changing so quickly. But we do know what some of the risks are, what some of the abuses already have been. Governments, meaning regulators and law enforcement, are pretty worried about what is happening right now, about how large volumes of money or funds are being laundered today throughout the national and global financial services centers. They are struggling to figure out what to do with it. Cyber issues, of course, present a whole broad range of legal regulatory issues and technological challenges.

Today, in the brief time that we have to talk about these things, I'm going to lay all this on you and see what you think. We'll have some time for you to ask questions and I'll try to answer them as best as I can.

I think it is important to start off with a brief introduction about money laundering, what it is and how money launderers work, so that you can see where I'm going with this as we get to the electronic media—cyber space. I think that will help you understand better what the issues are and what the potential abuses are. It will help you understand how financial criminals can exploit these new technologies, products and services that are offered by bank, non-bank financial institutions and a whole string or proliferation of the new dot-coms that are popping up all over the place. Then I'll go quickly into what some of the premises are from a legal and regulatory standpoint and what some of the hot global regulatory issues are in this vein, particularly knowyourcustomer issues (I'll tell you what that means in a few minutes) and privacy issues (I think you already know what that means). Then I'll talk briefly about the three most important financial, electronic products that exist today—namely electronic cash, Internet gaming and electronic banking. Of course there is a lot of conversions going on among these products and businesses, but I think these are the three most important veins to follow. Then we'll talk quickly about what I think are the salient challenges with which regulators and law enforcement agents have to be able to cope, the

vulnerabilities and the criminal opportunities and activities presented by these new technologies. Then we'll have some questions.

A quick definition of money laundering is the process of willfully concealing the existence, the illegal source or the illegal use of proceeds and then disguising them as legitimate. This is conventionally made up of three basic illegal business processes which are conventionally referred to as placement, which is about placing illicit proceeds into the system; layering, which is about creating obfuscating audit trails through a series of well-designed, planned and executed transactions; and then integration—once money is laundered, how do you get it back into an economy? Let me go through these quickly.

Placement means having to get rid of, very quickly, very nicely, lots of illicit proceeds that are generated by some unfortunate illegal activity. The one most people tend to focus on is drug and drug trafficking, drug consumption sales, because that has been and we believe continues to be the most important source of illicit proceeds today to get laundered. A money launderer has to quickly get rid of large amounts of proceeds often in small denominations, usually in currency. Now there are opportunities to generate proceeds using stored-value products like a telephone card or some other stored-value card that can hold more money, other negotiable instruments like money orders, traveler's checks and other small items of high value like jewelry. Then the proceeds must get into the financial system so that then they can be moved around with more dexterity and be able to do the next thing in what we refer to as layering.

Layering means generating layers of transactions designed to obfuscate the audit trail so that by the time you're done you can no longer tell where the proceeds came from, what their origination was, who the source of funds is, what the business purpose was of the original transaction. How might I do this? I might wire-transfer funds electronically from a bank in the United States where I sold the drugs to what is still referred to as a bank secrecy jurisdiction, and then I might move it somewhere else. And if I move it around enough, information regarding the transaction may fall off the records. When that happens, if that is my plan and that's what I'm trying to do, then the money has been laundered.

Now that the money has been laundered, I have a problem. I have to figure out what to do with it. Well, I'm probably going to repatriate it to one of the guys that started the trail, like the guy who sold me the drugs in the first place to sell on the street. But then there are three things I can do with the proceeds, the revenue, the profit. Just like anything else, I can spend it. I can buy stuff. I can invest it. I can buy securities, mutual funds or real estate. I can lend it. Lending is very clever because it is harder to trace. It is much harder to trace proceeds that are loaned. So I can lend it to other people for other purposes and they can pay me back over a period of time.

So that's basically how money laundering works. There is a lot more to it than that. There are many hundreds of techniques, topologies, but I want you to have a good sense of what the core concepts and processes are so that we can move on.

Now, what are the hot, global regulatory issues right now that pertain to our topic about electronic funds? First of all, it is important to recognize that money laundering has become a global business, an illegal business, but global nonetheless. It is very much part of the global

economy. We used to think that funds were just laundered through the conventional, traditional banking system, but now we know that increasingly money gets laundered through what we refer to very broadly as non-bank financial institutions. That can be a securities firm, an investment company around a mutual fund, insurance companies. There is actually a very long list defined by the United States government and the governments of other countries about what a non-bank financial institution is. Increasingly, I find myself using the term omnibus provider of diversified financial services, but of course that takes a lot longer to say than bank, doesn't it?

Also increasingly, the financial services and activities of businesses that could not possibly be confused with financial institutions are also vulnerable like many multinational corporations that have internal or indirect financial services and activities, particularly as they relate to or are connected with international import and export activities.

Another thing that we know is that the money-laundering risks to a business, whether it is a financial institution or not, are enterprise-wide. Some products and services in areas and countries may be very high-risk money laundering, and some may be very low-risk. What is important for a business to do, for senior management to do, is to be able to evaluate what the risks are in order to figure out how to deal with them in order to come up with an effective strategy.

There are many important regulatory issues surrounding money laundering and related financial crime. However, the two that relate squarely to the e-business issues and channels are suspicious activity reporting and "knowyourcustomer." Let me talk quickly about what these are. The words are very accurate; they are what they sound like.

There is generally a trend to leveling requirements for businesses to detect and report suspicious activity to government authorities around the world. In the U.S. right now, because we have so many regulators that regulate different types of bank and non-bank financial institutions, it is tough making that requirement level. So right now, for example, banks in the U.S. and non-banks that are subsidiaries of bank holding companies (yes, this gets complicated) have to report suspicious activity, but a securities broker/dealer that is not part of a bank doesn't have to report suspicious activity. Many of them may voluntarily report, but today there is no legal requirement that they do so. One of the largest insurance companies in the U.S. is a subsidiary of one of the largest bank holding companies in the world. That insurance company has to report suspicious activity, but other insurance companies usually don't have to report. What's tough about that is fraudulent crimes that may or may not relate to money laundering are usually part of the requirement, and there is no type of business that gets more fraudulent claims than an insurance company does. So you can imagine how many reports of suspicious activity that can generate.

Other countries that have a simpler financial regulatory structure, fewer regulators, like the U.K. and increasingly Latin American governments are better able to impose a suspicious activity reporting requirement across all financial services without having to deal in a segmented way with which type of business is which.

Now, "knowyourcustomer" is what it sounds like. In order to protect yourself against money laundering and related financial crime you should know who your customer is. I'm going to tell you what the elements of that are in a second. Fundamentally, you cannot have effective

suspicious activity reporting without an underlying knowyourcustomer program because you don't know what is suspicious and what isn't unless you know something about your customer and what to expect from the financial activity in which your customer engages.

Let's take a closer look at that. I've noticed that among banks in Latin America for example, in Argentina they call them "Cognoce a su cliente" and in Mexico, "Conoces a tu cliente" programs. I don't know why the difference, but the concept tends to be translated directly in most languages now. Knowyourcustomer also means know your employee, know other third parties. As we start talking about the cyber issues here, I think you'll more clearly understand the problems in knowing other third parties who are now able to do business anonymously together over the Internet. How do you know with whom you're dealing? How does one party know the other? I think you can understand how this can very quickly become a challenge for businesses, regulators and law enforcement.

When you're trying to get to knowyourcustomer you have to be able to answer and verify certain basic questions. Do I know who the true beneficial owner is? Who is the real person or business that wants to establish a business relationship with me so that I can then process transactions for that person or business? Do I know what the source of funds is? Do I know what the intended use of funds is? For this business activity that this person or business is proposing, does the pattern of transactions that I think they want to conduct make sense? Am I comfortable with all this? That's really your acid test. Am I really comfortable in doing business with this person, this business, based on what I know? Am I getting good feedback? Is this person being open and transparent with me? Or is it hard for me to extract information? It is about getting yourself comfortable, and it is a very common sense type of process.

Then, do I have the tools and the means to monitor and detect changes in customer activity and trends when I see something that's weird? First of all, will I be able to detect it if I'm a very large financial institution and I conduct millions of transactions a day on behalf of my customers? More than a trillion dollars a day gets wire transferred around the world. That's a lot of money to track. So do I have the means, the ability, to unearth something that's weird and then to take a closer look at it and say, "Hmm, I think this is unusual," or "Gee, I think this is really suspicious, what am I going to do now?"

Now this takes us into the realm of how do I know my customer over the Internet. I think this is a good place to introduce the concept of what is hard law versus soft law versus what is just a good or best practice, because in the realm of money laundering, especially cybermoneylaundering, what constitutes hard law, soft law, is not always so clear. You can't clearly draw a line always and say, "This is clearly a legal requirement or a regulatory rule." If it is not really clear, and I don't take action, am I going to have a regulatory problem down the road or am I going to have a reputational accident if a money laundering scandal is associated with me personally or my business and that shows up on the front page of a newspaper? So is that sort of a soft law, or is that now a best practice? Maybe I don't have any personal exposure if something bad happens, but as a best practice, should I be doing this anyway, or ethically is this the right thing to do?

Privacy issues—well, what about "knowyourcustomer?" That sounds like a pretty transparent, good thing to do. Everybody should know everybody, that kind of makes sense. But privacy is

just the opposite. In concept it is sort of the opposite of transparency. At the same time it is regarded as a basic human right and it varies from country to country. In the U.S. and in Europe and a lot of other places there is a whole lot of new privacy legislation going on. The latest thing to happen in the U.S., starting in January, is the implementation of some new privacy rules under the Gramm-Leach-Bliley Act, Title V, about financial services modernization. We call it GLBA because it is easier to say than Gramm-Leach-Bliley Act, but you shouldn't confuse that with the very arcane word defined in the unabridged dictionary, "gleba," which is a spore-bearing puffball.

Complying with the new privacy regulations is very onerous. It is very expensive, with a lot more risks to manage, a lot of devils in little details and a lot of potential conflicts with other types of knowyourcustomer issues. But on the one hand you've got to think of privacy again as the opposite of transparency. On the other hand, the way these new rules are working out under this new wave of privacy legislation sweeping countries, it gives more credence to "knowyourcustomer," because now you have to knowyourcustomer to understand your customer's privacy rights. So for example in the U.S., a bank has to know whether a customer gives permission, opts in or opts out, to have his or her personal information shared with other entities now referred to as non-affiliated third parties. This goes in many different directions, so I've probably really confused you by now. But privacy is both about anti-transparency in one sense and transparency in another in the way it is being implemented. In the U.S. GLBA is just one of a long list of privacy legislation already existing. When we're dealing with cyber issues, that includes prominently the Electronic Communications Privacy Act which affects e-mail, voice-mail and other telephone things, and the Cable Communications Policy Act which deals with cable subscriber data and a lot of other things.

Let's launch into the financial cyber products, these major product areas or groups of products that are potentially vulnerable to money laundering and related financial crime. Electronic cash, and the definition of electronic cash, is what it sounds like—electronic payment mechanisms that enable consumers to store and redeem financial value. Electronic cash products permit funds transfers between individuals and vendors without necessarily going through financial intermediaries like banks. This is one of the reasons these products are so attractive and develop strong market niches almost overnight. The two primary types of electronic cash are smart card electronic cash, which is storing electronic value on a card, and PC online e-cash which is basically storing value on a computer.

Of course there are some good examples of not-so-smart cards or even stupid cards like a telephone card. Technically that's a smart card but it's not that smart. There is not that much information on it. You store value, you stick it in a telephone, it uses up value and that's the end of the life of that stored value product. Or a subway card or a bus card whenever some municipality decides to go electronic, that technically is a stored value product. And there are debit cards. Cards are getting smarter and smarter because now you can store all kinds of things on them, including lots of personal information. You could almost store your whole life on a smart card. I don't think that would be very smart.

Online person-to-person payment services are where you transfer value from credit cards and bank accounts. An example that everyone is pretty familiar with right now is just dialing up over the Internet to some merchant. I don't want to mention any names today, but I think you all know

what the more popular ones are that people are using to do online shopping. They all have their electronic shopping carts and you zip around from page to page and find what you want. You read about what you want and then you go to check out and then they ask for your credit card number or in some cases your bank account, wherever you want to charge it, and there you go.

Electronic gift certificates—I bought my first one just a few weeks ago. There was a baby in the not-so-immediate family and I got an e-mail that the baby was registered at some business whose name I forget. I thought, “Isn’t that interesting.” I know when people get married sometimes they register a pattern in china or flatware or something at a department store. And somebody can either call on the phone or log in on the Internet and find the pattern and buy something that’s on a list under the pattern, but I never heard about anybody doing that with babies before. Anyway, this baby got registered at this online store. When I went through the list of stuff that no one else had bought yet, I thought, “Well, there is nothing here I really would like to get this baby, so I’ll just buy an electronic gift certificate.” Then the proud parents can buy what they want with it later on. So that’s what an electronic gift certificate is. Now there are online services where you can buy a Web certificate that might be good anywhere on the Web or anywhere with several hundred or several thousand electronic businesses on the Web and you can set up what is called an e-account.

Now we are seeing, especially during the past year, a new wave of Internet-based payment transfer services where you can get an instantaneous money transfer. You don’t have to worry about checks anymore. You dial up and say, “Here is my credit card number. I want you to transfer funds to so and so. Here is the e-mail address.” A number of these services increasingly offer this also to palm products, palm organizers and Internet-enabled mobile phones.

Internet gaming is the next product. It is Web-based casino gambling, sports betting, lottery operations. Just four years ago, 1997, we knew about 12 Internet gaming Web sites, but as recently as seven or eight months ago there were 700 that we know about, probably some more, all over the world. We don’t always know where they are, where they’re coming from, what they’re doing. There is a clear lack of regulation on Internet gaming nationally and internationally, because we don’t really know how to regulate it, because there are a lot of new issues here. We know that Internet gaming is licensed in a number of countries, especially Antigua, Australia, Austria, Bahamas, Belize, Costa Rica, Dominica, etc., etc. And then there are some differences about what licensing means in different jurisdictions. Is this a license just to conduct business generally? Or is there a specific license for Internet gaming involved? Is operating a casino licensed? Is it legal? Is it licensed here? Versus Internet gaming, how is it different? In the U.S. there are only two states that really license brick and mortar gaming. They are Nevada and New Jersey and a number of tribal authorities increasingly have jurisdiction to operate casinos. And then there are riverboats and card clubs. You can get on a cruise ship and you can cruise outside of the U.S. and you can gamble there. And then there is everywhere else in the world. But these are the issues and the differences that exist.

What are the money laundering vulnerabilities of Internet gaming? Oh, good heavens. There are lots. First of all, we don’t know where it is. We don’t always know where the server is based. What happens if the Web site and the gambler are in cahoots or they are the same person? That’s a great way to launder money. I gamble with myself through another Web site. Where do the funds

go? How do I withdraw the funds or access the funds? Internet gaming is not like walking into a casino in Las Vegas or Aruba where there are cameras everywhere watching what you're doing and there are records kept of when you buy chips and you're always being watched and followed and there are people watching the games. All the blackjack dealers and roulette workers are licensed and watched and they play by the rules. There are very tight controls. Over the Internet you don't even know if the game is a real game or if it is rigged or which way it goes. What a great way to lose money if you've got time to play. It is a whole different world.

Let's move on to electronic banking—your basic Internet financial products, e-banking products today. First of all they are offered as part of products of consumer and corporate bank accounts. There are of course online brokerage services and as you know it is very easy to open a mutual fund, money market fund, over the Internet now. Retail currency exchange is a growing product, insurance products, credit products, a whole host of aggregation services. I put my money together here, move it over there and so on. And everything is done using your business-to-business or business-to-consumer protocols.

The challenges here are: Is it harder to keep records? What are the record-keeping requirements in electronic banking versus conventional, physical banking? What kind of account-opening records does one get, maintain, on opening an account over the Internet? It's certainly harder to know my customer when I'm never going to meet this person. It's all happening over the Internet. There are controls, there are things that I can do—verification and follow up, collecting documentation. There are records I can keep and should keep, but it's not always clear what the rules are now in this new environment from a regulatory standpoint. With global Internet banking, where do I keep the records and how quickly can I retrieve them? If law enforcement in one country says I need to produce the records in 48 hours, can I do this? In what level of detail are the records kept? What is their integrity? How do I audit the records? How do I verify identification? I think you've all heard of the concept of identity theft where it is possible to steal somebody's source identity records like Social Security numbers and so on. How do I verify? What kind of due diligence do I need to do to compensate doing business over the Internet to demonstrate that I have good controls? How long do I keep records? What are my reporting requirements? All this stuff isn't very well defined in most places yet.

Of course major regulatory challenges, for businesses and then for regulators, is the pervasive global transfer power inherent in electronic banking. Internet means automatically crossing borders, operating in a space of multiple jurisdictions. There is the challenge of dealing with the lack of reasonable limits on value that can be held or transferred over a unit of time. It is not always clear who has regulatory jurisdiction. Actually it is usually not clear who has regulatory jurisdiction or law enforcement jurisdiction over cyber space. Our conventional legal and regulatory frameworks focus on geographical and financial system borders and not cyber space borders. Going back to suspicious activity, it is difficult to know over the Internet because it is more difficult to know your customer and third party. It is more difficult to anticipate suspicious activity, to profile the expectation of activity to then know if what happens next is suspicious or not.

These are all wonderful, exciting technologies, these e-technologies. They are great for consumers because they are fast. They tend to be secure, or at least security has gotten much

better. They can be anonymous, back to privacy. But those same virtues of e-banking, e-business, are also good news for criminals for the same reasons.

National privacy laws can hinder because they tend to be inconsistent and there are restrictions on data sharing, for example with Social Security numbers. As a result, it is much harder in the e-commerce environment for third parties to know each other and for businesses to be able to identify and relate to each other. There is very little international law, even soft law, right now. But just for your own information, the intergovernmental organizations that are exploring these issues about cybermoneylaundering vulnerabilities are the OECD Financial Action Task Force, the Caribbean Financial Action Task Force, the Offshore Group of Banking Supervisors and also the Ball Committee on Bank and Supervision. They are trying to improve their regulator examiner checklists to define and check out the licensing requirements. How do onsite inspections work? How do you find them? Are they allowed? And there we have it.

Thank you for your attention.

The IMF Code of Fiscal Transparency

William Allan, International Monetary Fund

First of all I'd like to thank the Consortium for the opportunity to speak to this gathering of financial experts drawn from a wide number of countries. I did speak at the Consortium several years ago. It was a much smaller grouping and much more focused on Latin American/Caribbean. That focus is still here, but I see quite a number of other countries that are also represented and that is very good to see. Financial management problems are very common worldwide, so it is marvelous to have this opportunity for a group of people like this to discuss these issues together.

The theme for this year's conference is particularly timely and appropriate. Previous speakers have emphasized the importance of the Internet for transparency. My talk will not be so much on the Internet per se, but of course the fiscal transparency code has benefited greatly from the availability of the Internet and the ease of transmission of this information and the ease of discussing standards among countries. So to that extent, this is going to be a constant with the theme, but the theme of electronic media and sharing of information definitely promotes transparency so the two aspects go very well together.

The IMF has been doing a lot of work in conjunction with other international organizations to promote a number of core standards in transparency. I'm going to talk about fiscal transparency, which is just one of those.

The main themes of the discussion are first of all: Why fiscal transparency? Here I feel that I am talking to the converted. Most of you feel pretty comfortable with the idea of fiscal transparency and it is part and parcel of fiscal management. But that case still needs to be made in some quarters. I'd like to start with that.

Then I want to go on and discuss in detail the structure of the fiscal transparency code with which many of you may be familiar. As a matter of fact, we've just revised the code and the manual, and copies of the revised code have been made available. It is really not very different, but we have focused on a couple of new issues or put more focus on certain issues than in the previous version. I'll discuss those as I go through. You can pick up the revised structure. It is also available on the Internet.

I then want to go on and discuss the progress we've made in implementing the code. The real challenge I think is in this general agreement about the standards that should be applied. The question is how to get different countries to apply them. So this is where our main challenges lie.

Now the work that we're doing on standards and codes is available on the Internet at the Fund's external Web site. That Web site covers fiscal transparency. It also covers work on other

standards and codes such as monetary financial transparency, banking supervision and a variety of other codes. Data dissemination is another important code that's covered by the Fund. And together with the other international organizations, we're working on about 12 standards and codes. On that Web site you can also see the work that is being done with individual countries, which is under the countries studies component. About 80 or so country studies are done on various elements of different codes. Today I'm just going to talk about the fiscal transparency code.

Going on to the question of why transparency, several speakers have commented, notably from Argentina, Bolivia and Chile, about how developing better systems, better information technology systems, has greatly improved transparency and greatly improved efficiency within government. So transparency has clear benefits within government. Transparency has clear benefits within government in that decision makers know what's going on and they are better able to make decisions.

Did I mention that what we're dealing with is much more than promoting the public dimension of transparency, so that the public is also part of this game? So we see transparency as being absolutely necessary for improving efficiency and effectiveness. Clearly, if decision makers don't know what's happening, when it's happening, it is that much more difficult to make decisions. So, in principle, transparency is absolutely essential.

Better information, particularly information available to the public, makes the government more accountable, and in turn that should lead to better fiscal policies. As transparency itself becomes a public good, reinforcement by financial markets will actually demand more transparency. So we're hoping this process of getting more information to the public and building a virtuous cycle will establish a basis for sound fiscal policies.

So fiscal transparency, in the sense that we're promoting it, is seen as a powerful force to take policies of government to the market. And the available evidence indicates that if you do have fiscal transparency you do get sounder fiscal policies. If you don't have fiscal transparency, then policies tend to be rather poor. A number of articles indicate strong relationships between sound fiscal policy and transparency.

One of the things that we're hoping to achieve through the promotion of public fiscal transparency is to improve the database on which we can judge whether transparency improves fiscal policy. Basically, however, I feel a clear case can be made on a priori grounds. It is essential that the public knows what government is doing. If the public does know, then there is enormous pressure placed on the government to conduct sound fiscal policy. So the empirical work that is done is very useful and interesting and it will get more solid as we learn more about how transparent countries actually are.

Of course we recognize that there are limits to fiscal transparency. First, we don't want processes to be so open so that half-baked policies are revealed to the public. Then the policy-making process gets stifled. Clearly there is a due process that is required. It is a difficult judgment to make as to how much information should be available. Most people would agree that there are some limits.

Second, we obviously have to be cautious about providing information that is going to affect the markets. Third information to the public is costly. We would like to provide more information, but there is a limit to the amount of money that you can spend on providing information. Almost certainly the benefits for providing more information greatly outweigh the cost in most countries. We're a long, long way from our limit on the basis of cost effectiveness in most countries. But in some of the more advanced countries, the information provided to the public is already quite large. There is a problem in actually sorting out which is the most relevant information and in getting a clear understanding on the part of the public. In other countries, the less advanced ones, the information is very poor and there is almost certainly benefits from almost any improvement in public information. Where the budget is regarded as a state secret or the public accounts are not freely available, it is clearly essential to improve transparency in those countries.

Transparency is of course a necessary element of any program to improve governance and to limit corruption. It is not the whole answer, but improving fiscal transparency is an important element alongside other programs such as civil service reform, where pay in civil service is too low, where there are too many civil servants. So even if you are more transparent, you don't necessarily get a more efficient government. You need to deal with over-regulation, you need to improve insufficient regulation, you need a serious anti-corruption program. So transparency is one of a number of elements, and it is a very important one, but of course not the only thing that needs to be done.

I want to move on to look at the structure of the code in some detail. The code is based on four general principles and Alan Pearson actually gave them. It was particularly good to see that being used in a country like Kosovo where they are establishing the basis for fiscal transparency right at the outset. I think when we discussed Kosovo it was also said that it is much more difficult to introduce new systems to countries where they've already got established systems. So it would be nice to get to the point where every country looks at fiscal transparency as being one of the key objectives that they're trying to achieve and they judge reforms on the basis of whether or not the fiscal transparency objectives are being met. So the Kosovo example was a very good and encouraging one.

The point about fiscal transparency as we've developed in the Fund is that it is not simply about government accounts or budget documents. It is much, much broader. The data that is produced is of course what we are all seeking, but underlying that is whether the organizations of governments know what they're about and understand their roles and responsibilities clearly. If they don't do that, then the chances are that the data you get is not going to be very good in any case. So the founding principle of the code is that the roles and responsibilities of government should be clear so that governments carrying out noncommercial activities which are fiscal activities should be clearly distinguished from the commercial activities carried out by public enterprises, banking activities carried out by banks and the public sector. And that the government as a whole should be very clearly distinguished from the private sector so that the roles are clearly defined. Only then can you get true fiscal transparency. From the institutions of government the information provided should be comprehensive and should be reliable, and there should be a commitment for that to be made available to the public.

The third principle is that the processes of government should be open. Again, going back to the due process, we don't mean that everybody should know every element of the budget as it happens, but that you should know how the budget is conducted. You should be confident that it is conducted in an open, clear way and that government controls are in place and that the government is seen as being responsible and control processes well established.

The final principle is that, okay, you get government operating, you're providing information, but somebody else should look over government's shoulder. It should be open to independent assurance of integrity. Any data produced should be open to checking.

It is in this fourth principle, this independent assurance of integrity, where we've modified the code most. Of course, the principle remains the same, but we've been concerned in a number of countries that the quality of data itself has not been up to a high standard. So we've added an element to this component of the code saying that the data itself should be subject to objective standards or internationally accepted standards of data quality. I'll discuss those a bit more later. Broadly speaking, the revision of the code is a tightening up and these principles remain the same under the revised code as under the old.

The code basically is organized in a hierarchy. We've got the four general principles, but in the new code there are ten specific principles and about 37 areas of good practice. So what we're doing essentially is defining in operational terms what fiscal transparency means. We're saying that, in these 37 areas, we are defining a practice against which a country can assess itself. And whether or not it attains a good practice it gives the country an idea of whether it is meeting the standards in the code. So this makes it very concrete. People talk about transparency; they use transparency in different ways. I think that means the studies have used a fairly narrow definition of transparency. What we are doing is trying to define it broadly, going well beyond the public accounts domain and covering roles and responsibilities, integrity, the entire spectrum, so that you get a comprehensive review of the degree of transparency in a system.

Now, going into a little more detail on each of these, the first element of the code is the clarity of roles, and this is really the founding principle. The code really defines accountability as well as transparency. So this concerns the functions of government and how these relate to one another.

First of all the boundary between the government sector and the rest of the economy should be clear. In many countries' governments, particularly if we deal with transition economies, there has been a complete lack of clarity between the public and private sectors. So this is of particular importance to those countries that are a market economy. They must ensure that they define what government is and how it relates to the private sector. Now, we're not saying at all that the government shouldn't be involved in private sector activities. Of course we probably largely believe that it shouldn't, but if a particular country does, what we're saying is that it should be transparent about it. It should define what it is doing. We're not saying what it should be doing in a policy sense.

The second level is within government you should define clearly the roles of the different branches of government and the different levels of government. Again, defining responsibilities between federal and sub-national governments is particularly important for a number of countries.

If you don't define those roles clearly, you run the problem of having the macroeconomic responsibilities being shifted from a central government down to the lower levels of government without a clear mandate being given or a clear financial cover being given for that mandate. This is often an area of confusion in many countries where it is not entirely clear what central government does versus the sub-national levels of government. So it is quite difficult to establish clear responsibilities for fiscal action.

Many countries have so-called extra-budgetary funds which may be set under a separate law, then may or may not be presented with the budget. What the fiscal code says is that if you do have such activities, the mechanism for managing them should be made clear. And the overall fiscal activity covered by those funds should be presented in the budget. There should be a clear picture of what fiscal activity is undertaken by all funds of government. And it's not just simply what you choose to define as the budget. Again, in a policy sense, the preferred solution would be to get rid of as many extra-budgetary activities as possible, but the code does not take a position on that. It simply says that you should be transparent about what you're doing.

A thorny issue in many, many countries is what fiscal activities are carried out by general government proper, and how many of those are passed on to the broader balance sheet of the public sector by asking the central bank to issue credits more easily, by asking public financial institutions to carry out some directed lending or lending below market rates or asking non-financial public enterprises to carry out social obligations without getting compensation from the government. Those sorts of activities we label as quasi-fiscal, and this is a particularly difficult one to tackle. I'll talk later about the reforms on the accounting and government finance statistics. Neither of those actually tackle this issue very clearly, and this is one area where I think the code is particularly important in emphasizing that the government, if it plays around with the broad balance sheet of the public sector, should be clear about what it's doing. The public should be aware of what it is doing. This is one of the areas that governments generally need to reform.

Obviously budget and taxes should have a clear legal basis. In most countries of course you have a legal basis, but it's not always clear. On the budget side there are often ambiguities in the budget law which are exploited through the setting up of extra-budgetary funds and a variety of other mechanisms. The tax laws often allow discretion in implementing and allow exemptions which are not transparent and which are an avenue for corruption. So these are areas that will require a lot of judgment and a lot of detailed examination. This is one of the areas where we are trying to promote clear standards in government.

Finally on this area, governments generally should have clear ethical standards for public servants, and moreover these should be seen to be implemented. Most governments have some form of a standard for declaration of assets and so forth, but many are very weak in implementing those.

The public availability of information—this is both the comprehensiveness of the range of information and a commitment to the timeliness. The information must cover a central government and it should include extra-budgetary activities. Now we're concerned. We would like to say that the fiscal reports should cover general government, that is, all of the central government plus the sub-national levels of government. But in many countries that is not always possible in the same

timeframe. There are different reasons for that. In some cases it is not possible because of administrative weakness. In other cases like the United States, it is not considered appropriate because of the different juridical responsibilities and, while there is a report on consolidated general government, it is done after the event. It is not done contemporaneously. In Australia we've got a particularly good system of reporting on general government on a unified presentation framework which allows both state and federal government to be presented at the time of the budget. But that's quite a high standard. While we would like to see that, that goes into the realm of best practice. What we try to promote in the code is attainable practice. So we focus on central government initially, and where sub-national governments are particularly important, we also emphasize a statement on consolidated general government.

The budget should not be just seen in the context of the annual budget and maybe the best guess of last year's budget. You should have two preceding years so that you get one actual year, one provisional to compare with the budget, and preferably two forecast years to see where the budget is going. Now, most countries can comply with the two preceding years. The two forecast years are probably a bit high for a number of countries.

We ask for all countries to make statements on contingent liabilities. That is, if they issue government guarantees, what liability will the government have? We ask all countries to make some type of statement on exemptions and revenue foregone through tax exemptions which we call tax expenditures, and to at least identify the quasi-fiscal activities that are carried out by the central bank, the public banking sector or public enterprises. We ask all countries to make clear statements on debt and financial assets, recognizing that financial assets are somewhat difficult for many countries, but nonetheless it is pretty important and is to be encouraged.

We are asking countries to say ahead of time when they are going to release fiscal information. This is something that is actually part of our data dissemination standards, but we emphasize this in the fiscal transparency code. It says that government should not only have comprehensive information, they should tell the public when they are going to release that data so that it is released at a particular time and there is no messing around with delaying release of publication.

The open budget preparation—I'll just go through that a bit more quickly. We want the budget process to be clear and to be well understood. And that policy statement should be clearly understood so the budget documents make a clear statement of what fiscal policy objectives are being pursued and we can look beyond the year. Fiscal policy may be very good for this year, but how is it going to appear in the future? What sort of liabilities are you facing from your pension funds? How sustainable is fiscal policy over the long-term? So as countries develop their skills, we are certainly putting more and more pressure on them to try and do the budget in the context of an assessment of how sustainable their policies are. Of course the budget should be related to the macroeconomic parameters that the country faces and should be set in terms of a comprehensive macroeconomic framework.

We encourage countries to look at their budget estimates not just as stand-alone projections, but what do they mean? If certain macroeconomic parameters change, what impact is that likely to have on the budget deficit? If there are a lot of contingent liabilities, what is the likelihood of those contingent liabilities falling due during this fiscal year or next? If there are a lot of quasi-fiscal

activities, are there any likely repercussions either for this budget or for future budgets through deterioration of balance sheets of enterprises?

And going back to the discussion yesterday about adopting better or international standards for accounting, we ask not that those accounting standards be adopted, because many countries are not able to adopt them immediately, but you should have a clear statement of what standard is being applied in your country, and how it relates to international standards. We are encouraging countries to be aware of the IFAC PSC standards, to be aware of the government finance statistics, and if the classification adopted or the accounting standards adopted differs from those, to be aware why they differ or where they differ. At the same time we encourage adoption of international standards.

Government programs should have clearly stated objectives. The fiscal position should be indicated by the overall fiscal balance, by the current balance and by a number of other fiscal indicators that give an idea of the primary balance and so forth. This gives you an idea of what the fiscal position is and allows tracking and monitoring of fiscal policy over time.

That budget execution procedure should be clearly specified so that procurement practices are understood. I think we got very good presentations from both Argentina and Bolivia where the practices were available through the Internet. This is obviously moving towards best practice. Many countries are not going to be able to do that for some time, but at least it should be known what standards are applied for procurement, what standards are applied for public employment and so forth.

Fiscal reporting is an area where the revised code was given rather more emphasis. We have been a bit concerned in a number of countries that fiscal reports are not soundly based on the underlying accounting data. We are getting statements of the end-of-year fiscal position from various countries based on GFS standards but the quality of data is not clear. This lack of emphasis on data quality is one of the main reasons why the code is being revised. We've actually moved a lot of the elements in this part of the old code into the fourth element of the code. So the new fourth element of the code now looks at data quality. It looks at accounting data. Is it derived from audited accounts? Have the final accounts been audited? Is the fiscal report based on the final accounts? What is the margin of error? Has there been a sound reconciliation process? How good is the data in that fiscal report? Budget data, how realistic is it? Does it cover all obligations of government? Are the forecasts of the pension payments based on a sound forecast of obligations? Are the interest payments based on a clear understanding of the debt and a rigorous calculation of what interest actually has to be paid? So this area of fiscal reporting is one to which we're giving a great deal of emphasis.

The independent assurance of integrity—we clearly want watchdog institutions to be alive and well in the countries with which we are dealing. This is one of the areas of weakness in the less-advanced countries and the transition economies. With the fiscal problems that they've had, with the areas that have been cut or not promoted vigorously, the internal and external audit and the statistical mechanisms are not particularly strong. So in this area we examine the existence of a national audit body and how effective it is. We examine the openness of macroeconomic forecast, how reliable these are and whether they are open to an independent expert's scrutiny. We hope to

promote independent groups within a country critically examining the macroeconomic forecast of government. For example, in the United States you've got the CBO that does its own examination of the Office of Management and Budget forecasts. There is a certain political overtone to that, but nonetheless the fact is that an independent body is looking at the forecast of the executive.

In U.K. the national audit body has been asked to produce a review each year of the forecast of government, the basis for the macroeconomic forecast of government. So there are institution mechanisms. In other countries you get independent organizations that produce their own forecast. In Australia the treasury model is available on the Internet and anybody can use it and anybody can make independent forecasts. Canada I think uses a variety of private sector forecasts as the basis for its macroeconomic forecast.

The national statistics office should be technically independent. It should not be under the direction of the government as to how it collects statistics and the timing of publication and any other technical aspect of statistics. On our data dissemination standards we've got the special data dissemination standard and the general data dissemination standard that give a more complex array of standards for national statistics covering the real sector, the monetary sector, the fiscal sector and so forth.

We haven't had too many difficulties in terms of people thinking this is a reasonable set of expectations for countries to fulfill, but in actually trying to promote this we are faced with a number of challenges. The first is that the implementation of a code is very much a voluntary process. We're not insisting that all countries immediately accede to this code and do it. It wouldn't be possible for a start, but quite apart from that it's got to come from within the countries themselves. And so we are encouraging countries to implement it on a voluntary basis. Of course we discussed this within our annual surveillance discussions with each member country.

We recognize that while a number of countries are well able to meet all the standards of the code, most are not. We also recognize that countries will take different times and some will require more assistance than others. We provide technical assistance to countries both in assessing the code and in helping them to implement it. And we do this in conjunction with other international agencies. Ideally the code is something that is not just an IMF code but is something that we work with all international agencies to try and implement.

To help with the voluntary implementation on the Web site that I referred to earlier, there is a manual which explains each element of the code in detail, discusses various good practices and best practices. This is designed to help countries to examine their own systems against the code. We also have a questionnaire. Both the manual and the questionnaire are structured in exactly the same way as the code is so that you can relate each element of the code to a section of the manual. The questionnaire will ask relevant questions that will help countries to conduct a self assessment. Quite a number of countries have already done this and we're fairly encouraged to think that the questionnaire has been helpful and hasn't posed major difficulties.

We do provide technical assistance to those that do need help. So far we have 19 countries. Eighteen are published on the Web. If you look on our Web site you can see those countries that have completed reports. Uruguay is one Latin American country that, at the end of March,

published its Report on Observance of Standards and Codes. I'll talk more about that in a little while.

So we recognize that many member countries can't meet all the requirements of the code. The manual I mentioned earlier proposes taking a subset of the good practices of the manual and establishing a minimum standard. We've actually changed focus a bit in the new manual and we've relabeled it Basic Requirements. Those basic requirements are essentially focused on improving data quality, improving fiscal reporting, so that with this concept we try to focus on what the less advanced countries really have to do as a priority in the first steps of meeting the fiscal transparency code. Again, we provide technical assistance to help countries meet those minimum standards.

The important element is carrying out a self assessment to give a country a benchmark against which it can establish what it needs to do to improve transparency and thereby improve fiscal management. And this benchmark helps to set priorities. It also allows you a continuous review of where this country is heading over time. One of the problems in previous technical assistance (TA) has often been that we do a TA on improving information technology and putting in a treasury system. Then several years later we say, "What happened? How has that improved the country?" If we do a fiscal transparency assessment, if that TA has not helped improve fiscal transparency, one wonders what has been the benefit. So in improving fiscal transparency we can see as an index how far a country has progressed in improving fiscal management. So if it hasn't improved fiscal transparency, then maybe it hasn't been particularly effective.

We of course continue with our traditional technical assistance to help improve budgeting processes, but in that TA we are putting an emphasis on how this technical assistance improves transparency so that we can again set goals which are related to improving fiscal transparency in any TA activity in the fiscal management area.

And the annual Fund discussions and periodic technical consultations with member countries will also help to discuss progress on fiscal transparency. So once a report on standards and codes has been carried out, then each year the IMF mission will discuss with the country the progress that has been made in improving fiscal transparency.

A Report on the Observance of Standards and Codes (ROSC) is becoming the main vehicle being promoted by the Bank and the Fund in promoting transparency. The ROSC consists of two parts. One is an assessment against the code. The ROSC is applied not only to fiscal transparency but in every area of standards and codes that is jointly being conducted by the Bank, the Fund and other international standard-setting bodies. So there are about 12 areas where ROSCs are being promoted. The fiscal ROSC illustrates the general methodology. The first part of the fiscal ROSC is an assessment against each element of the code. Part 1 looks at clarity of roles and responsibilities and makes a fact-based judgment on whether that area of the code is being observed or not. That is then discussed with the authorities and that becomes a public statement of whether or not that element of the code is being achieved.

The second part of the ROSC is a staff commentary in which the Fund and sometimes other agencies suggest priorities for improving fiscal transparency. So the ROSC is prepared, it is

discussed with the authorities, it is reviewed by the IMF, it goes to the IMF board and then it will be available to the Bank board. If the authorities agree, it is then published on the Web site. This thing becomes a public good. It is a statement of how this particular country is perceived as having achieved against the fiscal transparency standard.

As I say, similar procedures are used for all other ROSCs. We've done, as I said, 19. Eighteen of those are on the Web site. Another 32 are underway. So probably by about this time next year we'll have done about a quarter to a third of the Fund membership. It is not a rapid process, and it is resource intensive. This is something that we have to look at to make it more efficient and more rapid. And clearly more participation by member countries will be a goal.

The key issues that we've discovered in going through this process with countries is first of all that fiscal reporting and data quality are very weak in a number of countries. Secondly we've discovered that the range and quality of budget and accounts information is often very narrow, that the full range of fiscal activity is not covered in traditional fiscal reports. The third point is that the transparency code is part of a broad move to improve accounting and standards generally. You heard this yesterday in a talk from Ron Points about the IFAC PSC work. The Fund itself is involved in improving government finance statistics reporting, and these two entities are closely linked to the work of the fiscal transparency code. The fourth point is that these reforms must be owned by the countries themselves. Obviously international community is very keen on pushing these standards very vigorously to achieve a more stable environment in the international financial environment. But it clearly also in the interest of countries themselves to promote fiscal transparency. So until we get that process operating, this is going to be quite difficult to do. This is perhaps where the key challenge lies.

Regarding improving fiscal reporting, we find in many countries that if we look at the monetary data and the fiscal data, these two numbers don't match up. They can be made to match up if you have a nice little line in there, a residual line that nobody knows about and you use as a balancing item. But it basically should be founded on the accounting process where bank records of transactions are reconciled with the government ledgers, and that should flow through to the monetary data, reconciling neatly with your fiscal data. In many, many countries that doesn't happen. We get a statement of fiscal position from a country that purports to be an accurate statement, but it is based either on provisional data or unreconciled data. That is a major concern.

That's a major concern that we have encountered, but fiscal analysts often don't ask that question. The people who are looking at fiscal data need to ask: Is this based on sound data? And often that question is not asked. The statements of deficit by countries are taken as a reasonable statement. There may be some suspicions that it is not accurate, but we should be asking that question. To get good data, it basically isn't a matter of getting a report published on time. We have to be confident that internal audit works, and we have to be confident that the external audit works, so the overall integrity is guaranteed by good watchdog institutions.

Underlying a lot of the work that is being done in fiscal transparency is that cash reporting is just not adequate. The IFAC work as discussed by Ron Points promotes accrual concepts, but it is going to be a long time before those are going to be in place. What the fiscal transparency code does is emphasize a number of key elements that can be built up into an accrual statement, and

ultimately we're moving in the same direction. But we have to move in tandem and we have to be aware of the work that each other is doing.

Among those things that do move towards a better accounting standard and towards an accrual is to improve the range and quality of fiscal information that is provided in the annual accounts. First, there should be a disclosure of contingent liabilities and where guarantees have been invoked, they should be disclosed also. So this should be a standard practice. It is of course emphasized in the accounting standards as a desirable supplementary disclosure. Because contingent liabilities are quite important in a number of countries, we put a great deal of emphasis on that disclosure in the fiscal transparency code.

Secondly, we feel that tax expenditures should be reported. This is something that is not really covered in accounting standards, but where there are a lot of exemptions, where you've got a complex tax law, it is important for the public to know who gets the exemption and what it costs. It is equivalent in many ways to an expenditure. So this should be part and parcel of budget discussion.

Public enterprise reporting is often very weak in many countries. I think actually the Latin American countries are among the best performers in terms of public enterprise reporting. They are probably less good in terms of identifying some of the quasi-fiscal activities that are undertaken by enterprises. So along with public enterprise reporting, you've got to be aware of what type of activity the public enterprise undertakes. If it is undertaking a lot of activity of a fiscal nature, that type of activity should be identified.

Reporting on financial assets of government—again, if you've got good public enterprise reporting, that will help build up your knowledge of the overall financial assets of government. So this is an important step in moving towards an accrual concept of reporting.

In many countries, donor funds are separated from the budget, and are not reported clearly. Often a lot of payments are made outside the accounting system and so you are relying on the donors. This is an area which really needs action by both donors and countries themselves to recognize that the donor funds are creating assets that need to be managed by the government eventually, and that is part and parcel of the overall accounting system. The tendency for donors to create a mini-accounting system to cover only their own transactions should be avoided. They should be supporting a good government accounting system which encompasses their needs as well as the country's needs.

The transparency project is very closely related to the steps being taken in both IFAC PSC and the IMF in revising the government finance statistics. The IFAC PSC, as Ron Points indicated, are giving good technical standards for both cash and accrual basis accounting. Those are very helpful and we're very keen to support those activities. But the bulk of countries fall in between those two spectrums. On the one hand we see the cash basis as being too weak and that we need to get better reporting than cash basis accounting. Full accrual reporting on the other hand is far beyond the achievement of most countries. So the transparency code in many senses is a practical, less rigorous standard which encourages reporting irrespective of the accounting standard used, and the

reporting on a number of things will eventually fit into a full accrual report. So in that we see the two things as being very complementary and moving in the same direction.

Likewise the revision of the GFS is moving towards an accrual basis for reporting fiscal statistics, but that is dependent on the accounts that are being used by the countries. And most countries will continue to use cash basis accounting for some time, so that full implementation of the revised GFS will really require strong moves to get a phased introduction of accrual concept. Again, this is very complementary to the transparency code and to the IFAC PSC work.

Now the transparency code is actually broader than both of those initiatives. Both the IFAC work and the GFS work is fundamentally related to institutional reporting where an institution reports on its financial situation and an institution reports on the fiscal activity that it undertakes. But one of the key issues in fiscal transparency is that public enterprises or public banks may carry out fiscal activities. They may be reporting on the enterprise sector, but it is not captured as part of fiscal activity. So we have to cross those boundaries, and we have to encourage identification of non-commercial activities undertaken by the public sector. So the transparency code in that area covers broader ground than does the IFAC PSC or the GFS work.

Finally, in promoting ownership of the reform process, we encourage all countries to try and look at the fiscal transparency code themselves and to undertake a self assessment to promote this work within their own boundaries, not to wait for the Fund or the Bank or somebody else to do it. The advantage of the Fund and the Bank being involved, of course, is that it does give external credibility to any assessment. The tendency of self assessment is to be a little self-serving, so that's one of the costs of promoting it entirely this way. It is almost certain that international institutions will be involved. It is possible of course to encourage external audits of your own self assessment, to encourage independent analysis, and one would expect that the more advanced countries would move in this direction. They could undertake a self assessment, open it to independent observers who might tell them, "We don't agree with this," and then they could try to modify it. So we scope for a lot of this type of work. So far Australia is perhaps the only country that has adopted this route, and all the others have been conducted so far under the aegis of the Fund and to some extent the Bank.

Fiscal reports—we'd like to see more ownership by individual countries of GFS reporting, and linking that GFS report to the budget and accounts so that when a statement of the fiscal deficit in GFS terms is made, that that can be reconciled with the country's own accounting reports and you can get a clear idea of the validity of that statement. So that making the reconciliation processes transparent is quite an important step that countries can make to make transparency more evident to the rest of the world.

In countries that have really moved ahead on transparency, general reform has been carried out by a unit within government that was solely responsible for promoting reform. In Australia, New Zealand, U.K., all of these countries had units that are given responsibility away from the day-to-day to promote the reform process. In developing countries, my experience has been that you talk to the individuals that are head of treasury, head of budget, and these people are so embroiled in day-to-day work that it is very difficult for them to focus on reform processes. So one avenue, and

again it is a bit of a problem when you've got very few people to spare, is to perhaps think of establishing a unit that is particularly geared to reform.

Finally, the role of the external auditor—national audit offices are already taking on the role of auditing performance in many countries. A logical extension of that part of their mandate that could be seen as reporting on fiscal transparency.

So I'd like to finish now, and thank you for your attention.

World Bank Financial Accounting and Reporting Requirements

Doug Arnold, World Bank

Let me start by telling you that in November I had the opportunity to visit Mexico, the city of Veracruz. It was like a journey to hell. I started by flying to Houston. When we got to Houston there was a storm raging and we couldn't land until we circled the airport a few times. When we landed they told us that there was no plane to take us to Mexico. Finally one was available, and we flew over without any problems until we got to Veracruz. We began to descend and I could see the city out the window. But we didn't land; instead we headed on to Mexico City. We arrived at 4:00 in the morning and I couldn't get to my conference on time.

Why did I tell you that story? Well, it has a lot to do with the World Bank's requirements for financial statements. I want to take a few minutes to explain these requirements. A little before my trip to Mexico I had been in Argentina. I had flown down with LanChile, and I do like to fly. Let me talk a little about the process of flying. Here is the control panel in a Boeing 767. Since the flight attendants knew who I was they invited me to take a look. Now I'm going to ask you some questions and I want you to answer by raising your hands, shouting and explaining your answers.

What are the key instruments we need to fly? The speedometer, the altimeter, the horizontal gauge, the compass, the fuel gauge, the radar—okay, we have a list. Now what do these instruments tell us? They tell us that we're in the air, the direction we're going, the time we will arrive, the measure of safety, the fuel we have for the trip, our relationship to our surroundings, and what is out there beyond our sight line. Now just think what would happen if we didn't have these instruments.

Now I have another question. Is it sufficient just to have them? No, you have to use them. Now this is a harder question, and it has to do with the Bank's financial statement requirements. Does it matter if we are using a large or a small aircraft? You say it doesn't matter? Go back to the instruments again. What do they tell us? Where are we going? When are we arriving? How much fuel are we using? How much is left?

But what does this have to do with my topic this afternoon, with financial information? We can't get anywhere if we don't know where we are going, how fast we are moving, how much fuel we are using and how much is left. It's not enough to have financial information; we have to use it. This is my key point. The lives of the pilot and the passengers depend on the way the pilot uses the instruments. The success of a project and the project manager depend on the indicators produced by the project management information. That leads us to the subject of World Bank reports. It doesn't matter much whether these are just internal World Bank reports, because any institution, just like any flight or any pilot, cannot do without financial information. The success of the project depends on that information.

Here are some key financial indicators, which at the World Bank we call 'PMR.' This is a project management report. Think of it as a snapshot of the project. You could also think of these financial reports as instruments. The reports have three parts: financial information, physical information and procurement information. The reports have two basic features. They compare actual expenditures with planned and budgeted expenditures, and they always measure inputs, results and projected targets. Those are the key success indicators in the project management reports. I understand that some in the audience are already involved in World Bank projects, so you understand this. But if you are not involved in a World Bank project, you're still involved in your own government's projects or some other multilateral agency's projects. The principles apply everywhere.

The success of these management reports required by the World Bank has to do with the system of accounts that is used. In our reports we always want to compare our projected targets with actual outcomes, so we use an account code for the outcomes we expect. We use an account code for the inputs to see whether we're looking at goods or services. And we use another account code for project items used in program activities. That is the comparison we always use in our management reports.

The minimum requirements for a system, for presentation of the reports, are that they should be reliable, timely and relevant. We could take all afternoon to define the concept of timeliness, but really for me it means "whenever accountability is achieved." These reports must have audit trails that allow testing of the information for correctness. Just as with flight instruments, financial statements must be more than numbers on a page. Here are some examples of projects we have seen where management information was not provided but rather funds were wasted. I will mention four examples.

In one agricultural project there were three components budgeted: research, extension and education. But because the financial reports were not done, the funds were spent in only one of the three areas. So the project was completely changed. It turned into a research project that did not reach the farmers because all the funds were spent on the research component. They didn't know what they were doing because they didn't provide the information. They did old-fashioned accounting and measured only inputs.

Another example comes from an education project in which people wanted to print new textbooks and distribute them to students. What happened? The guy in charge of the warehouse knew just what all young folks do, how they just ruin books. So he kept them in the warehouse. And since no one had any information about the textbook distribution, they stayed there. We have seen decentralized projects in which funds have to be disbursed from the central government to states or cities. What happens as a result of poor financial information is that the central government ends up short of funds, or one part of the country ends up short of funds and doing nothing while in another section no one knows anything about it.

In the World Bank we call these "first generation project management reports." I don't want to bore you with details. Not all of you are interested in Bank projects. But there are 11 special reports we have done. One is titled *Sources and Uses of Project Funds* and it explains how the

funds were spent compared to the projections. Another is titled *Uses of Project Funds by Activity* and here we look at the loan agreement without regard to the outcomes but with other comparisons. There is another report on the World Bank special account. Those are the financial reports. Remember that there are three kinds of reports, financial, physical and procurement. In our financial reports we look at sources and uses of funds, uses for each activity and the special account.

With regard to physical reports, these have to do with unit costs and follow-up information. With regard to procurement reports, we're looking at lists of what is to be purchased, how it will be purchased and the process to be used. There are two kinds of procurements, one for supplies and equipment and the other for services and consulting.

Those are second-generation reports. Remember that those reports should be more than just numbers on paper. And it is time also for you in your own countries to consider these other kinds of information. I have an example of a project in Mexico that shows how the information can be displayed in a very different way. A simple comparison of budgeted and actual expenditures is done in a way that gets our attention. We can look at the separate components or the total project.

I think now that you have a good idea of the World Bank's requirements with regard to financial information. Now you have earned your wings to fly. If you have any questions about the World Bank's project standards, just look up our Web site *worldbank.org* where you will find a map. If you click on "Latin America" and then "financial management" you will find a site with this presentation in Spanish and English, as well as all the Bank's published standards for financial requirements. There's also a site where you can ask your questions and get answers and also hear the most frequent questions that people have asked us.

Inter-American Development Bank Fiscal Requirements

Lynnette Asselin, Inter-American Development Bank

Actually my boss was invited to address you today, but since he is now out of financial management and into trade, they asked if I could replace him. What I hope to do today is give you an overview of our financial management requirements at the IDB as well as some news that I think is very applicable to all of you here today, and that is the new pressures on the multi-lateral development banks for financial management harmonization.

So we'll begin with: What do we do? The Inter-American Development Bank makes loans or provides loan guarantees to any member country, any political subdivision government organization unit thereof, any independent agency, semi-public enterprise or private enterprise in the territory of a member country, regional organizations composed of member countries, and to the Caribbean Development Bank.

What type of eligibility do we look at? We have three types of requirements—legal, institutional and financial. What are the legal requirements? Member countries that assume liability on their own general responsibility must demonstrate that they meet certain requirements. They have the authority to enter into external borrowing agreements. There are no impediments for submission to arbitration as set forth in their loan contract with our bank. They have the authority to assume and discharge financial obligations deriving from loan contracts, particularly obligations for receiving, maintaining and managing funds in foreign currency, providing for payments and servicing loans including the payment of interest and fees in foreign exchange. They have the authority to take on the performance obligations stipulated in the loan contract with the Bank. They have the legal capacity to make changes in organization and structure as might be needed under the project or program, and they have the legal capacity to set rates for public utility services. In addition to these requisites, if they are sub-national entities, decentralized public law institutions, private sector institutions or international entities, they must also have juridical personality and their own assets and capital. After the talk I will have a paper available which goes into far more detail.

The second area is institutional requirements. The basic institutional requirement is that the basic organization of the borrower and the executing agency shall be appropriate for the purposes of the operation.

What are the financial requirements? With the exception of member countries and their central banks, all potential borrowers shall demonstrate that they are endowed with and currently have adequate assets and financial resources. They must be assured of adequate local counterpart contributions for the project or program in the amounts and at the times required; and they must

have the capacity to punctually pay service on their debts. If there is a question on any of these three requirements when we begin the process, we will carry out financial analysis.

What types of operations and instruments do we have? There is a variety of different operations and instruments in which the Bank works, from loans which are repayable to small project financing which is often non-reimbursable, to technical cooperations for emergencies.

What's new is that at the recent (two weeks ago) annual meeting of the IDB in Chile, representatives of Latin America and the Caribbean countries proposed that we create new, rapid and flexible financial instruments to help counteract the economic and social impact of turbulence in world markets. Some of the ideas put forth that the Bank needs to study are backstop credit facilities, exchange coverage instruments, as well as insurance against natural disasters such as those that have battered the countries of Central America and the Caribbean in recent years. Additionally, several Latin American governors backed a proposal to increase the maximum limit on financing directly to the private sector in order to consolidate the processes of privatization in the region and give it continuity.

The President of the Bank, Enrique Iglesias, replied by saying, "We are witnessing the formal launching of a debate on our objectives and instruments. It is necessary that we as a bank revise the traditional instruments of the Bank. We've done a lot but there is a lot more to be done."

At the same meeting, it was interesting that the bank governors from non-borrowing countries, that is countries outside the regions, also asked the IDB to deepen its cooperation with the World Bank and the International Monetary Fund. I'll talk about that more at the end.

Now you know who our borrowers or clients are and what kind of tools we have. We'll move on to projects. When we are looking at projects we have several sets of guidelines that we use. First we say that Bank finance projects shall contribute effectively to the economic and social development of the regional member countries; be consistent with the principles set forth in the agreement establishing the Bank with regard to the use of Bank funds; be technically, economically and environmentally sound, financially secure and take place in an adequate legal and institutional framework. Lastly the projects will help to maintain the Bank's reputation as a financial agency in international markets.

The goals of all of our projects must be clearly established, realistic and consistent with the country's priorities and development strategies defined in the operations programming process. Now this is a little hard to see, but this is basically a design of our project preparation evaluation and approval. From the time a project is conceived and throughout its different stages, the Bank examines the need for the project and its feasibility through technical, socioeconomic, financial, legal and environmental analysis and ex ante evaluation. We examine the institutional capacity of the borrower and/or executing agency to attain the desired goals. We establish the necessary actions and define the policy measures required to process the operation. We arrange for a final agreement on the project with the country and we submit it to our authorities for approval and then oversee its execution.

As I said, one of the analyses that we do is the financial management analysis. Since that is the topic, or what we are focusing on, I'd like to talk a bit about how we look at financial assessment. The purpose of the financial management assessment should be threefold. The first is to assess the financial management capacity of the borrower and/or executing agency, and to propose any financial management building activities. The second is to evaluate the borrower and/or executing agency capacity in maintaining adequate financial accounting, internal control and internal audit systems. And the third is to establish the review process for disbursements. Our objectives are very close to our purposes. We evaluate capacity, we determine how much ex post review will be used and we recommend corrective actions.

A typical assessment includes a review of the implementing agency's financial management capability and internal controls. The financial management capability analysis measures the financial management capacity of the executing agency to maintain effective control over and accountability for project funds and to supply the Bank's required statements on a timely basis. Internal control is a review and evaluation at the executing agency's internal control structure to obtain an understanding of relevant control policies and procedures, and to determine if those policies and procedures are adequate for management of bank finance projects. Reportable conditions, including material weaknesses, are reported, and we make recommendations to address identified weaknesses including institutional strengthening.

What are the guidelines that we use for our financial assessment? We have four types: organizational, financial and accounting systems, information systems and past experience. Organizationally we look at the organizational structure and administrative procedures and at the authority levels and procedures required for processing financial transactions. We look at job descriptions and the number and adequacy of skills of the financial and accounting personnel working in the agency. We look at the executing agency's ability to maintain adequate staffing personnel in the event of a possible turnover in the administration. Lastly, we look at segregation of responsibility for project financial management, including treasury, accounting and financial reporting activities.

In the financial accounting systems we look at evaluation of financial accounting, internal controls and internal audit systems. How do you reconcile the project funds with other bank accounts? We look at the ability of the financial and accounting system in verifying, monitoring and tracking all project-related sources and applications of funds, and the ability of the financial and accounting system to comply with Bank requirements.

The third area is information systems—electronic data processing or management information system capabilities for supporting the financial and accounting records and reports. We look at the EDP capacity to record and maintain adequate information regarding the support documents for disbursement requests.

The last area is past experience. We look at past experience, the experience of the agency and/or borrower in conducting disbursement activities with the Bank and other multilateral agencies. We do an evaluation of the latest audited financial statement and external auditor's report and an assessment of the independent auditor's significant observation.

Once a proposed project—be it a loan or a TC or small project—meets all of these requirements, there are three processes we use for performance monitoring. They are a project performance monitoring report system, a loan management report system and our annual external audits. The project performance monitoring system forms the heart of the Bank's portfolio management effort. Country offices which are in charge of supervising project execution regularly report on the status of each project and update the respective project performance monitoring report system at least twice a year. There are several key functions of this detailed in my paper.

The loan management system is an online disbursement system that we have in the Bank. Every time a disbursement is made in a country it is entered at the representation in the country and then the information flows back to headquarters in Washington. The loan management system tells us how much has been disbursed, when it is disbursed and if we're meeting our targets as far as disbursing in the project.

The last thing we use as part of our project monitoring is external audit. We consider external audits an essential element of management because they allow the borrower or the agency to verify and ensure that project resources are being managed properly. The Bank's external audit requirements are defined to verify that the project funds are used for purposes established in the contracts. A second objective which reflects the Bank's essential role as a development institution is to help executing agencies adopt and observe sound financial administration practices. The Bank and the borrower agree in the loan contract that the financial statements must be examined by either a firm of independent public accountants acceptable to the Bank, by a supreme audit entity, or in the case of a small project, a technical cooperation by an independent public accountant acceptable to the Bank.

When signing a loan agreement, the borrower must present the Bank with financial statements audited by an independent auditor acceptable to the Bank in accordance with auditing standards satisfactory to the Bank. In the area of external audit, the commitments of the borrowers are that independent auditors will be selected through procedures acceptable to the Bank. Audited financial statements will be submitted within a specified time limit. Financial statements will be audited by independent auditors. The audit will be conducted pursuant to audit requirements satisfactory to the Bank. The independent auditors will be authorized to provide directly to the Bank all information it may request concerning the audit. The independent public auditing firm, the independent public accountant or the supreme audit institution selected shall be acceptable to the Bank, and the borrower or executor will pay the professional fees for the required auditing services.

The reason I went through all that is, if you're from Latin America, I'm sure all of you have dealt with our institution. And if you're from anywhere in the world, you've dealt with the World Bank. Each of us has a list just like that that says over and over, "independent auditor acceptable to the Bank," "independent standards acceptable to the Bank." The key words in the past were "acceptable and appropriate." The problem with that is it imposes a terrible burden on the borrowers or the projects. And although it is necessary as part of the process to ensure that funds are spent the way they should be spent, it has created a tremendous burden on borrowing countries.

In 1996 the Multilateral Development Banks Task Force recommended that all development banks promote the convergence of corporate and operational policies, standards, criteria, processes and practices. Therefore, the MDB Presidents set up technical working groups to deal with the various issues that all of our institutions ask of all of you. The banks that are involved in this entire area are: the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank, the World Bank and the International Monetary Fund. One of the areas that was endorsed as an explicit objective by our banks and our working groups was harmonization. And that we would look to try to harmonize in nine areas. They are: environment, procurement, financial management, evaluation, poverty, gender, private infrastructure, governance and financial sector.

All the bilateral and multilateral development agencies that you just heard me rattle off have audit requirements, have operational policies and procedural requirements that guide the way they deal with their borrowers. But, aid recipients cite differences in donor operational policies and procedures as the single most important and costly impediment to the effectiveness of external development assistance. So there are these areas that we are now going to try to harmonize. They set up a roundtable on operational policy strategies and practices in June of 1999. Since its inception the group has met at the World Bank, the European Bank and the Inter-American Development Bank to discuss the areas in which we can try to harmonize our practices for the good of our borrowers. The roundtable is helping to raise the profile of the topics by systematically documenting each member's operational policies and procedures—both similarities and differences. It is reporting on progress in harmonization activities to the senior management teams of the participating institution, and also collaborating with the OECD Development Assistance Committee Task Force on Donor Practices.

In the area of financial management harmonization, at the first meeting of the financial management group six months ago, we selected seven areas that we thought were “quick and dirty”—things we could come to agreement on without a lot of political problems. The seven areas were: content and timing of financial reporting; selection of auditors including eligibility criteria; assessment of financial management systems including shared assessments such as the country's financial accountability assessments that the World Bank has developed; accounting and auditing standards; financial parameters and ratios; tariff supportability and subsidies; and financial covenants.

For the meeting in Manila two weeks ago, the World Bank prepared issue papers on financial reporting, assessment of financial management systems, and accounting and auditing standards. The European Bank for Reconstruction and Development prepared papers on financial parameters and ratios and covenants. At our bank, we prepared a paper on the selection of external auditors, and the Asian Development Bank on tariff supportability and subsidies. The purpose of preparing these issue papers on these topics was to survey the practices of each bank and the other members and try to identify areas where we could come to agreement. We spent two days drawing up terms of reference for further activities, including the formalization and presentation of the working group to both the roundtable I talked about and to our individual institutions' management.

We also discussed establishing a Web site for better networking of the group, hiring some consultants to obtain some necessary studies, and defining arrangements for the group's secretariat.

It is absolutely amazing how simple things such as external auditor criteria can be so different in every institution. So what we have to do now is look at why. What is it IDB needs? What is it Asian Development Bank needs? What is it the World Bank needs? And then we have to try and see if we can come up with criteria that would be acceptable worldwide. The long-term vision would be that one audit would be acceptable to every institution with which you're doing business. Sounds easy? Extremely difficult.

As I said, at the meeting in Manila we had specific discussions of the areas mentioned and identified those items on which we thought we could come to agreement. Each of us, in our assigned area, is now preparing a paper. For example, the responsibility of the IDB in this happens to be selection of external auditors. I have now received the criteria requirements from all of the other banks. What we're going to try to do is put them together and see if there are really key differences or if they are just superficial things. Or does the requirement exist because, "We've done it this way for 50 years so that's why we're doing it."

Hopefully, by September we will have a set of criteria to be presented to the roundtable that will be meeting in Manila. Although it is too early to measure the achievement of the harmonization of financial management and financial analysis procedures, there is a firm commitment to find those areas which are compatible.

Harmonization is not only a cost issue. It is also about the broader goal of building recipients' capacity in operation policies and procedures such as procurement, financial management and environmental assessment. These are the pillars of national management systems and of the international development architecture. At the country level, such policies and procedures are desirable in their own right because they help to enhance transparency and sustainability in the management of public expenditures and national resources. At the country and global levels, such policies and procedures build confidence that our assistance helps the poor in a cost-effective and sustainable way. Capacity building in these policies and procedures will have to be tailored to meet the needs and circumstances of each country.

The other thing I wanted to quickly mention along the same line is that all of the development banks, because of the task force, are beginning to sign memoranda of understanding saying that we will work together in certain things. Our Bank is on the verge of signing an agreement with the World Bank. One of the areas in which we are committed to work with them is in the country financial accountability assessments. Up until now, as I showed you at the beginning of my talk, we have all the requirements for financial management assessment. The World Bank has all the requirements for financial management. AID has all the requirements. Why should a country have to welcome three different groups to fill out basically the same information?

So as we move forward on this harmonization effort, I don't think it will be an easy thing. I believe it will impact all of you in every area of the world because we're talking about not just the multinational banks but also the bilateral institutions. We hope that it helps each country develop better standards, better procedures and better practices.

CONFERENCE PARTICIPANT: Has the group of entities that are organized to create the harmonization standard or to develop the inter-bank application standards and reporting standards interacted with the Interagency Electronic Granting Committee that exists in the United States? The reason I ask is that this Committee has been working for five or six years to develop standards for application reporting, financial management for granting, which is very similar to what you folks are doing. They've developed an electronic standard, in fact, including the protocols, the electronic standards, such that we can apply for a grant online to any agency and provide the exact same information all the time. It sounds as though what they've learned by going through this process which involves hundreds of granting entities at all different levels of government, can probably provide you folks with some good guidance for establishing not just the standards, but the electronic data centers behind them.

LYNNETTE ASSELIN (United States): It's the first I've heard of that group, and I would really welcome it. The U.S. Government, for example, because of the requirement by Congress to make sure that there is accountability and transparency in how money is used, has very definite requirements. With our banks it is a very different story. There is no Congress that says, "We need to know this information." So the whole desire to try to do this has to come from our clients—our stakeholders. At the same time I welcome it, but one of the things I've learned, being at the IDB as opposed to working for AID for a long time, is that AID had this set of rules which I really believe came from Congress saying, "We want to know how taxpayer money is spent." Going to an international organization, that's not there. And as a bank, though, I must tell you we've never had a single defaulted loan in the history of this bank. So how do you get people, or the management, or those of us in the bank, to impose these same standards and requirements without putting an onerous burden on our clients? It's a tough question. But afterwards, please give me the address of that group. That's all part of consensus building.

CRAIG BETHEL (Bahamas): I have two questions. One is: What is the position of the IDB as it relates to moving the Caribbean countries from the cash basis of accounting towards the accrual basis? Two: No mention was given to the interest rates of the countries borrowing. Why is the interest calculated based on the undisbursed amount that the borrowing countries have to pay?

LYNNETTE ASSELIN (United States): On the first question, I was just speaking with somebody from the Caribbean area. As a bank, one of the problems we have is that only eight Caribbean countries belong to the Bank. Now, I understand that the Organization of Eastern Caribbean States is going to become a member. There are 12 countries that make up that group that we deal with the Caribbean Development Bank generally through that. Just like anywhere in the world we are really promoting the accrual accounting concept across the board. We are going to be introducing the new standards Ron talked about in Santiago and hopefully we can do some workshops or seminars in the Caribbean. We are working with a supreme audit institution in Curacao. As I said, because only 8 of the 22 members are members of the Bank it is much more difficult. So we're pushing accrual accounting, but at the same time it is very hard at times for us to come in and do seminars.

As far as interest rates go, I'm not an expert on setting interest rates. I just see how you spend the money. Like all banks, the interest rate is on the non-disbursed funds to try to get countries or

borrowers to be responsible. Don't take out a loan just to take it out. Make sure there is a need, a clearly defined project. I know this is a question in several countries where the projects have sat in the legislature and people are paying interest, but I believe it is a deterrent for people taking out loans irresponsibly.

Anti-Corruption: A Practical Approach to Project Implementation

Donald Sherk, International Business and Technical Consultants Inc.

Albert A. Hrabak, International Business and Technical Consultants, Inc.

Donald Sherk, International Business and Technical Consultants Inc.

Good afternoon. It is a pleasure to be here and speak before you. I might start by making a brief reference to the questionnaire that you were handed as you came in after the break. My colleague and I thought that this was a wonderful opportunity to assess the opinions on corruption from a diverse group of experts such as yourselves. We thought that we would give you a questionnaire that you could answer reasonably quickly. Then we would take it upon ourselves to collate the results, summarize them and present them back to you at one of the luncheons or at one of the dinner sessions along with a summary sheet to take home with you. We want to encourage all of you to at least take a few minutes with the questionnaire. You can drop them either on the table at the back door of the conference hall or just outside.

My colleague, Mr. Al Hrabak and I are making a one-two presentation. We're going from a detailed examination of corruption in a single country to a broader examination of the concepts of corruption in the general area. So it will go from the specific to the general. My part deals with a single country in Africa. I do not intend to be critical of one country; it is just that I happened to have had a wonderful opportunity to be in a county in Africa recently, and my paper covers my experiences from May to October of the year 2000. So it is less than a year old.

More importantly, I had an assignment under USAID to engage in capacity building at the executive branch and the legislative branch of the government of Nigeria. It was during those weeks and months in Nigeria that I was able to survey the views held by the Nigerians about their own country and how corruption affected them personally. So if I may just turn to this paper, I will try to be quick because I want to allow equal time for my colleague.

As I said, this paper grows out of a May to October 2000 assignment of mine in the country of Nigeria. My firm had joined with another U.S. consulting firm to work on a macroeconomic policy project in the country financed by USAID. There were several reasons why the May to October timeframe proved to be propitious in an examination of Nigerian corruption. First, it was during this period that Transparency International, TI, the widely respected nongovernmental organization monitoring governance throughout the world, published its ranking of corrupt countries, or its so-called Corruption Index. TI announced that for 1999 Nigeria ranked number one on its list of 90 countries evaluated, giving it the dubious distinction of being "the most corrupt country in the world." The impact of this widely publicized announcement on the man in the street was noticeable in his frustration. The reason for this noticeable frustration was that shortly before

the TI announcement, the National Assembly of Nigeria, Nigeria's national legislative body, had considered and passed President Obasanjo's Anti-Corruption Act. In fact, President Obasanjo, summing up his first year in office, called this his most important piece of legislation. No mention was made of this Act by Transparency International when they issued their report on Nigeria, which saw the country moving from its 1998 ranking of 27th worst offender to 1st place in 1999.

The sentiment most often expressed to me was, "What does a country have to do to begin to shake off the reputation of being a very corrupt country?" One reason for the reputation stems from the fact that the civilian government in Nigeria is still a relatively recent phenomenon. Prior to May of 1999, Nigeria had been ruled by a series of corrupt military dictatorships that not only enriched themselves in massive proportions, but also almost daily suppressed human rights. The internationally monitored and fair elections which brought President Obasanjo to power breathed life into the country's moribund legislative and judicial arms of government, and it has brought dramatic changes to the country. It is within this environment that I hope to share with you today my examination of corruption in the country of Nigeria.

In addition to being in the right country at the right time to study African corruption, the nature of my assignment was also ideal from the standpoint of getting a good exposure to the ideas and views of some very articulate Nigerians. As I stated, I was in the country working on a USAID-financed capacity building project in macroeconomic analysis. In that role I had the good fortune to work with about 40 mid-level Nigerian government officials from both the executive branch and the country's legislative branch, the National Assembly. Working daily with such a dedicated and highly motivated group of Nigerians gave me a unique opportunity to explore the topic of corruption at some depth. I'm grateful to the trainees for their willingness to speak openly and with candor of the plight of Nigeria and the impact on individual Nigerians living in the country that Transparency International ranked as the most corrupt country in the world.

At the end of my presentation I will read some selected comments that I obtained from my Nigerian trainees when they submitted to me a two- or three-page individual statement on what corruption meant to them personally. I got their permission to use those statements in this paper which I then delivered at a conference on corruption at Colgate University last November. If anyone is interested in the actual remarks of the Nigerian trainees, please leave me your business card, and I can send you an electronic version which contains those remarks and contributions.

I will argue that the Nigerian model of corruption, although not identical to others found across the continent of Africa, is nonetheless sufficiently similar to be useful to our understanding of the topic. Moreover, it is my contention that unless we focus on the cultural underpinnings of corruption we will continue to concoct halfway measures and short-term solutions that are unlikely to remain in place for any significant period of time. Worse, it will only serve to deepen the national cynicism rife in the country and will threaten the nascent instruments of democracy being developed in this hothouse environment.

The roots of Nigerian corruption: As I said, the work I undertook for USAID under its capacity building strategy consisted primarily of training mid-level Nigerian bureaucrats drawn from the executive and the legislative branches of government. The training courses were practically identical for the two groups and concentrated on project appraisal, economic analysis, financial

analysis and welfare economics. The specific goal of USAID in funding such a program was to help develop a cadre of government officers that could make sensible decisions as to what kind of economic projects were in the country's best interest. The inclusion of staff members from the National Assembly was seen as a necessary complement to the training given to the executive branch officials. AID hoped in that way that they could stimulate a constructive economic dialogue across the federal government concerning the proper utilization of scarce resources and growth-generating public investments.

The trainees in their classes all had records of substantial public service and had had exposure to the earlier authoritarian regimes. The specific subject of corruption came up frequently, especially when the topic of, and the reason for, failed projects was discussed. The trainees took very little time getting involved in the courses. They were a bright and articulate group that would frequently stay beyond the appointed quitting hour to carry on an intense debate over some aspects of the day's teaching. Nor were they especially shy about setting out their own opinions about the topic of corruption.

When I learned that I might be attending a symposium at Colgate University, I asked the trainees for their assistance. I asked both classes to set down their thoughts and attitudes about Nigerian corruption. I gave no instructions about how to prepare the statements except to say that they would be voluntary and could be submitted unsigned. In this way I hoped to get the trainees to speak more candidly about the subject of corruption. Roughly one-third of the two classes responded to my plea to give me their own personal views about "what corruption means to me," and submitted statements. I should add that in my explanation for why I needed the statements I told them about the conference that I would be attending and how helpful it would be to have some personal statements from people that had lived through the recent military dictatorship known as the Abacha regime.

To underscore the importance of this point, I would add that while I was in Nigeria the press reported almost daily on an estimated \$4 to \$5 billion that the previous ruler had siphoned out of the country and placed in secret bank accounts throughout Europe and North America. The fact that a number of reputable and respected Western financial institutions had assisted in this process was certainly not lost on the students.

As I thought about the subject myself, and knowing I was working in an African country that was given the dubious distinction of receiving the top rank in the Transparency International list of most corrupt countries, I tried to approach the subject with the degree of seriousness that it deserved. I asked myself what it would be like to live in a society so corrupt that people from other countries would not bother to get to know me as a person, but simply lump me into a category of corrupt individuals and would not give me the opportunity to set the record straight regarding my own family's situation.

As a husband, as a father, recently a grandfather, I thought of what I had personally tried to instill in my children in terms of values and mores. It came as a staggering realization to fully understand that my behavior had little effect on how I would be viewed in another country. I came to realize that my good name would have been stolen from me by individuals who had no idea who I was, nor would they care about the actions that had caused me to lose it. It was only then that I

began to recognize the true dimensions of Nigeria's corruption problem, and at the same time be able to grasp what would be required to rescue the good name of the average Nigerian. In spite of the country's immense poverty, over 70 percent of the population living on a dollar a day, the robbery of a country's good name was in actual fact a greater hardship than poverty, or so it seemed to me.

Tribal loyalties in the foundation of corruption: Most Nigerians can trace their roots back to small villages characterized by single ethnic grouping and the involvement frequently of four generations living side by side. The typical Nigerian village was undemocratic in the modern sense of the word, being led by a chief with lifetime tenure. The chief might head a village council of elders or wise men. Village tasks such as farming and hunting, cooking and childcare, were usually well established and performed by a subgroup of the village population. Special events in the life of an individual or family were honored often with the involvement of the entire village. Major requirements in the lives of villagers were brought to the doorstep of the village chief or one of the elders. A sense of obligation based on ethnicity and village standing carried with it an unwritten understanding that the most well-off among the villagers were under obligation to help the least well-off among them.

This sense of village or tribal loyalty has often been admired and respected far beyond the borders of the village community. But it is precisely this sense of loyalty and obligation that provides the starting point for much of Nigeria's corruption. When the individuals move out of the village and onto the larger stage such as a district, state or federal government position, it is widely acknowledged by the majority of trainees that local, ethnic loyalties remain strong in the new locale. Jobs, contracts, inside information are all recognized as being dependent upon these special relationships that are often nurtured at the village level. Consequently, removing these relationships as a basis for corruption requires the difficult task of saying behavior valued and admired in one setting (the village) is unacceptable in another. This type of reeducation is extremely difficult to achieve in a short period, and judging from Nigeria's experience it has failed miserably.

So far, after just a year-and-a-half experience with civilian rule, the public remains extremely cynical about the ability of the Nigerian administration to make much of a dent in the corrupt behavior that has plagued the country for years. Some Nigerians have argued that in spite of the showpiece anti-corruption legislation promoted by the President and passed by the National Assembly, the public at large remains cynical and will remain so until a few individuals known to be close to the President and/or the National Assembly are actually sent to prison with stiff prison terms.

Why corruption as a proper subject for development took so long to come out into the public arena is unclear. Those of you that have as much gray hair as I do will admit with me that subjects covered at this conference would never have made it onto an agenda of a conference like this ten years, fifteen years, twenty years ago. We are dealing in subjects that were previously off-limits. And I think we all recognize the changes in our society globally that have caused these subjects now to become perfectly able to be discussed in developmental forums.

Before I close I want to touch on two other aspects. First of all, when my trainees thought about what course Nigeria should follow to try to eliminate corruption, they focused on one of their neighbors. South Africa had recently undergone something called the Truth and Reconciliation Commission. Under this Commission chaired by Reverend Desmond Tutu, people, both black and white, came before the Commission and admitted to the Commission any wrongdoing or illegality. They were then absolved from future punishment. It was a chance to set the record straight and to come clean.

My Nigerian trainees thought this might be a very good starting point for an attack on Nigerian corruption. They suggest that there would be a three- to six-month grace period whereby individuals would come forward, talk to the Commission, admit any financial wrongdoings, have their assets valued by a reputable accounting firm, and then have a tax of somewhere in the vicinity of 30 to 50 percent that would have to be paid back to the government. The remainder could be kept by the person coming forward and being honest. From that point on no prosecution would take place. They were trying to think of ways to have a fresh start because they felt that unless some type of penalty were enacted against the past perpetrators of corruption, the society would be cynical about dealing with future corruption. So they were trying to come to grips with an approach that would allow them to go back and deal with past corruption in a sensible way that would point the way into the future.

Finally, in the last couple of minutes, allow me to pull out of my trainee statements a couple of thoughts and comments that I think will evidence the thoughtfulness and the articulateness of most of these trainees. What I say from now on will be the comments of my Nigerian trainees.

“Corruption is as old as man. The only difference is the degree or intensity of involvement. In Nigeria it has been elevated to a state act. The fall from a high moral pedestal is disturbing to many Nigerians still with a conscience who believe that there is still hope for the new renaissance and a democratic Nigeria. There should also be reforms both in the public and civil service, and there should be capacity building in all tiers of governance. Anti-corruption laws must be adequately enforced, the key watchdog institutions made strong and sufficiently funded, and corrupt practices visibly punished. To reduce corrupt practices, a fully adequate salary level, adequate pensions and a higher degree of accountability are a must for the civil service. The absence of these features creates a strong pressure for petty corruption at the lower levels of the wage scale and grand corruption at the top. The judicial arm in the government needs to be adequately paid, well staffed, well qualified. Otherwise a weak and corruptible judiciary cannot enforce contracts, property rights, nor prosecute wrongdoers. It is seeped in, soaked into all facets of Nigerian life. And irrespective of the Anti-Corruption Act recently passed, it would be a hard fight to try to eradicate it. The tradition of being one’s brother’s keeper has made some Nigerians once in public office accord undue advantage to one’s brother, kin or ethnic group. Once in public office there are unjustifiable advantages one is expected to extend to one’s family, friends and others close to the one appointed. As of today, most if not all of the political public office holders are products of the military-entrenched corruption because the cost of getting into political public life is limited to only those that could buy those offices. Consequently, upon the above, these public officeholders have to ensure the recovery of the money spent in getting into such offices. One has to recall the frequent saying of some of them, “I did not get elected now to become poor.”

Lack of political will and moral justice to get the past perpetrators of corruption to account for, or to atone for their deeds, is perhaps the greatest obstacle to the eradication of corruption.”

And finally, “Before independence in 1960 there was little corruption here, but there were elements of it. With the incursion of the military, corruption became institutionalized and reinforced. The military not only corrupted itself, it also corrupted other segments of society, namely civil service, the judiciary and the traditional people. The traditional structure has been an important element which held social values intact. Having corrupted the segment of our society, other segments fell apart. Corruption was also rooted in our social family structure. Family values were let loose as corruption crept into our schools and universities. Merit and standards were downgraded in favor of mediocrity.”

I think having listened to those last comments of the Nigerian officials, you can get a sense of appreciation of how seriously it has affected one country. I would suggest there are elements of this that are true in every country.

Thank you very much.

Albert A. Hrabak, International Business and Technical Consultants, Inc.

Ladies and gentlemen, thank you very much for your patience with us today. Thank you very much for attending this conference and for giving Don and me the opportunity to speak to you.

We’ve heard over the past day and a half a considerable amount of discussion on the financial accounting, financial auditing, the financial reporting aspects that the donors as well as beneficiary countries are improving and working on. We know that there is the imminent adoption of IPSAS, the International Public Sector Accounting Standards. We are seeing the adoption of INTOSAI auditing standards by supreme audit institutions around the world. In the private sector we’re having the statutory adoption of international standards of accounting and international standards on auditing.

I’d like to diverge a little bit now to discuss some of the management accounting issues that we as a company have specifically found as we implement accounting and auditing reform projects around the world. I wanted to draw this parallel of financial management to operational management in the fight for anti-corruption because we believe that the two may be very closely entwined. As we implement projects around the world for donors and for beneficiaries, we find that the same rational, good accounting practices that are instituted for promoting economy and efficiency also promote anti-corruption.

The purpose of my speaking to you today is to stimulate your thinking on the role of performance measurement or impact analysis or other similar types of anti-corruption activities in your countries. I would like to focus on what I call practical concepts that we’ve gained while implementing these projects. These concepts might be useful for you as you design your new systems to meet, on one hand, the requirements in your own country for budgetary discipline and

improved efficiency and economy of operations. But also on the other hand, to meet the requirements from the multilateral donors.

You'll hear tomorrow or the next day from Senator Ros-Lehtinen of Florida about the anti-corruption act that has passed the United States Congress. There is an impetus in the donor community today for beneficiary countries to improve the transparency, improve their accountability and to improve their fight against corruption, or they'll face losing the funding from the United States Government being provided to multilateral donors.

We know of other governmental donors who frankly have decided to stop funding some of the projects because of the lack of accountability, the lack of transparency, and the concern that corruption has in fact prevented the objectives of those programs from being met.

Today I want to discuss three issues. First I want to give you a few citations from the Lima Declaration of 1997. Then I'd like to discuss some concepts for reducing the opportunity for corruption. Finally I'll talk somewhat generally about assessing performance or impact analysis of projects or programs at the government level.

I've chosen four citations from the Lima Declaration. The first is paragraph 18 which addresses the professional association's role. Paraphrasing it, it states that accounting, auditing and securities regulation associations should take actions to improve financial accounting. They want to improve the integrity of the financial operations of government and the economy in developing countries.

Paragraph 20 addresses donor cooperation. Specifically paraphrased, it says that donors should cooperate and develop global indices of cost to identify anomalies created by bureaucracy and by corruption or lack of fiscal integrity. That's a theme that we're hearing from other presentations.

Paragraph 22 speaks on transparency and accountability. It specifically says that all governments must operate in a transparent and accountable manner. It didn't limit it to financial reporting. It says that all governments must operate in a transparent and accountable manner.

Finally, paragraph 29 discusses financial management systems. It says particular attention should be given to the strengthening of financial management systems and transparent budget processes.

Speaking on the reduction of the opportunity for corruption, we sometimes want to get to the notion of who really is responsible for corruption or responsible for inefficiency, responsible for fraud or waste. I submit it takes at least two parties: One side is the perpetrators, but the other side is the people who in their professional positions in governmental financial management should be preventing the perpetration or detecting the perpetration, and thus reducing the opportunity for corruption, fraud, waste, inefficiency and ineffectiveness.

So I focus on the internal control structure, very loosely defined. We see especially through the COSO Report and through a number of timely enlargements of definitions such as The Institute

of Internal Auditors' definition of internal auditing, that the definition is being broadened from merely financial internal controls to operational internal controls. The focus is on what you must have in place to ensure the success of your mission, be it financial or be it providing services or products for your clients or your stakeholders.

The internal control structure of an organization or governmental entities, besides reducing or removing the opportunity for corruption, increases the probability of detection of fraud, waste, abuse, inefficiency, ineffectiveness, corruption. But that alone is not enough. As Don has very well highlighted in the case of Nigeria, the general public as well as the perpetrators must know that punishment is certain upon detection, and that there will be strong and timely punishment. Now who can identify corruption, fraud, inefficiency, waste and abuse in government better than the people who manage the financial systems which account for the inputs and outputs of the government projects?

I want to speak a bit about performance assessment as a preventive measure. Once again I want to use the term somewhat loosely. There is a variety of terms like impact analysis and others floating around today, but essentially they mean the same things. First of all you can consider the measures of product or services that are provided. How much is being given? What is the timeliness of it? What is the quality of services or products being provided by an agency? When we talk about corruption, though, it is very difficult to identify the impact, because how many people run forward and say, "Well, I stole \$50 a day for the past 500 days from this project, and therefore the services delivered are far amiss of what was intended." So many organizations that are analyzing corruption today focus on the second measure which is customer satisfaction or perceptions about corruption.

They do it because we have not, or you have not or the donors have not, really imposed a good, standardized measurement system to benchmark provision of services, to benchmark results of multilateral projects, to benchmark training and education. So, of course, we are not able to compare what is being achieved against those benchmarks to identify deviance or to identify outlier observations that could be attributable to corruption or perhaps just to mismanagement and waste.

We speak about measures of product or services. We have to avoid falling into definitional pitfalls, but we also need to understand what the benefits of looking at alternative measures are. Effectiveness is of course not the same as efficiency. You can have a very inefficient program which is very effective in reaching its objectives, or you can have a very efficient program which is not very effective at all. So you must be very careful how you are measuring those two dynamics.

As to financial versus operational, I've already introduced a bit. Do you focus on flows of money or do you focus on units of output or units of input? It brings us to this notion of efforts in inputs. How do we measure the service efforts, or how do we measure the time, the energy, the commitment of resources to achieve results? Outcomes versus outputs. Are we looking at the creation of a situation? Are we looking at the number of people graduated from university? Do we want to focus on what their impact is on these various programs? Are we creating a healthy population or are we treating patients?

Many of the multilateral agencies have come a long way in many sectors of measuring this. I don't believe that we're quite that far along in terms of governmental financial management yet, or in other operational areas of services provided that financial managers such as yourselves or auditors such as yourselves are charged with analyzing or charged with helping to facilitate.

Then there is the whole notion of what criteria do we use when we're measuring or setting benchmarks? Who has the appropriate benchmark? How do we find those out? I'll talk a bit more about that in a moment.

How do you analyze the activities of governmental units in order to create these benchmarks or to compare against the benchmarks? There are some pitfalls that I want to address based on some of our project experience. There are three general types of criteria. The first type is experience-based. This is where an agency or an organization can say, "Based on our experience in the past x number of years, we believe that the criteria we established for effectiveness or efficiency in this particular program should be these criteria." That is sort of a ground-up approach for people who are very intimately knowledgeable about their country's particular situation or the specific processes and procedures that their country uses.

Then there is the estimated or expected value of experience. We know that our country is unique. We know that our country cannot necessarily be compared to any other single country or even perhaps an average of countries in the types of programs we're seeking to measure. But we know good general management principles so we're going to estimate what our experience should be. We're going to estimate what our effectiveness, what our efficiency should be. That's sort of an educated approach that presumes that you can analyze quantitatively and make judgments as to what an appropriate measure would be.

The third way is a standardized value, and I believe that a standardized value, what we see in projects we're implementing, is called for by beneficiaries of international projects. They are looking at some type of criteria for establishing effectiveness, efficiency, criteria for preventing corruption, that is based on both experience and expected or estimated values. It is the creation of data which then can be used for statistical analysis to identify a relevant range of activity from which they can say within one or two standard deviations, we know that 98 percent of our agencies should be hitting this effectiveness or this efficiency level. This would be based on similar organizations or similar countries, but also based on good practices that the donor would love to see us develop, that we ourselves would like to develop.

Focusing on the analysis activities or techniques for deriving some of these criteria, especially within specific agencies or specific organizations, there are three general ways that this can be done. One is direct observation. How many people here represent supreme audit institutions? Please raise your hand. There is a fair number of you. Many auditors in many countries in fact go and sit in the office and watch. They conduct the direct observations of processes, procedures. They watch people posting financial transactions. They watch those transactions going through the financial systems. They watch to see that the numbers drop out into the appropriate lines on financial reports. It is time-consuming. It is tedious. It is not very well appreciated by the rest of you who aren't auditors. But it is a very effective method for developing criteria.

The next method is examination of documents or data, statistical sampling. A very good example of that is looking at cross-sectional data over various organizations to estimate criteria that could be used in effectiveness, efficiency or identification of corruption, prevention of corruption.

The third is the customer surveys that Transparency International and other organizations use. This is going to the clients of government, to the customers of government and saying, “Tell us what has the most impact on you as a user of services.” “How much time do you have to spend getting a business permit?” “How much additional cost besides the normal fee do you have to pay to get a license or a permit?” “How satisfied are you with the treatment you receive from your governmental service providers?”

What we’ve seen in much of our project experience is that a mixture of these three techniques can be used very effectively. In some cases it is more appropriate to use one or two. In other cases, a different two may be more effective. But overall, when we’ve approached on these specific projects to identify some efficiencies or effectiveness in what we’re trying to do for our clients, we opt to use all three. Presenting and analyzing all three together is the most meaningful way. We submit that the donor agencies and you beneficiaries could start sharing much of this information among yourselves in forums such as this to help you identify some meaningful analysis of your operations.

We can talk about obtaining business permits as an interesting example. We understand that such a process is inevitably subject to a lot of delays—regulatory, bureaucratic. It typically requires a lot of extra fees to be paid to parties who seem to have considerable discretion over who gets a license or who doesn’t, regardless of whether they meet the regulatory requirements or not.

Just to toss out three ideas of measurements that you can conduct in such a process, you could, either by a direct observation, by sampling documents or by surveying the customers, identify some timeliness or responsiveness of agencies that issue business licenses. If enough of you did that in your countries and then pooled the results, you would of course get a bit of a scatter-gram which may or may not fit some kind of a linear regression which may or may not give some type of statistically sound measure of average number of days. Who here has collected that type of information? Anybody? Good.

Another measure you could look at is the conformance of the process or the procedure to grant the licenses with the regulation itself. Compliance auditors are known for doing this. I participated in a number of audits which painstakingly looked at the number of days that courts spent in collecting a \$5 fine that was levied against somebody for some infraction of the penal code.

You can look at completed applications for licenses versus what was actually scheduled to be done for the requirement or for the statute for some standard measure of processing. How many licenses are past due in their issuance? How many licenses might be pending a decision at a particular stop point? And what power of discretion does that stop point have in granting that license? And why is there a backup or a bottleneck at that point? By analyzing these types of questions you can come to some very interesting conclusions, most of which deal with effectiveness, efficiency or corruption.

So what does this mean in general? Will the same measures taken to improve effectiveness and efficiency reduce corruption and vice versa? From what we've seen in our project implementation the answer is yes. You're killing two birds with one stone when you implement appropriate internal control procedures and structures.

Should donors and beneficiaries operationalize anti-corruption throughout specific projects? Should they apply performance measurement, impact analysis, etc.? From our limited experience we think that they should. And I think forums like this encourage that type of an approach. We are hoping that you complete your questionnaires because perhaps some of those answers will serve to corroborate that hypothesis or refute the hypothesis.

And then finally, is an effective internal control structure essential to anti-corruption? We've reached a couple of conclusions. I've already told you one of them, that we believe that donors and beneficiaries must increasingly operationalize by using performance measurement to drive the collection of data, by establishing standards which can be used to promote integrity of operations and finance. Senator Helms of the Foreign Relations Committee in the U.S. Senate has reached the same conclusion and has put into the Anti-Corruption Act, as we'll call it, specific language stating that the donors must start developing measures to prevent anti-corruption or else they will lose funding for projects from the United States Government.

The second conclusion is that without this improvement in integrity, it will become more difficult to achieve the funding levels needed. The message being sent by the donor countries or the funding countries is that they will not tolerate a small number of people getting rich off the money that their taxpayers are providing to develop countries. So with that type of a focus that we bring as vendors or as contractors to all of the multilateral agencies, to the USAID, to the European Bank for Reconstruction and Development programs, we thank you for the opportunity to share these concepts with you.

We look forward to you emphasizing on your questionnaires and in your operations how you feel about these types of issues. If you would like to share your perceptions I encourage you to do that at this time as well.

JIM HAMILTON (United States): Al and Don, I think you stimulated a lot of people through your storytelling, which is always very effective. I noticed a lot of our colleagues here have already filled out their forms and have eagerly put them in the box in the reception area. One of our colleagues said, "I think all of these are fives." I had sort of the same feeling as I was filling it out. There is an interconnection of all these factors. Each one of these measures seems to be very important in sort of a matrix self-reinforcing fashion. I just wondered, Al, if you had that thought in mind when you were developing this form.

ALBERT HRABAK (United States): Our opinion, as you can tell post-presentation, is that they are all very important. They may be important in different measures. One of the things we're hoping to be able to say is that 350 financial management or financial integrity people met in Florida through the ICGFM, a professional association, and voiced their opinions on these qualities

which were taken from Transparency International, United Nations, World Bank indices and a number of other indices to basically support the multilateral donor projects in this field.

OSWALDO RODRIGUEZ BAPTISTA (Venezuela): I found the topic you were covering very interesting. I see in the questionnaire that it is important to have internal controls and so forth, but I believe the basic aspect of the questionnaire is that we educate man to standards and norms. Maybe we should start with the constitution of the country and go through all of its laws. If the people who apply these norms don't have honor, if they don't have a concept of what is right, then certainly we are not doing anything because there will always be a few people who will get together to continue corruption. I would just like to make this comment.

ALBERT HRABAK (United States): We couldn't agree more fully. Typically the projects that we implement in accounting reform or auditing reform have five components to them. One component is the technical standards themselves. One component is the legal and regulatory framework and structure which includes educating the governmental leaders and the public on the need for these types of laws. The third component is to create curricula in universities that specifically address training professional and ethical accountants and auditors. The fourth level is in fact a high-profile ethical advertisement or promoting the public's view to the need for independent, professional and ethical financial management, ethical financial accounting. The final factor that we work on is to develop indigenous professional associations that are not restricted in their membership. We're actually trying to build the collegial nature of working together. As a part of that we work to create an ability to publicize the value of the profession to the economy, to the political process, into the legal integrity, the judicial integrity within their countries. This has been based on years and years of donor experience. It is those five factors that are essentially building a civil society and building a professional environment that does reduce corruption, either by removing opportunities or increasing detection.

DONALD SHERK (United States): I think my colleague has covered it very well. I would just simply add a couple of points specifically addressed to my experience in Nigeria. I would just recall for you one of the statements that I read from the Nigerian trainee who is decrying the breakdown in the family and ethical values that issue from a corrupt regime. The other point that I think stood out very clearly in Nigeria was how extremely important it was to begin to reduce or turn around the public's cynicism with their leaders, whether their leaders were foisted upon them in some military coup, or whether indeed they won out in some election. Public support and a belief that their leaders are honest is the *sine qua non* of a successful, healthy, growing economy, and I think that is clearer today than ever before.

FERMI JULIO CHENGA CHAVEZ (Peru): I'd like to congratulate the speakers on their presentations. My job is Vice President of the National Council of Magistrates which has the responsibility of naming the judges and inspectors. I've had this job for about eight months. My question is, "Why do we have long-term governments like in Peru where we've had one president who has been there for ten years?" He showed himself to be very competent, but when the regime fell we saw that it was completely corrupt. Even more serious is when we are dealing with the judicial branch and we find it is being manipulated by a group of people with their own agenda. This happens in the long-term and it is discovered that there is a high level of corruption. Is this common with the fallen regime? Or is this common in long-term regimes?

DON SHERK (United States): I think that is an extremely good question. I am reminded of the statement that was made in the 1930s about Mussolini. Everybody said, "Well, the trains run on time." The question is how long were they going to run on time and whether there was some fissures or problems with the society that would clearly indicate that society would eventually corrode and crumble. I think we can all agree that it is possible to have a leadership which is surrounded by people that can be effective in the short-term, where they have not cut corners or taken payoffs. But it is in the longer term where those elements corrode the belief of the people in their own leaders. I think you've raised an important point. I think we should never lose sight of the fact that corruption is eventually found out and creates the chaos from which it has to arise.

MARCELO TORO (Ecuador): Ecuador is a country of 150,000 square meters which the Ecuadorian budgetary system gave as a present to President Mahuad. This President was the most corrupt president that the Government of Ecuador has ever had. Ecuador is ranked as the most corrupt country in Latin America according to Transparency International. But I would ask, is it possible that great corruption is in the budgetary system among the politicians within the administration of justice? Isn't it going against the opinion of our Venezuelan friends saying that there should be honesty in people when in Ecuador there are executives who receive pensions of \$2 a month? Could it be the case, distinguished speakers, so that there could be a reverse of honesty and transparency in managing of the public good to educate the grandparents?

ALBERT HRABAK (United States): What we have seen typically in some of our projects in Central and Eastern Europe is agencies or entities that are outside of the external audit or outside of the budgetary control process. Oftentimes the extra-budgetary offices don't have to meet the same restrictions that operational offices have to meet, or there are national property funds that are exempted from audit by the supreme audit institutions. And we may have political appointees operating those funds. Fundamentally it is a rule of law issue in each country. We as contractors or vendors to the multilateral development agencies are governed by a contract of what we do. We identify to our clients as well as to the beneficiaries what we find to be practices that reduce the effectiveness, reduce the efficiency or detract from fiscal or financial integrity. I share your concern. I share your grassroots issue, but there are certain processes that must be addressed by the citizens of the country. The multilateral agencies and contractors for them, such as ourselves, can highlight, but we have very little discretion to go beyond certain parameters.

LYNNETTE ASSELIN (United States): A very good example to reinforce this is in Peru. A 1998 report pointed out that only two agencies were not part of the financial management and accounting system. And the two agencies were defense and interior. It was there. But unless people decide to do something with this information, it will never change. It has to come from the people who pay their taxes. I saw this information in this report in two places. In another place it said the only two agencies that overspent their budget, the only two agencies where the numbers were not reliable, were in those two agencies, and nothing happened. And this was the 1998 report, done in 1999. So the responsibility has to rest with each citizen.

SILVIO S. PIMENTEL LOPEZ (Dominican Republic): We have been talking for several days now about the subject of corruption and transparency in the management of public funds. Today we have some representatives from different institutions that finance projects on a

worldwide basis. My question is similar to that of my friends from Venezuela and from Ecuador. The Bank is financing programs against corruption that are corrective—economic reforms, fiscal reforms. But still we see corruption which benefits the society. So my question would be what are these organizations doing so that our children can be instilled with an anti-corruption mentality?

DOUG ARNOLD (United States): I guess since that question was directed to the multilateral organizations I should answer it. I agree completely with what has been said. Corruption is a very, very difficult problem. And it has to be attacked from many, many different sides. It has to be attacked with an integrated financial management system. That is one way to attack it. Transparency is another way to attack it. A free press is another way to attack it. Education is a very, very important way to attack that—education in schools, education in homes, education of children, and as one of the questioners suggested, even education of the grandparents. I think we're all working together towards that aim. I will tell you that at the World Bank, when we see things that are good, we like to talk about those.

And I'll just take one minute to tell you one thing that I learned in the last couple of weeks. I would suggest that when you go home each one of you goes to the Government of Argentina's Web site. In the year 2000 the Government of Argentina passed a new law of fiscal responsibility. And as a result of that law, the Argentines right now are in a full-court press to put everything that they have out on the Internet. Last year Argentina did 151 audits. The Auditor General of Argentina has published 151 audits on their Web site. So every World Bank project that was audited by the Auditor General of Argentina is on their Web page and you can read about what happened in the World Bank's projects in Argentina.

I encourage every Auditor General who is here to take that same tack toward transparency. If you do a report, put it out there. I have seen audit reports that I know if they were public the problem would go away because people could not stand to have that information out there in the light of day. So there are lots of things that the multilateral organizations are doing. We're working together on harmonizing audits and coming up with standards for audits. But remember, you just can't go out in one direction. It's like pushing Jell-O. If you try and push Jell-O sometimes it just keeps getting away from you. This is a case where you've got to go at the problem from all different sides. You have to circle the wagons—education of the children, education of the parents, education of the grandparents, integrative financial management systems, a free press, public disclosure. There's a lot to be done.

Questionnaire Results

Donald Sherk, International Business and Technical Consultants Inc.

First let me say that the questionnaires have been compiled. We want to thank all of you for participating. This you will recall was on Tuesday morning when we circulated the questionnaire and people answered the questionnaires for the most part during the session. We had over 110 responses out of an audience that morning which we estimated to be about 180 participants. So we had over a 60 percent response rate.

Another thing that is notable about the questionnaire was that many people took advantage of the section where we asked for comments. So it wasn't simply recording a numerical value of more important or less important. Those written comments still have to be translated into English. We are almost finished with that task. Unfortunately you're going to have to wait for that. We're going to arrange for the written comments and a more detailed analysis of the empirical data to be put together and then circulated as part of the transcripts for the conference. Anyone wanting to have a report on the questionnaire results prior to that circulation, please leave me a business card and write on the back of it that you'd like a copy of the results. I won't take much time, but I thought there were several of the questions that you might like to hear about at this time.

As you recall, on the questionnaire we said that you were to rank your answers from one to five. The answers that were ranked four and five we've identified as being relatively important, and those answers that were one and two were relatively unimportant.

First of all, with respect to the first question, 94 percent of the respondents expressed the belief that corruption was a major obstacle to economic development. On the second question, 80 percent felt that the most important reason that national anti-corruption programs fail was due to civil society not being involved in the program. As you know from reading the results of other questionnaires, these are very dramatic percentages. Eighty-three percent felt that increased budget transparency was important for reducing corruption. Seventy-nine percent felt that increased penalties for corruption were important to reducing that corruption. Finally, 90 percent of the respondents indicated that increased beneficiary awareness of donor anti-corruption programs is relatively important, and 88 percent indicated that increased audit effort on contractors and beneficiaries was also important.

Central American Bank for Economic Integration: Accountability Expectations

Marvin Taylor-Dormond, Controller, Central American Bank for Economic Integration

I would like to thank the Consortium and the School of Accounting of Florida International University for inviting me to share with you some of the thoughts and the actions that we've been promoting regarding the subject of accountability at the Central American Bank for Economic Integration.

For those of you who don't know the Bank, this is the oldest sub-regional multilateral financial organization in existence. It operates in Central America and it is owned by the five Central American countries plus Argentina, Mexico, Colombia and the Republic of China and soon by Spain. So it is an institution of the same species as IDB and the World Bank. We do the same type of work, so most of what I'm going to be saying is also applicable to the IDB and the World Bank.

I would like to apologize to the Spanish-speaking audience for addressing you in English. I was not aware of the availability of the two screens and of translation services. So I will proceed in English.

Let me go straight to the subject. The term accountability and more importantly the notion behind it has gained enormous importance and presence in recent years. Just the Web registers more than a million entries of this term in English and more than 31,000 entries of an equivalent expression in Spanish, including hundreds of pages and sites and studies covering a wide range of societal areas. Where one concept has an established reputation, it is gaining depth, and where it is coming to be known, it has become more and more recognized as an indispensable precondition for good governance.

So within this framework I would like to touch upon four issues this afternoon. The first issue is the concept of accountability as we understand it and the reasons why the importance of this concept is growing. Second is the difficulty of putting in practice the concept of accountability. Third is the challenge that we are facing with promoting accountability in the Central American region and at our bank. Then I will make some concluding remarks.

The concept of accountability and its growing importance: Conceptually, simply put, accountability is the desired outcome of social arrangement whereby: a) rights and responsibilities are bestowed upon and accepted by given parties, including the specification of ends, goals and the provision of resources to accomplish such ends, b) obligations of these parties to report back on the discharge of such responsibilities are expected, or at least information on their performance must be readily available, c) obligations from the delegating parties to demand such reports are assumed, and d) rewards and sanctions associated with the results obtained in the use of the assigned responsibilities and allocated resources are supposed to be applied. Accountability therefore

involves the exercise of authority and responsibilities from both the trusted party and the party which is delegating its trust—the latter not very often recognized; the definition of obligations, results and measurement of their fulfillment; and the specification of compensation instruments for the obtained products and outcomes.

The increasing importance that societies are assigning to the concept of accountability, as well as to the notions of integrity and transparency, in my judgment, originates at least from four sources. First, within the context of the growing prevalence of the market system and the rapid spread of globalization, an environment characterized by weak accountability, integrity and transparency have a negative impact on the exchange process of goods, services, capital and information by introducing distortions in the price system and uncertainties on property rights, the essential foundations of the exchange system, of the market and of economic competition. More generally, as some studies have indicated, trust has a significant impact on the economic performance of nations.

Second, democracy as a political system has expanded over the last two decades. For instance, in Latin America, of the 26 borrowing member countries of both the IDB and the World Bank here present, 13 had democratic governments and only three had direct elections for mayor in 1980, whereas today all of them have democratically elected governments and at the end of the 1990s 17 had directly elected mayors. Democracy means greater participation and voice in community life and therefore greater scrutiny on government activities and on the use of public funds.

Third, the growing availability of information has led to rising demands upon organizations and institutions from the citizens they serve. As a recent report by the World Bank indicates, there is a direct correlation between information and education and demands for the transformation of the institutions,

Fourth, related to the above, the principles of integrity, transparency, accountability and respect for human rights are fundamental to the system of checks and balances of the freedom, democracy and market paradigm we cherish. Therefore, within the context of this one-pole ideological paradigm currently prevailing almost in the entire world, the defense and promotion of these principles are more important than ever. And considering that, the objectionable living conditions of thousands of people that have embraced with new hope such ideological paradigms by no means have changed (for instance, in Honduras, 80 percent of the population lives under the line of poverty) it is the responsibility of all of us to strive hard to keep these hopes alive, by strengthening the capacity of institutions and organizations to meet the demands of their stakeholders. I regard this gathering as an exemplification of the recognition and acceptance of this high duty by all of the participants in this event.

Accountability in practice: Despite the growing familiarity of the citizens with the notion of accountability and the increasing demand and evident requirement of it imposed by the economic and political system we have embraced, the essence and implications of the idea are not so much discussed. In practice the notion is often rather avoided. Indeed, in practice what we most frequently see is the delegation of responsibilities and resources, with little discharge of these responsibilities, no demand for reports, and weak systems of rewards and sanctions. This is especially the case in organizations of political nature.

Why this difficulty to implement the concept and practice of accountability? Let me briefly focus on the case of the public sector or political organizations at large, as this is the general framework encompassing the case of the Central American Bank for Economic Integration. Let me also concentrate my comments on the case of developing countries, for this is the nature of the beneficiary members of our Bank and the nature of many of the countries here represented.

As we have seen, accountability requires first the assignment of responsibilities and resources to fulfill ends and purposes, second the duty of discharging such responsibilities, third the obligation of demanding this discharge, and fourth the existence of systems that compensate for the fulfillment of the expected value added by organizations. The trouble with the application of the notion of accountability can be examined within the framework of these very same requirements.

Take the first requirement, that is the assignment of responsibilities and resources and the specification of ends, objectives and therefore products and outcomes that organizations must fulfill and generate. Although ends and objectives are normally clearly defined through laws, regulations and the like, the trouble lies in the measurement of their fulfillment, in determining their alignment between products and ends, and more importantly in the measurement of the contribution of the products to the desired outcomes. These are certainly matters of enormous complexity, both from the methodological and the political points of view. Of course, it is not my intention to address them for that would be beyond the scope of this presentation and the time I have been generously allotted today. But I cannot avoid emphatically stressing the importance of these matters to ensure the establishment of reasonable accountability systems in the public sector.

This becomes more important if we consider that political organizations tend to reflect conflictive interests and therefore are prone to seek legitimacy by fighting simultaneously not for a single purpose but for numerous and sometime contradictory interests. Thus in the end, if products and outcomes are not defined, it is difficult to understand the value and products added by a political organization. In short, accountability starts by defining goals, products and outcomes of organizations, and also the instruments to measure their fulfillment. In the weak institutional tradition to achieving this requirement lies the first obstacle to accountability.

The second requirement for accountability is the obligation of the parties to whom responsibilities have been entrusted to report back on their discharge. This can be interpreted as a proactive reporting attitude or at least a commitment of the incumbent organizations to make information on their performance openly available, a commitment with disclosure and transparency. This is intimately related with the first, third and fourth requirements I just mentioned. Not only is there little tradition in the public sector to discharge responsibilities but also a strong tendency to avoid it, in part because of the explained contradictory or multi-interest nature of political organizations. And this tendency is only reinforced by the weak definition of goals, ends, purposes, products, outcomes and measuring instruments to determine the attainment of these results and, as we shall see, by the incapability of the citizens to objectively demand results and the frail or inexistent systems of rewards and punishment. Briefly put, in this front accountability faces not only a cultural obstacle in the sense that political organizations are not used to reporting back on their utilization of entrusted capabilities, but also given the fragility of

the other requirements for accountability, they are not often forced to change this attitude. They are not forced to be more transparent.

Concerning the third requirement—the obligation of the delegating parties to demand the discharge of responsibilities—citizens tend to be unprepared to fulfill these expectations. Not only do they have a tendency to be frailly organized but they also lack the information and sometimes the education to interpret the activities and dynamics of their organizations. Citizens end up at the mercy of the organizations, for as Alexis de Tocqueville has observed, “...the subjection of individuals will increase among democratic nations...in proportion to their ignorance.” Figures like the Ombudsman, the Commissioner of Human Rights and the Integrity Commissions are slowly starting to emerge and take action to inform and facilitate the organization of the citizens’ demands for information and compliance with their expectations concerning the use of responsibilities and funds by political organizations. However, there is still a long way to go to develop these capacities in our countries. As we know the education and organization of the civil society is a long-term process.

Finally, with respect to the fourth requirement—rewards and sanctions associated with the results obtained by those in charge of responsibilities and resources—the situation is no better than the above. Rewards for good results are unusual, and sanctions, if they exist, tend to be politically manipulated either to expose enemies or to protect allies. This is an area that requires substantial improvement.

In sum, the development of a culture and practice of accountability in our region confronts barriers concerning the inadequate identification of results that organizations must render, the lack of instruments to measure the achievement of these results, the weak practice of reporting and transparency, the fragile participation and preparedness of citizens to demand and interpret information on the performance of social organizations, and the insufficiency of the systems of sanctions and rewards. Naturally, countries in our region do not show the same degree of severity in all of these fronts and they are all making important efforts to improve in several of them. In fact, political authorities are putting the issue in the very first place of their agenda in response to both their own initiatives, the pressure of their citizens and the so-called encouragement of the international community. But as said before, this is a process that demands a long-term view, perseverance, continuity in government action and relentless support from the international community.

The challenge of promoting accountability at CABEI: I have very briefly touched upon the requirements of an efficient accountability system and the general conditions that tend to prevail in the region where we operate, for an organization cannot be objectively regarded independent of its own social environment. Indeed, the binary accountability-social environment poses to a multilateral development organization like ours a twofold challenge: a) to develop an internal system of accountability according to the international standards expected of an institution of its caliber, regardless of the environment in which it operates, and b) to contribute to the improvement of the conditions prevailing in this field within the beneficiary members. It poses, in other words, an internal challenge and an external challenge. Let me refer to the way we are confronting these opportunities for action.

CABEI's Internal Accountability Challenge: With regard to the internal challenge, first it is worth pointing out that structurally, as with many multilateral organizations, the Bank has a multilevel accountability system where units and divisions are accountable before the President and Vice-President, all of these before lenders, borrowers and a full-time Board of Directors, these in turn before the Assembly of Governors and the latter before the Presidents of the member countries. And because of its nature, the organization is accountable to the citizens of its member countries, especially the ones in which it operates. In addition, to complement the system, the Bank has an internal auditor answerable to the Assembly of Governors, and a firm of external auditors.

Now, regarding compliance with internal accountability expectations, as Quesnel has observed, accountability can be simple or complex. In simple accountability, the concerned parties are responsible for results under their control, such as the provision of a specific product or service—like a loan. In complex accountability, the parties cannot directly deliver the expected results, for these are also a function of other factors or contributions not under their control. This is for instance the case of results such as the development of the region, the reduction of national poverty levels, the increase in national literacy rates, the betterment of regional transparency and integrity standards and the like. None of our organizations, the World Bank or the IDB or even the Central American Development Bank can assume full responsibility for this final outcome. They are the results of the actions of many actors.

As many organizations, our Bank is subject to both simple and complex accountability. Simple accountability at CABEI is normally stated in contracts. The terms are relatively easy to identify and the indications for compliance are relatively straightforward. For instance, with borrowers, there is an accountability framework involving the provision of funds, their proper application, repayment and good administration of the financed initiatives. Loan contracts normally stipulate the prerequisites for disbursement, the required guarantees, the provision of information on the progress of the financed initiatives and so on. The same applies with lenders to the Bank, that is, with the sources of funding of the Institution. And concerning the stockholders (the members of the Bank), simple accountability involves the good use of the Bank's assets and the execution of specific indications by the Assembly of Governors. Besides, for the sake of all stakeholders, accounting and external auditing practices must follow international standards to give them reasonable assurance on the quality of the financial figures of the Bank, as was explained in the case of the IDB.

The situation is not so clear-cut with complex accountability. The Bank's mission is to promote the development and integration of the region. Therefore it finances initiatives that are supposed to render products and services associated with these outcomes. However, as explained before, because of their complexity the end outcomes of the Bank are often a function of other factors or contributions, such as the impact of government policy, the activity of other multilateral agencies, the participation of the stakeholders of the financed initiative and so on. Here the challenge lies in the capacity of the Institution to clearly define the expected development contribution of the initiatives it finances, and the measuring the contribution given other concurrent factors. This demands the development of a good monitoring and evaluation system capable of assessing the effectiveness, efficiency, economy, pertinence and sustainability of financed

operations. It also demands transparency in reporting and in making internal information available to stakeholders.

Generally speaking, it is evident therefore that the greatest difficulties lie in the management of complex accountability, and not so much in complying with simple accountability. Given this framework, what is the Bank doing internally to improve its accountability expectations? Let me mention very briefly some of our activities in this regard.

To start with, the Office of the Controller has been encouraging and leading internal initiatives for the Bank to pay greater attention to the complex accountability issues. I cannot say that the institution is free of simple accountability problems; probably no institution can make this claim. For instance, we are subject to the group or committee decision effect which tends to dilute individual responsibilities and therefore accountability to problems of sectional distribution of duties to provide a service or product. This also makes difficult the identification of accountable individuals or departments, especially when responsibilities are not clearly defined, to problems of proper reporting by borrowers, to the absence of a strong internal accountability culture, and so on. However, the Bank has developed internal systems procedures and regulations and what is required in my opinion is to pay greater attention to the application of these regulations to improve internal simple accountability.

The situation with the complex accountability front is more difficult for the Bank had not paid attention to this area in the past. So going back to the four requirements, the Bank has been working diligently in the strengthening of the definition of objectives, products and outcomes of its activities as well as on the measurement of their fulfillment. During the last three years it has been developing a Monitoring and Independent Evaluation System and has introduced the Logical Framework as a tool for designing, monitoring and evaluating projects. A number of medium-term program and some ex post project evaluations have been produced by the Office of the Controller in fields such as technical cooperation, poverty, roads and tourism. The Bank is also developing a system of detailed supervision and monitoring of the execution of projects and introducing the Project Completion Reports to support the accountability of both the Institution and its borrowers. With respect to the reporting and transparency requirement, we are now making the reports of the Office of the Controller available to a wide audience, internal and external, and starting to produce a Bank's Effectiveness Report on an annual basis. Concerning the demand from our stakeholders, we are hoping that by providing them with more information on the effectiveness of the Bank's operations, this will increase their appetite for accountability. And with respect to rewards and punishments associated with products and outcomes, less has been done, I recognize. Finally, in order to complement the Bank's internal accountability system, the Office of the Controller has introduced the COSO Control Framework and conducted a number of initiatives within this framework.

CABEI's external accountability challenge: As indicated above, the responsibility of the Bank does not end with its internal institutional challenges. Because of its role as a development institution, CABEI must also contribute to the improvement of the regional institutional framework or with what is called institutional capacity building. In this role, CABEI has been helping the countries of the region to improve the capacity of the supreme audit institutions to accomplish their important oversight function. In partnership with the IDB, the World Bank and the AAA Project

sponsored by USAID, CABEI has played a leading role in the support of the Central American and Caribbean Organization of Supreme Audit Institutions, providing them with funds and logistical and intellectual support to conduct a number of comparative studies in the region regarding the operation of the supreme audit institutions. The scope to help the countries improve their accountability framework is quite ample and we have understood that within this framework the supreme audit institutions play a crucial role. In their modern concept, the activities of the supreme audit institutions may have an impact upon the four accountability requirements I have mentioned—on the better definition of objectives, products and outcomes of governments as well as the instruments to measure their fulfillment, on transparency and reporting by official institutions, on education and information of the citizen, and on praise and punishment for good use or misuse of resources.

Finally in the avenue of promoting accountability in the region, the Bank is also undertaking a new initiative, which we are doing with the IDB, to support the development of evaluation capacities in the executive branches of our regional governments.

Concluding remarks: In closing, the demand for accountability has increased around the world in recent times. However, today the familiarity and use of the term are far greater than the actual practice of the concept. The country or public organization determined to improve this practice must take action in the four dimensions to which I have referred. It is the responsibility of professional communities such as the ones here represented to encourage the advancement of this process. CABEI has been making a contribution to this cause by endeavoring to improve its own accountability standards, as well as by supporting the strengthening of the supreme audit institutions of the region and soon, the development of the evaluation capacities of our governments. I take this opportunity to invite the multilateral development agencies to continue their support and coordination along these efforts.

The time I have been given for this presentation has come to an end. I have tried to leave you with a broad but complete picture of the role and activities in the field of accountability of the Central American Bank for Economic Integration. I hope that I have accomplished this objective. Thank you very much for your attention.

Fraud Detection and Control

Howard Davia, Author, and formerly U.S. General Accounting Office

Good morning. It is such an honor for me to speak to this very distinguished international group this morning. We don't have near enough time to discuss the complexities and diversities of fraud. So what I'm going to do is just touch on significant aspects of it that I think will interest you. Also I'll be speaking extemporaneously. I have no handouts for you today. But in lieu of handouts, in the last year I've had two books published on fraud which should answer all of your questions. The first one is *The Accountant's Guide to Fraud Detection and Control*. There are three parts to the book. The first part is fraud detection written for accountants, primarily. It also includes a section on fraud-specific internal control, not internal control as accountants normally know it, but internal controls designed to specifically control and/or deter fraud. It is quite different from generally accepted internal controls. The second part of the book was written by a gentleman named John Wideman who has a Ph.D. degree. He is a professional criminal investigator and has a private investigating practice in West Virginia. The third part was written by Patrick Coggins who has a Ph.D. in law. He is a professor at a Florida university. Part three deals with the law and fraud. If you are interested in a comprehensive package, I think you will find this book very interesting in answering many of your questions.

These are the two books. You are welcome to look at them. If you have questions, this last book, *Fraud 101*, was designed with a very specific purpose in mind. It was designed to teach people how to audit to detect fraud. We had hoped that universities would pick it up because at the present time, to my knowledge, few if any universities in this country teach the art of detecting fraud, and it is an art. I'll get into that in a few moments. This book was designed for college classrooms and for auditors. It teaches fraud detection from zero skill level to the intermediate level. It includes illustrations. Any fraud detection above intermediate fraud simply cannot be handled as a practical matter in a book. Advanced fraud is much too complicated. To do that you must have an interactive classroom setting in a class of no more than one-fourth this size (400) where the attendees and the instructor can act interactively and ask and answer questions.

Any general discussion of fraud must begin with something which I find convenient to call the fraud universe. The fraud universe is all the fraud that exists at any given time. All fraud. Over the last 75 years, various researchers have had a high interest in fraud, and they've examined many cases of fraud and compiled the statistics displayed on this slide. They have found that roughly 80 percent of all fraud is discovered by accident. You may be familiar with that statistic. It is extremely important that you remember it. Also, auditors discover 20 percent. The proportion, 80 percent/20 percent, whether it be 75/25 or something similar, has been corroborated over the years by various people many times. From my personal experience with fraud, I can tell you that the statistics are valid.

Why am I dwelling on statistics such as this? Because although these statistics are correct, they were interpreted incorrectly, leading to a colossal error in this country and probably much of the world. These are the sorts of statistics which have left victims everywhere. And be advised that everyone is either a victim or a potential victim; everyone has let his or her guard down on fraud. For example in this country, at the turn of the last century, 100 years ago, auditors assumed the primary object of an audit was to discover fraud. But that objective gradually changed as the years progressed, and by the 1920s or so, auditors, particularly independent auditors, no longer assumed their responsibility to detect fraud. It is difficult to determine why, but that observation and conclusion was obviously based on this sort of statistic. Why waste audit resources when fraud perpetrators can be expected to make colossal mistakes and expose themselves without auditing? People who have analyzed the fraud cases found that the reason why the fraud was discovered accidentally was because the fraud perpetrators were greedy, generally inept and made careless mistakes. And as a result of these observations a widespread complacency caused private and public entities to let their guard down.

Also, around the year 1920, independent auditors began to shift their attention from fraud detection to what they called a more important line of work: the verification of financial statement balances, due to corporation growth and public ownership during the industrial revolution. In fact, the government required that with public investment in corporations that their financial statements be certified as accurate. So independent accountants, known today as CPAs and outside auditors, began to shift their attention away from fraud detection to the audit of financial statement balances.

Speaking of statistics such as the 80 and 20 percent I've mentioned, there is an old story which describes statistics as being much like a bikini swimsuit. What they reveal is very, very interesting. What they hide is vital. Society interpreted the 80/20 percent statistics incorrectly!

To understand why, consider that the fraud universe is basically composed of three categories of fraud. Category 1 includes fraud which has been or is being prosecuted and details are recorded in the courts. Category 2 includes all fraud which has been discovered but not prosecuted. And Category 3 includes fraud which has not been discovered. The question is what proportion of fraud is in each category? While I'm explaining my opinion on that I want you to start thinking of percentages in your mind.

When those researchers I mentioned here examined the fraud universe and came up with the 80 percent/20 percent statistics, they assumed that all fraud was the same. But obviously, if there are three categories to fraud, and I don't think you can argue with that, then we have a situation similar to dead fish in a lake. The dead fish float to the top; the live healthy fish continue swimming below the water's surface. Similarly, the fraud which researchers had available to examine was largely committed by inept perpetrators. That's why they were caught—accidentally!

Let's talk about fraud discovered but not prosecuted. The question here is why does anyone ever discover fraud and not prosecute? There are very good reasons. One reason I've heard many times is that victims—corporations or governmental entities—want to avoid the embarrassment, the trouble, the legal costs, etc. But it is something much more meaningful which deters prosecution, and that is this: it is a matter of evidence. The clever fraud perpetrators leave little

evidence of their crimes. Contrary to general impressions fraud is rarely found substantially documented. Rather, fraud detection usually begins with the discovery of innocuous bits of evidence which only suggest fraud has occurred. It is the reactive auditor or criminal investigator's job to search for the necessary additional evidence which will enable prosecution. In many instances victims find themselves in situations where they are certain that fraud has occurred, but the evidence is not sufficient to assure conviction in a court of law.

The problem is, and this may surprise you, but in the United States, in our justice system, it takes a lot of evidence to move a fraud case to prosecution. It is first necessary to prove intent to defraud—a very difficult thing to do, and something that requires a great deal of training. It requires a sense of the legal requirements for prosecution. If you have a case that is not overly conclusive, most prosecutors will not accept the case for prosecution. Prosecutors are loathe to prosecute and lose. So as a result they choose only the best cases to move into Category 1. Usually they succeed. I'm telling you all this because the researchers who arrived at the 80/20 percentages only examined fraud in this category. Why? Because when a fraud case is prosecuted, all details or specifics of the crime—names, places, this sort of thing—become public records. So these cases are usually pretty solid. It is predominantly the people who are inept, careless, and/or greedy that leaves the abundance of evidence which enables prosecution.

Consider that if cases are prosecuted where the evidence is thin, there is a very good chance the perpetrator will not be found guilty. In our justice system it is innocent until proven guilty beyond a reasonable doubt. In those prosecutions of fraud in which I was involved, I've had many instances where federal judges have scolded us after trial because we didn't bring enough evidence to the court.

With fraud in Category 2—that is fraud discovered but not prosecuted—you can have a case where you are absolutely positive you have fraud. That case can be abundant with evidence in your judgment, and you as a victim want to prosecute, but if legal counsel recommends no prosecution, you don't prosecute. I usually recommend this to fraud auditors to whom I lecture. Fraud only becomes fraud when a court of law, a judge or a jury determines that a defendant is guilty of fraud. Up until that time he or she is presumed innocent. And regardless of how strong you may think a case is, you must never disclose details of that case. If you discuss details of a case and you say, "John Pablo is the suspect," you will have defamed that person. If you defame someone, that suspected perpetrator has cause for a legal action against you. He can sue you for millions of dollars. Accordingly, all cases in this category must be kept confidential. And, most importantly, these people who research fraud, who determined the 80/20 percentages, had no opportunity to examine fraud in Category 2.

I personally have worked on Category 2 fraud and I've had many cases where we were confident we had fraud but we could never bring the case to prosecution. Details of those cases will have to be secret and never revealed.

The makeup of fraud not discovered, which comprises Category 3, is obvious. Anyone perpetrating a fraud is not likely to tell you about it. Researchers cannot examine those cases to categorize them in any way. And they could never be included in the 80/20 percentages.

One of the secrets to getting fraud from Category 3 to Category 2, and from Category 2 to Category 1, are trained people who know how to find and accumulate evidence. Most auditors don't know how to accumulate evidence. They have no paralegal training. Many criminal investigators can't even do it. But the secret to increasing the trend in the upper categories is training in fraud detection and discovery and in accumulating the evidence you need to convince a judge or jury.

I would like your opinion at this point. Given everything I've said here, and I hope you've understood it all because it is very important, what percentage of fraud do you think is in Category 2? What do you think it is? Is it 10 percent, 20 percent, 50 percent, 75 percent, whatever? Do you understand the question? How many people think the fraud in Category 1 is 50 percent of the universe? Less than 10? Very good. I share your views. Let me say this. The two gentlemen in the front row have said 10 percent. In other words, when they say 10 percent what they are saying is that 90 percent of the perpetrators are smart enough not to leave evidence around. They plan their crime, they don't leave evidence around, and they don't get foolishly detected.

Now how many agree it is around 10 percent? Raise your hands please. How many believe 20 percent? How many believe more than 20 percent? How much? Thirty percent? Okay. Anybody else have another opinion? Less than one percent from the gentleman back there. You're tough. I tend to agree with 10 percent, but to avoid arguments I have chosen to go with a conservative 20 percent. The important thing to consider here is not the accuracy of the Category 1 fraud percentage, but that regardless of which percentage is closer to being correct, there is undoubtedly a huge percentage of fraud ranging from 80 to 99 percent—based on our discussions here—that is unknown or hidden from public view and not available to researchers speculating on the nature of fraud.

Having decided that Category 1 fraud is 20 percent of the fraud universe, I am comfortable with that percentage. I feel it is reasonable to assume that Category 2 and Category 3 fraud are around 40 percent each. It will never be possible to know what the percentages are with any degree of certainty since it is not possible to ever know what amount of fraud is in Category 3. However, it appears reasonable to assume that the fraud cases in both categories vary in the amount of evidence that exists to reveal their existence. If so, it is possible to visualize all cases as ranging from situations where there is no detectible evidence lying at the bottom of Category 3, to cases with the most evidence positioned at the top of Category 2. If so, we can assume, in a world where there is little proactive fraud auditing occurring, that first detection of evidence occurs somewhere at midpoint.

Incidentally, I don't mean to offend the gentlemen here, but women seem to be better at detecting fraud. They seem to have an intuition that serves them well. We had a course we offered at the University of Wisconsin where we discussed case studies. We were so sure that the class would not guess what the fraud was that we offered \$20 to anyone who first came up with the answer. One woman who was in the internal audit department of a large U.S. corporation won \$40 that day and we stopped offering \$20 rewards for the first answer.

For your information, I estimate that at least 10 percent of the resources available to governmental agencies are lost to fraud. I mention this because entities, both private and public,

look upon internal auditors as an overhead expense which they attempt to hold to a bare minimum. Unfortunately, in doing so, they minimize a valuable resource for combating fraud. My point is that a small additional expenditure for an internal audit staff dedicated to detecting fraud can have a significantly greater payback.

Moving on to a new topic, I think you'll agree there are basically two kinds of contracts. We call them 1) sole-sourced and 2) advertised. You're all familiar with them. Which type of contract would you say is best to prevent fraud? Contrary to popular opinion, the correct answer is number one.

Most businesses and most governments, require advertised contracts, as you know. The assumption is that it gives a free opportunity for the marketplace to compete, and eliminates any corporations or companies wishing to commit fraud. Yet most of the major fraud with which I've encountered in my career has involved competitive advertised contracts. Competed contracts allow a fraud perpetrator an opportunity to get the contract award. They simply bid the lowest price. With fraud intentions initially profit is not a concern. When fraud is intended, the perpetrator's first step is getting the contract award, and that's a very simple matter—just bid the low price and you get the contract. The second step occurs when the contracting organization changes the contract and opens the door for fraud.

How is that done? I can remember a situation where the government wanted to build a building out in Ohio, one of our states. The contract was advertised. The lowest bidder was awarded the contract. Now keep in mind, most fraud involves conspiracy—two or more people acting together. Oftentimes one party works for the contracting company in an influential position, and the second is the perpetrating contractor. What happens is this. The perpetrating contractor gets the award by bidding a low price. Let's say for constructing a building. Then soon after the contract progresses, architectural changes to the building are made.

In the case of the Ohio building I just mentioned, a short time after site work had started, but before above-ground building construction had begun, the future tenant of the new building decided that the laboratories in the new building had to have a northern exposure. This required a contract change reorienting the building approximately 90 degrees.

How does a change such as this involve fraud? It all depends upon whether or not the bidding contractor had reason to know in advance that the reorientation would occur. If he did, he could accomplish his underground site work in such a manner as to accommodate the expected change in the position of the building rather than building to the original specifications. And, after the contract change was issued to require a new location, he could submit a false claim for the cost of installing underground utilities to the original location as well as for the new location.

In my book *Fraud 101*, I included an illustration of possible fraud which had to be disguised for obvious reasons. It involved the design and construction of a new missile. The original contract was sole source. Eventually, the contractor had evolved a reliable missile design, and the government decided to advertise for a production contract. The design contractor, realizing that he would have difficulty getting the production contract in a competitive situation, bid what he considered to be a less than cost price to get the contract award. He was successful.

Prior to production of the missile, the contractor began to consider ways and means of cutting production cost sufficiently to make a profit. Numerous changes were made to save production costs by reducing quality components. One change made was the substitution of lead plating for gold plating. None of the contractor's resulting savings from the changes were applied to reduce the contract's price. A government officer approved all of the "no cost effect" changes that served to turn the contractor's price bid into a profit.

BHARAT B. PANDIT (India): Wasn't there someone that had to authorize the specification change on the missile contract? The same for the building, didn't someone have to verify that the underground work was actually done before the bills were paid?

HOWARD DAVIA (United States): On the missile contract the contractor was required to obtain approval for all engineering changes from a designated government officer. The officer approved all changes as they were submitted by the contractor. You are free to speculate on why he approved them. As for the building, a contractor's claims for things such as the underground work are normally made long after the opportunity to verify the work is possible, for example after the above-ground construction is considerably underway.

How do you detect fraud? Detecting fraud is much like fishing. When fishing, a fisherman must first decide what type of fish he or she wishes to catch. Each different type of fish requires different search methods or recognition criteria. What works for one type of fish, or fraud, is not likely to work for another type. What works for saltwater fish will not work for freshwater fish. What works to catch trout will not work when fishing for bass.

Just as in fishing, there are different types of fraud, each of which requires a different detection method. Just to mention a few, there is duplicate payment fraud, multiple payment fraud, defective delivery fraud, defective pricing fraud, contract rigging fraud, shell fraud, defective shipment fraud and unbalanced bidding fraud. Definitions of each and detection methods are included in my recently published books.

I had a case study that I had hoped you all could work on. But we are running out of time. So I'll just describe it to you. It involves a simple illustrative case from my experience.

The auditors had decided to search for defective delivery fraud. The first step taken was to select at random a recent payment for about \$5,000. The contractor's invoice was obtained from the files. It read, "to drain water tank, clean all rust and scale from interior, paint the interior surface with prescribed waterproof coating, and refill the tank." Traditional auditors performing a fraud audit would normally proceed immediately to the files supporting this payment. Requisitions, purchase orders and receiving reports would be examined. If no exceptions were noted, traditional auditors would take no exceptions to this payment. However, trained fraud auditors work differently.

The fraud auditors searching for defective delivery fraud did not examine any files underlying the \$5,000 payment. Instead, they engaged a technical specialist who was qualified to examine the work performed on the water tank.

Upon visiting the site of the water tank it was discovered it was on top of a tall building. The building manager laughed as he asked how the “auditors” were going to inspect it. The auditors asked the technician with them to perform the inspection.

There are several other frauds that could have occurred here. The technician could have climbed the ladder, found that the job was done, done perfectly, all in accordance with the invoice from the Agua Company. But Agua may not have done the work. Smith Brothers Company did the work. So if you pull the invoice and you’re looking for defective delivery fraud, you’ll find no fraud. A search procedure for multiple payee fraud, however, would find that another company did the job.

I believe I’ve run out of time and some people are in desperate need of coffee. Let me say thank you very much for being so attentive. I hope you buy the books. I think you will learn a great deal from them.

World Bank Investigations of Fraud and Corruption

Stephen Zimmerman, Corruption and Fraud Investigations Unit, World Bank

First let me begin by saying I do not have a book to sell so you'll have to listen closely to what I say. I am the Senior Counsel for the Fraud Investigations Unit of the World Bank. The World Bank established our office approximately two years ago. And what I'd like to do today is tell you how the World Bank has set about trying to investigate allegations of fraud and corruption in its projects.

The focus of our office is on World Bank financed projects. What that means is we focus on World Bank employees who are involved in fraud or corruption, World Bank contractors—companies that seek contracts financed by the World Bank or employees of member governments who are involved in fraud and corruption in World Bank projects.

Mr. Wolfensohn is President of the World Bank and back when he took office in the late 1990s and again not too long ago he made it clear that it was his goal that the World Bank should have the same attitude in fighting corruption within the World Bank as the World Bank was asking its member countries. So often as the World Bank was funding projects around the world in many of your countries they were also trying to get countries to implement better anti-corruption procedures in their countries—providing money to do so. Well, the view was that the World Bank should do the same thing. The World Bank should look inside and try and clean up its own act. And that was the impetus, that was the push, behind setting up our office.

What is the purpose? The CFIU or the Corruption and Fraud Investigations Unit really has two primary purposes, both of which I think are of interest and critical to your work here during this conference. First is the actual investigation of allegations of fraud and corruption. I'll talk about how we do that and how the World Bank gets these allegations and then how we process them. The second is preventing and deterring fraud and corruption.

Now obviously first and foremost, prevention and deterrence can be done by investigating and by coming to a satisfactory conclusion in a particular investigation. That creates a deterrent. In addition to that, now that our office has been in existence for a fairly significant period of time, we're beginning to develop methods of preventing corruption. We are working with the operational side of the World Bank, and that is the people actually loaning the money, to try to come up with better ways to detect fraud and corruption.

Who are we? Who are the people that make up our office other than myself? The office is composed of lawyers, like myself. I am a former federal prosecutor in the United States. We have other former U.S. federal prosecutors. We have other former prosecutors from other countries

including England, Australia, Panama and different parts of the world. The office also includes investigators, and when I use the term investigators I mean people that were trained as investigators prior to coming to work at the World Bank. These tend to be criminal fraud investigators, for example from Scotland Yard, the Serious Fraud Office in London and from the Australian Fraud Police. We recently had a fraud inspector join us from Zimbabwe. We have a fraud investigator from Papua, New Guinea. So we have a fairly diverse group of investigators with a fairly diverse view of the world.

From the World Bank's perspective, and I suspect from your perspective, it is important because fraud and corruption, while similar, does take on a different face in different parts of the world. The United States' view of fraud and corruption and the level of tolerance and the methods of fraud and corruption in the United States and indeed in the Western world are often different from other countries where the economies are still developing. The ability to commit fraud and corruption is different in those countries and at the World Bank obviously we deal in that environment every day.

How are we set up? We have divided our office into regional teams. The World Bank divides the world into six regions—among them, Latin America and the Caribbean, Asia and so on and so forth. The Bank has its own little acronyms which are unique to the Bank. Our office parallels those regions. I am the person in charge of Latin America and the Caribbean and I have a team of people that work for me dealing with any allegation of fraud and corruption in Latin America or the Caribbean.

By coming from a number of different backgrounds we also bring to the table a number of different investigative methods. I'm a firm believer that if we took out that case problem that Mr. Davia tried to get to but ran out of time, and we put it before the crowd, we'd come up with 10, 20, maybe 200 different methods of investigating that fraud, not any one of which is correct. I think all of you would agree that there is no single answer for discovering fraud or corruption. It is going to depend on the circumstance. It is going to depend on the country. It is going to depend on the players. And there are many different approaches to coming up with a resolution. Our goal is to bring these different perspectives to bear. How best to analyze the documents? What should one be looking for? What are the red flags? How best to interview witnesses? Who to interview? When to interview? Who to interview first? By having a diverse group of people coming from different backgrounds, we believe we bring these different perspectives to bear at the World Bank.

Why do we fight corruption? Obviously it is bad. It is simple to say. But what are the real reasons? Why does the World Bank care about fighting corruption? One, the World Bank is in the business of loaning money. I suspect, looking at the list of participants, that the majority of you come from countries that have significant World Bank loans. And by significant I mean that your country owes billions and billions of dollars to the World Bank at this point. Those loans were made for very specific purposes—to build a dam, to build schools, to improve a judicial system. Obviously it is in everyone's interest to make sure that that money is used for the purpose intended. Corruption ensures that some significant piece of that money is not used for that purpose.

It's also critical to the fight against corruption everywhere in the world that we promote greater transparency, not only within the governments but also within the Bank. It is the Bank's

view and the Bank's attitude that we want to maximize transparency in what we do. If for no other reason, transparency is often the best tool to fight corruption. Let all look inside and see how transactions are conducted.

Of course corruption and fraud are crimes, and were we not to fight fraud and corruption at the Bank we would simply be supporting illegal activity. Different people take different views. Sometimes what is a crime in the United States may not satisfy the legal requirements in another country. You've heard a good bit this morning on the legal parameters of fraud. I'm a former federal prosecutor. I spent many years prosecuting fraud cases. I'm very familiar with how to prove fraud in the United States. It is not the same way you prove fraud in Panama or in Argentina or Zimbabwe. And every country has to apply its own standards.

At the Bank we've created an internal system to deal with allegations of fraud and corruption apart from the judicial system within the country where the activities occur. Practice what we teach. This gets back to the comment I began with which is the Bank's view that if we are going to tell countries that we will only loan you money to fight corruption if you in turn use that money to fight corruption, then we at the Bank better be fighting corruption as well. We at a minimum have an obligation to do what we ask others to do—to do in practice what we are asking other countries to do.

Now what are the types of fraud or corruption that we see? One is soliciting or requesting something of value to influence the action of a public servant in the execution of a contract. It can be anything of value. It doesn't necessarily have to be a bag of money. It can be a house. It can be a car. It can be a job for a child. Anything of value would constitute corruption. It can also be the payment or the receipt of a bribe. That is what we all think of as the simplest and most straightforward type of value.

Another is to receive something of value in exchange for services or favors. It may not be for a contract. It may simply be for some type of other assistance, some other service, something else of value in exchange.

Commission is a term in the international contracting world which has come to be sort of an umbrella. Commissions run the spectrum from what I would deem a legal commission, a payment for a service that is of the value for which the money was paid, to a term simply used to hide the payment of a bribe. If a commission is paid for no other purpose than to influence a government official to award a contract or a World Bank official to award a contract, then a commission is not a commission. It is a bribe.

Distort the requirements to steer contracts: This gets into the category of which Mr. Davia spoke—the advertised contract. I would take a bit of a different view. I think that sole-sourcing contracts, at least outside of the United States, is an area ripe for corruption. We see it all the time. I don't think sole sourcing or advertised contract, one or the other, is any less likely to be subject to corruption. In advertised contracts, time and time again what we see at the World Bank is the requirements. In World Bank parlance it's called the terms of reference or the TOR. We say, "We need a road from point A to point B." And what happens is someone comes along and writes a requirement that says, "That road has to be eight feet wide and it has to have all these different

requirements.” And lo and behold, when you apply those requirements in the awarding of the contract there is only one company in the whole country that qualifies. That’s steering the contract.

We had a situation where somebody needed a consultant hired in a Caribbean country—in a French- and English-speaking Caribbean country. The terms of reference for this consultant had to do with accounting and various skill sets. There were clearly going to be a lot of people in the country that could do the contract—except for the last requirement that said that the person had to speak Spanish. Now there was absolutely no reason for that person to speak Spanish. This contract was not in Venezuela. It was nowhere near South America. But lo and behold, five people applied for the job. Only one of them could speak Spanish and it turned out to be the brother-in-law of the director of the project. Very simple. No one looked, or if anyone did look, no one cared.

Common schemes: I’ve touched on a few of these. What do we see at the Bank? What kinds of fraud and corruption do we see? One is the use of funds companies secretly owned. Now I want to distinguish between a front company and a shell company. These are terms that we throw about all the time and we see them in the newspaper. They are different. A front company is a real company that is hiding a second company. Company A wins the contract, but company B is the one building the contract. When you look at company B you find out that company B is owned by the director of the contract. Company A is the front contract. And when you look at the bidding documents you have no reason to look any further. If you audit only to the level of the first contract, you do not look to see who is actually doing the work. You would never know to look at company B. Even if you got down to company B, you’d have to say, “Well who owns company B?” And it is only then that you realize that there is a fraudulent activity going on.

Bribes or kickbacks: We’ve talked about this. This is usually the most common form where it is simply hidden in the form of a commission often through a subcontract with another company. It is the payment of money for something to which you are not entitled.

Bid rigging: That is a situation where a contract is rigged to be awarded to a particular company.

Use of loan brokers: Loan brokers are often the ones who are doing the bad stuff. A loan broker again is a term of art. It is a word that we have found hides the illegal contact. It makes it sound like they’re really doing something. Well, they’re brokering the loan. There must be some genuine activity of value that they are contributing. And sometimes there may be. Sometimes they may really be contributing something of value. But more often the loan broker is the middleman. The loan broker is the one who goes to the company and says, “If you pay 10 percent of the contract, I’ll make sure you get the contract.” And he turns around and gives a piece of that 10 percent to the decision maker. And that’s how the contract gets awarded.

Fraud by contractors: This can take any number of forms. We see, as Mr. Davia describes, situations where they simply don’t do the work that they’re supposed to do. The road that was supposed to be built from point A to point B is awarded to that one company that could build the road eight feet wide and six feet deep. Well, they didn’t even bother to build the road, or if they did build the road, it only goes from point A and halfway to point B.

Trust fund frauds and abuses: For those of you who deal with the World Bank, trust funds would have some significance. That is a unique source of money the World Bank has apart from its loans that is also subject to much abuse.

Theft from local accounts and abuse of project assets: Similarly, this is somewhat unique to the World Bank. The World Bank in many projects will open up a local account over which there is less supervision. We rely much more on the internal audit function of the projects to identify fraud or corruption.

What is the Bank doing about it? It adopted two very specific anti-fraud and corruption provisions. It made its own law. The Bank has its own privileges and immunities. It acts like a government of sorts. Therefore, it has to rely on its own rules and regulations. Now what it has tried to do is create its own body of anti-corruption law. And the first step is to adopt the definition of fraud and the definition of corruption. These are the rules by which I live, what I'm constantly trying to scribe to prove. And as a lawyer I rely on the words. If I can prove this occurred in a World Bank contract, then I can take action.

Corrupt practice: This is what we've been talking about all along here. It means the offering, giving, receiving or soliciting anything of value to influence the action of a public official. You have to give or offer something of value, or get something of value, and it has to be for the purpose of influencing an action. Now it doesn't have to be to specifically get a contract. It could be for any number of things.

Fraud: How does fraud differ from corruption? They are two separate concepts. Fraud is the misrepresentation of facts in order to influence a procurement process. We had a situation recently in South America where a company bid on a particular consulting contract. In support of their consulting contract they gave five resumes of the leading experts in the field. It looked great. If you look at the paper and look no further, they should win the contract. Dig a little deeper, none of those experts had ever heard of this company, let alone signed up to do the contract. It was an out-and-out misrepresentation in order to get the contract.

Investigation: How do we do our job? How does the World Bank investigate fraud or corruption? I'm not going to stand here and tell you that we have some magic weapon or some magic tool. As all of you that have ever done this probably know, the most important thing is attention to detail and the willingness to dive into the documents and do the hard work. If you're coming here looking for the magic question to ask or the particular document to look at, I can't give that to you. It is a lot of hard work, diligence and persistence.

Who do we investigate? Confidentiality and anonymity are concepts critical to how we do our investigation. This is generally true in any investigation where peoples' livelihood or in some cases safety is at risk. I'll talk about each of these individually.

How do you report it to the Bank? This is my chance to do a bit of a sales pitch, not for my book but for my work. If any of you come across fraud or corruption that you believe touches on the Bank I urge you to get in touch with me or someone in my office. First, this applies to Bank

staff, but it would apply outside the Bank as well. Write this number down: 202-458-7677. If you call that number it will ring in our office and someone will speak to you. We also have a pager number that's kept 24-hours a day. We have an e-mail address, a hotline number. The hotline number is accessible from anywhere in the world. Call AT&T and it's a collect call. Or, if you happen to be in Washington and wandering the halls of the World Bank and you've gotten past our crack security, come up to our office on the eighth floor. Again, that hotline number can be called from anywhere in the world.

The majority of allegations we receive obviously don't come from within the United States. They are going to come from overseas. They come from auditors. They come from people who are simply interested. They come from people involved in projects. And we do have a Web site. If you go to www.worldbank.org and wind your way through and you type in the word investigations, eventually you are going to get to our part of the Web site. Right now, unfortunately, it is only in English, but we're hoping to improve that soon. When you go to that Web site you can type a complaint right on the Web site, e-mail it and it goes directly to our office. Or for those of you who still own stamps, you can write a letter and send it to us by mail. Rest assured that we will look at every allegation, any information you send us. What happens when it gets there? We divide them up by regions. So if you send anything having to do with any country in Latin America and the Caribbean it is going to get sent to me to figure out what to do with that allegation.

What gets investigated? Everything gets what we call a preliminary inquiry. Now all of you know sometimes the allegations can be overwhelming. Where do you look, how do you do it? How do you parse through and decide what to look at? You've got to separate the wheat from the chaff, as we say in English. What we do is we take an initial look, and in this case it is up to the regional team leaders. I would take a look at any allegation, any statement of any wrongdoing in Latin America and the Caribbean. Any allegation of corruption would come to my desk. I take a look at it and I'm going to look for two things. First I'm going to look for truthfulness. Does it look like it's true? As shocking as this might be, sometimes we get allegations that are not true. Indeed sometimes we find that we're simply getting an allegation from the bad guy trying to make the good guy look bad. So we try to figure that out at the front end.

Second, we try to figure out if this really involves fraud or corruption as we have defined it, or is this something else? For example, the Bank has extraordinarily detailed and important procurement rules. If this appears to be a problem with the manner in which a particular item has been procured or a contract has been let, if there is not fraud or corruption, if there is no misrepresentation, if there is no incidence of giving something of value, then we send it over to that part of the Bank that deals with that issue.

And last but not least, presumption of innocence applies throughout the course of the process. We try very hard to maintain that. We understand that any time an allegation is raised against someone it is of critical importance to that person. It may or may not be true, but the mere fact of an allegation is of critical importance.

Confidentiality and anonymity: Those are concepts which we find are critical if you are going to investigate fraud or corruption. Anonymity: If someone wants to contact the World Bank and

remain anonymous, we're still going to listen. We're not going to hang up the phone. We're not going to delete the e-mail. We will listen. Now, that being said, it is a lot harder to investigate an allegation of fraud or corruption if we don't know who is making the allegation. We have no way of evaluating the credibility of that person. Who are they? How do they know about what they're telling us? So it's going to be much harder for us to proceed and to validate the allegation. So what do we do? First of all we use the art of persuasion to try and get the person to tell us who they are. We try to get as much information from them as we can, and I assume you would do the same if you were receiving information in connection with an investigation that you were conducting.

What we try to do is get them to talk to us confidentially. When we say confidentially we mean that we agree never to disclose that person's name or the information they provide to anyone outside of our office. We won't disclose it. Sometimes that means we can't proceed. So be it. We will not violate a promise or an obligation made to someone. We will not disclose it within the Bank or outside of the Bank. We will investigate any anonymous complaint. We will never put anyone at risk. But we will always try to find out as much information about the person as we can. If we do promise confidentiality, we always assume that the person is acting in good faith. Of course sometimes you have the situation where someone is not acting in good faith, and then we have to act accordingly.

The agreement will extend both within the Bank and outside. Let's say for example that you discover some activity and you're a confidential witness. Ultimately you refer it, as Mr. Davia talked about, to a U.S. prosecutor or a prosecutor in your country. They want to know who the witness is. Our position at the Bank is that we won't disclose that information to the government, that we have an obligation to the person who provided the information. Otherwise we'd be out of business. No one would talk to us. And of course we won't tolerate any retribution against the person and we will act accordingly.

What happens at the end of the process? What does the Bank do? If there is a staff member of the Bank who is found to have engaged in fraud or corruption, Bank rules adopted about two years ago require that that Bank staff member be terminated. They have to be fired. It is mandatory. The second action that can occur is a criminal referral. You call up the prosecutor in the country where the activity took place and say, "Hey, we have a staff member who took a bribe. We'd like to refer them to you. We'd like you to investigate them now and to begin a criminal prosecution against them."

A contractor: This is the bread and butter of our work. This is where it all happens—the companies that come along and one way or another engage in fraud or corruption to get or keep or enlarge a contract. Sometimes it is to get it; sometimes it is the add-on. We never know. There is a matter now in a South American country which has gotten significant press in the local papers. Three companies bid on a World Bank contract. The first company is the lowest bidder by about \$800,000 on a \$5 million contract—not an insignificant sum of money. So now everyone is interested in giving them the contract. Well, lo and behold, the company is disqualified for not following World Bank rules. Now in the World Bank situation, it is the local government officials who make that initial decision. Well, then we drop down to the second company. The second company, for reasons that are not quite clear, withdraws from the bidding—pulls out. "We

changed our mind. We don't want the contract." So now we're down to number three. Number three says, "Sure. We'll take the contract." They get the contract. And everyone is happy until we do a little due diligence and ask, "Who owns company number three?" It turns out it is the brother-in-law of the president of the country.

Now, on its face, what's your reaction? Awfully mysterious. There's a big uprising in the press in the country. So what do we have to do? We have to undertake an investigation. I use this as a model of how we go about it. We have a parallel investigation by the government. The government of the country is doing its own investigation. And then there is the World Bank on this side. We're trying to do our own investigation and we don't have the tools of the government. I used to be a government prosecutor. I know the power of a government. I don't have the ability to subpoena documents or to make people talk to me. However, I have the power of the World Bank which sometimes can be quite forceful because they want the World Bank's money. We have to analyze the documents to try to figure out what happened. Was the bidding process appropriate? We have to talk to the witnesses, to the losing bidders. Do they feel that there was corruption in the project? And then we have to draw our own conclusions. And at the end of the day, if we make a finding of fraud or corruption, then we have three options available to us.

First, we can again refer it to the government. We can provide them with the information that we have and hope that they will prosecute.

Second, we can do something which is a Bank term called mis-procurement, which in essence says, "You guys didn't follow the rules." It does not necessarily require a finding of fraud or corruption. It is a finding of not following the rules and we at the Bank say, "Fine. If you don't follow our rules, we want our money back. It is \$5 million to build that building. You give us our \$5 million back." Or we can say, "We owe you \$2 more million and you've got to pay for the rest of it."

And then thirdly is our own internal process. That is the Notice of Debarment. What the World Bank has done is set up our own court system within the Bank. It is a debarment process. And it is run by a Sanctions Committee. Let me explain to you how this works. If we make a finding in our office of fraud or corruption and we take that finding and we turn it into an indictment, in Bank terms it is called a Notice of Debarment. That Notice of Debarment will explain to all who read it what our findings are. That Notice of Debarment then goes to the company for their examination, and the company is given a chance to respond. Once the company responds in writing there is a hearing. We have an actual oral argument where the company is represented and our office is represented as the prosecutor from the Bank. Then the Sanctions Committee will decide what to do.

The Sanctions Committee can suggest a sanction anywhere from a simple reprimand to a finding of no guilt to permanent debarment. Permanent debarment means just that. It means that that company and the majority shareholders of that company are not permitted to do business again with the World Bank. Their names are then published on the World Bank Web site where you can look up the names of all the companies and owners who have been debarred by the Bank. And it is the hope of the Bank that over the years we will develop a relationship with the other multilateral banks and other institutions and share this information. Thus a company that is debarred from one

may be automatically debarred from another, eliminating the ability of those companies to do business in the international multilateral banking community.

What if it is project staff? By project staff I mean someone who doesn't work for the Bank but is working in one of those offices that is funded by the Bank. They are usually paid by the government. Here, our options are truly more limited. There's not much we can do. We have to leave it up to the member governments. We make a referral to the member government and say, "Please, Mr. Justice Minister, investigate this person. They should be indicted. They should be charged with fraud." We still have the ability to declare mis-procurement which is not really the responsibility of my office. It is the responsibility of the procurement people in the World Bank. But we can say, "Look, that project employee was taking money or was steering contracts, was paying bribes. We're not paying. It was your responsibility to prevent that. We are not going to finish paying for this project."

The Bank has the ability to suspend a loan. In other words, a project is usually part of a much larger loan. The Bank could choose to stop the loan or annul the loan—end the loan completely. Obviously we can request the removal of a person. If not prosecuted, if not charged, at a minimum that person will be removed from office.

Finally, the future. Where do I see this going? Where does our office see this going? The first step is outreach—outreach to our staff, the Bank staff, to help educate the Bank; outreach to our members, and by members I mean the countries that make up the World Bank, to explain to the governments what the World Bank is doing; and then outreach to the business community. That is really what I'm hoping to do here today, to tell you what the World Bank is doing and ask for your help if you find information or evidence or allegations of fraud or corruption that in any way touches on the World Bank. I want to at least give you a place to go—give you someone with whom you can share that information, someone with whom you can work.

Most critical is to use our lessons learned to improve prevention. In every case, with every allegation, every time you find some fraud or corruption, you learn a little bit more. What we want to do is put that into practice and try to change the way the Bank does business to minimize fraud and corruption in Bank projects. We hope that in the future when people come to the table and they see it is a World Bank project they will say, "That's good news because the playing field will be a little more level than in other situations." With that I will end early.

GIOVANNI MARTINEZ LIZARDO (Honduras): My question is related to the allegations of corruption. As an ex-prosecutor for the United States, what do you think is the most feasible path for an oversight agency to follow in investigating an anonymous allegation?

STEPHEN ZIMMERMAN (United States): Again, there is not a particular way or a specific way I would say to investigate an anonymous allegation. First of all, at the Bank, and similarly when I was a federal prosecutor, we didn't have particular requirements for an allegation. We take what we get. There is no minimum amount of information that must be supplied. However, that being said, what do we do when an anonymous allegation comes in? How do we investigate?

Before we engage in a public investigation, we look at the individual facts to verify their truth. If it is an anonymous allegation we will go to much greater lengths to verify some of the information within that allegation before we proceed with a full public investigation. That could be damaging to people who are being accused who may have done nothing wrong.

So my advice in the situation of an anonymous allegation is, first and foremost, don't simply throw it away, but look at it a little more carefully. Look at the information that is included within that anonymous allegation. See if the simplest facts are true. Are the dates accurate? Don't simply investigate the facts that are the most critical. Investigate the facts that seem less critical because they will help you determine whether or not the anonymous person is really telling the truth. Use insignificant facts to see if there are consistencies within the allegation. Once you've done that, if you're satisfied that it appears to be sufficiently consistent and truthful, then you proceed, but much more cautiously with an anonymous investigation. That is our norm. We move forward in a much more cautious manner and try to gather that information which is public in such a way that it will not publicize our investigation until we satisfy ourselves that this allegation is really worthy of a full public investigation.

Those are the steps that we take. I think they should be treated differently than an allegation where you know the author, although the same rules apply. Many times we know the person making the allegation and it also turns out to be false. It ends up being a manipulation of our process. So there is no magic answer beyond that.

LUIS SOTO (Dominican Republic): What I would like to know is if the World Bank has developed some kind of mechanism to transfer the information to other governing agencies in different countries. Is that experience being shared with other institutions?

STEPHEN ZIMMERMAN (United States): The question has to do with the transfer of fraud or corruption information to other countries and entities within the country. There are a couple of issues here. First of all, let me take the simplest situation. When the Bank makes a formal finding of fraud or corruption and it results in a debarment of a company, that is always public. It will always be on the Bank's Web site. When we get to the level of imposition of sanction, that process is ultimately going to result in a public acknowledgement by the Bank of fraud or corruption by that contractor and it will be posted on the Web site. That's the easy situation.

Now let's get to the harder situation where let's say we find an employee of a local government has engaged in fraud or corruption and we make a referral—in other words we hand some of that information over to the government. What the government chooses to do with that information is left up to the governments, it is not up to the Bank. As you know, the Bank deals on a government-to-government basis. Members of the Bank are the government or the countries themselves. So we share information generally from the Bank to a government, not to NGOs, not to other organizations in most situations.

Let me say that the reverse is also true. If you as an auditor are auditing a project that has some connection to the World Bank and you simply have a question about how the World Bank works, where you get information on a World Bank loan, there is a surprising amount of public information about World Bank loans. You can go to the World Bank Web site and for the most

part type in a country name and get a list of every loan that the Bank holds for those countries. So if your work touches on the World Bank I encourage you to try and get whatever information you can out there about the Bank. And if you have trouble finding it, call us up. We are there to help.

All that being said, there is one other important point. The World Bank has the protection, has statutory privileges and immunity which, in essence, is diplomatic immunity. As a result, the World Bank tends to react to requests for information and sharing of information like a government. It does so, but it does so at its own peril. So there are times when the World Bank will not share what it finds, at least not formally. It will not provide information to private entities or private organizations when it makes a finding of fraud or corruption. But we are working to try and improve that because we are aware of our responsibilities.

DONALD SHERK (United States): Could you please explain the interaction between your unit and the inspection panel and OED, the operations evaluation part?

STEPHEN ZIMMERMAN (United States): Our unit operates completely independently of OED, IAD and any inspection panel. OED is the office within the Bank with a primary goal of evaluating the effectiveness of a project. If either OED or IAD, which is the internal audit department of the Bank, makes a finding or determines that fraud or corruption has occurred in a Bank project, they are supposed to provide us with that information. Our office, the CFIU, exists independently of the other units within the Bank. Our office reports directly to the President of the Bank. We sit sort of out to the side. I have a great deal of independence. It is the hope that as IAD does its audits or OED does its evaluations or the project managers get involved in projects and do mission visits and there is an allegation of fraud or corruption, then that allegation should be referred to us to evaluate. We may take a look at it and say, "There is simply not enough here. There is not fraud or corruption. You guys need to take whatever action you deem is appropriate outside of the fraud and corruption rules and the sanctions process within the Bank." But they exist independently. We're fairly new. We're still learning to work with them. But the audit process goes on.

There is, in my view, a difference between an ordinary audit of a project which is designed to look for problems with controls and general monetary issues, and a forensic audit or a corruption audit that is really designed to look for corruption and fraud. With the corruption audit you've generally got to dig a little deeper. What usually happens is the Bank's audit office or the Bank's evaluation office or the project managers will see a red flag. They'll see something that looks odd. They'll see double billing. They'll see an invoice that seems to have no validity—some indicator that's going to tip them off. And that is what will then lead them to contact our office. Once it comes to our office, once the CFIU gets involved, we act by ourselves and we act independently. We will ultimately share our findings with the Bank managers, but we act independently and don't report to those Bank managers. The reason for this is to maximize our independence so that no matter what our findings are they won't be influenced inappropriately.

JAVIER CABREJA POLANCO (Dominican Republic): Don't you think that the World Bank, once they do business or loans with a local government, should provide that institution with the report of the investigation since they are the ones who represent the citizenship? The supreme auditing authority should have that information. That investigation could be more effective.

STEPHEN ZIMMERMAN (United States): Yes. The short answer is, sure. Of course it would be ideal if when we made findings we could always share them, and we're trying to do that more and more. However, our unit's first responsibility is to clean up the Bank. We are the Bank's internal investigations office. And so our first responsibility is to make sure that the Bank takes whatever action it deems appropriate. That being said, it is always in the interest of the Bank, I believe, that if wrongdoing, corruption or fraud or misdeeds are discovered within a government, a member government, or by employees of a project, that that information be shared at some level with that member government. We try and share that information as broadly as we can, but nonetheless the Bank still works within the parameters of the agreements it has with its member governments as to how to share information. I think as this process goes on and if our office has some successes in the future in detecting fraud and corruption and can successfully work with member governments, then we will be in a better position to work more closely and share more information with different parts of the member governments.

JIM WESBERRY (United States): Steve, I cannot resist asking one question. Could you share with us, because I don't think you did, the number of cases your office has had in the last two years? And also the number of cases where you've taken action, debarment or whatever? If a World Bank employee is found guilty of a corrupt act and they are terminated, do they get their pension? Is the amount stolen deducted from their pension or is their pension annulled? Another question, the management of the Bank has consistently declined to require a declaration of assets, resources and conflicts of interest. Every government in the Western hemisphere in the world requires this. Has that been overcome by the Bank?

STEPHEN ZIMMERMAN (United States): I think you asked about four questions there. Let me try and remember them. Regarding statistics, since the inception of the office in 1998, as of last week, we finally broke through 1,000 allegations investigated. I think we are at 1,041. That would include simply inquiries and a whole wide variety of things. Right now I believe we have open about half that number—somewhere around 400 or 500 matters fairly evenly divided around the world. As of today, I believe there are 84 companies that have been debarred by the Bank, that have wound their way all the way through the process to get to the end and have been debarred. If you go onto the Bank's Web page and count the number of debarments, I believe there are 84. I believe right now we have about 12 debarment matters in the pipeline—moving towards either notices of debarments or hearings before the Sanctions Committee. So it is not an overwhelming number, but in my view it is fairly significant. It is not one or two. We take it seriously and we're doing it.

Second, I'll answer about World Bank staff. Do they lose their pension? Truthfully, I don't know the answer to that question. I think it actually is handled on a case-by-case basis. There is not an automatic loss of pension but it can happen. Eight weeks ago two World Bank staff were fired for receiving bribes and they were referred to the U.S. Department of Justice for having accepted those bribes. I don't know whether they lost their pension or not. I know they lost their jobs and they are very likely to go to jail.

Regarding declarations, that is actually something that the Bank is going to take action on within the next couple of months. There is a proposal on the table to require the declarations at

some level. I don't think it will be required all the way down the line, but above a certain managerial level, there will be declarations. I believe the Bank is now taking steps to actually set up a separate office to process and monitor that information. So I hope that by the end of this calendar year that should be in place.

Money Laundering, Tax and Duty Evasion Through Abnormal Pricing in International Trade

John Zdanowicz, Florida International University

Simon Pak, Florida International University

John Zdanowicz, Florida International University

It was about ten years ago that Dr. Pak and I began doing international trade research with an objective of attempting to determine trade flows in and out of the state of Florida. As professors doing additional research we decided to study the U.S. trade database to try to find out if there was a discrepancy in prices for different commodities, again, in terms of market efficiency. If the international trade markets are efficient there should not be major discrepancies in prices.

In one of our first reports we picked a very homogenous commodity—rice. Let me explain some of the definitions that we did. We did a report where we looked at the exports of medium grain rice in each country. This was defined by a 10-digit harmonized commodity code of which the first six digits have been accepted worldwide—the customs district of export; the quantity in terms of kilograms and then we calculated the value; the U.S. market share based on quantity; the U.S. market share based on value; the average price per kilogram of rice and something unique that we began to work at, something we call the price ratio. The price ratio is the average price of that item exported to a particular country divided by the average price of that item exported to the world.

We ran into some anomalies. We found out for example in New Zealand they were paying four times the average world price per kilogram and Singapore was paying 25 percent of the average world price. So obviously that raised our concerns as to what's going on relative to international pricing.

We then set out to develop what we call a country report. We programmed our computers to analyze every commodity going in and out of a particular country. We left the university one night and when we came in the next day we were told we were never allowed in the computer lab again because we shut down our university. Our program was so big and grew exponentially so that they couldn't do budgets, they couldn't do scheduling, they couldn't do anything. We were told to leave and never come back. With that challenge, since Professor Pak was a physicist before he became an economist, he developed some mathematical algorithms that allow us now to analyze every transaction of every item going in and out of every country in the world.

This is an example of one we did most recently for Colombia. This is by harmonized code, this is the item, this is the unit of measure, the quantity and the market share and the price ratio. Just to calculate that last number for this particular commodity—let's say horses—requires us to go through the export of that item to every country in the world in order to calculate this price ratio. So we began to develop these country reports. We did one for imports as well as exports. Now we are generating these and in fact have worked with the Colombia Trade Bureau giving them the information on all of their imports and all of their exports.

As we began doing this type of work, and we spotted these anomalies in prices, we discussed it with a colleague of ours, Charles Intriago, publisher of *Money Laundering Alert*. We call these strange prices statistical noise, and when we shared this information with him he said, "This isn't statistical noise. This is money laundering." And in 1992 he published an article in *Money Laundering Alert* reflecting some of our work.

Here are some of the anomalies we picked up. We found erythromycin being exported to Iran at \$0.10 a gram when the average world price was \$1.20. We found cooking stoves being exported to Colombia at \$76 apiece when the average world price was \$425. We also looked at U.S. imports at high average prices and we found, in that year, that we had imports of razors from those major razor producing countries of Colombia and Panama of \$34 apiece and \$30 apiece. Obviously these countries do not produce razor blades, and at those prices something else is going on.

We also looked at the other side of the equation at exports at high average prices. We found erythromycin at 6,599 percent greater than the average world price of U.S. exports of that commodity. And then we looked at U.S. imports at low average prices. We found cooking stoves coming from Venezuela at \$10 apiece. These are regular cooking stoves. So we began to do our analysis. This was part of that original publication. Stainless steel sinks were being imported from Venezuela for \$9,000 and being imported from Hong Kong at \$1.17. We knew what was going on in Hong Kong. People were moving their money out because of the takeover by the Chinese government.

We also didn't concentrate on Latin American countries. We found untrimmed pillow cases being imported from France at \$909 apiece. We found cordless phones coming in from France at \$4,200 apiece.

Now these transactions are in the U.S. trade database. It is the same set of raw data with which they calculate the balance of payments. It sits on a CD-Rom in almost every public library in the country. So the data are there. The big problem is the database is so massive people cannot filter through it like we've been able to do.

Here is raw cane sugar being imported from the U.K. at \$1,400 a kilo. We followed up with that transaction and found out that the Bank of America in Toronto was able to prosecute a money launderer in Toronto. Slip joint players are being imported from the U.K. at \$490 apiece. Our only explanation of that is it might be a Pentagon purchase.

We also looked at exports at low prices in Europe—herringbone tires, brand new for \$7.69. Machine guns are going to France for \$364. So we found these types of pricing anomalies worldwide, all countries and in both directions.

The one thing that a lot of people don't understand is how you can launder money through this technique. If I had \$1 million in cash I could launder it today and move it to a foreign country by the time the session closes today. Let's say I have \$1 million to move. My colleague Simon Pak goes to a foreign country and sets up an import/export firm. I take my \$1 million in cash and I buy 200 \$5,000 Rolex watches. I now have converted \$1 million into Rolex watches. This could be computers. In Miami here one time it was Corvettes. It could be diamonds, emeralds, whatever. I ship those Rolex watches to Simon in that foreign country and I bill him \$5 a watch. He wires me and it all looks legitimate. The invoice says \$5 a watch. He sends me \$1,000 and I send him \$1 million worth of Rolex watches. And once he has them in that country he turns around and resells them in the open market. We just moved \$1 million and no one is watching that door. Everyone is going to the bank.

The effect of this is double-fold. One, these low priced exports reduce taxable income of the U.S. firm. Therefore there is income tax evasion because they're showing sales revenues that are decreased. On the other side, in the foreign country, especially if they generate the revenue with import duty, those items are imported in not at \$5,000 apiece, which is their true value, but at \$5 apiece. So it is a double-edged sword where governments are getting cheated out of both sides—the U.S. out of taxes, foreign government out of import duty.

We're about to release some current data—bulldozers to Venezuela for \$387 apiece, forklift trucks going to Haiti for \$550 apiece, new tires going to Russia, again we can track it down to the customs district and the month for \$3.97 apiece.

Now you can also launder money, avoid taxes the other way by over-invoicing imports. Again, if I want to move \$1 million out of the United States, Simon Pak here goes to a foreign country and buys 10,000 pencils at \$0.10 apiece. And then he sells me those pencils here in the United States for \$100 apiece. The net effect is he sends me 10,000 pencils and I send him \$1 million. We have just moved \$1 million out of the United States to the foreign country undetected by our customs, undetected by our IRS and undetected by the foreign government's customs and revenue bureau. The impact of this, again, is that it is another way of evading U.S. income tax because you're bringing in items that have an inflated cost. That lowers the taxable income and that lowers the tax paid in the United States.

Many foreign governments have export subsidies. We were expert witnesses on a case dealing with medical instruments in Pakistan. The importer in this country was not only avoiding U.S. taxes, but the exporter in Pakistan was obviously colluding with the importer. In this country we're being paid subsidies. There is a case in New Jersey where there were gold products being exported out of Argentina at inflated prices in order to get Argentinean export subsidies and avoid paying U.S. taxes.

Now people say we always focused on money being laundered out of the United States into a foreign country. Well, it goes the other way around too. Over-valued U.S. exports: We found

spark plugs being exported for \$313 per spark plug, six-volt batteries exported to Haiti for \$5,000 apiece, dot matrix printers for \$36,000, battery smoke detectors for \$5,595. Now these are transactions that are included in the U.S. trade database. They are available and accessible.

Over-valued imports: We found oats from Venezuela for \$142 a kilo. Somebody imported used clothing from Haiti at \$260 a kilo. We've got emeralds from Russia at \$17,000 a carat, greeting cards from Haiti at \$20 per thousand. This was an interesting one. Diamonds were imported from Russia into New York during April of that year for \$0.78 a carat.

Now, what is the impact of this type of price manipulation? And what does all of this really reflect? We tried to study why these prices are the way they are, and we can come up with no rational economic justification for these types of prices because this does not include transportation insurance. This is declared customs value coming into the United States and the free alongside ship value for the exports leaving. These are the numbers that are included in the import summary. These are the numbers that are included in the shipper's export declaration. So there is no justifiable economic reason.

What is the impact of this? Over-invoiced imports for a particular country is income tax avoidance or evasion, money laundering, capital flight, justifying high domestic prices under price controls. Obviously if you bring in an import that is over-valued then you can justify charging a higher price and concealing illegal commissions. We just heard about illegal commissions. Well that's how they can be brought in. Under-invoiced imports avoid and reduce import duties and in terms of international trade result in dumping of products onto the market. A few years ago we were asked by some individuals in Venezuela to look at auto parts and the prices going into Venezuela because it appeared to be a dumping situation which was hurting their local industry.

Under-invoiced exports, again, is income tax avoidance or evasion, money laundering, capital flight. Here in the United States for a while we had an export tax in order to pay for our port systems. This avoids concealing illegal commissions. Over-invoiced exports increase export subsidies as we observed in Argentina and in Pakistan.

The data that we analyze, just so you'll understand the magnitude of the research we do, was for 1999 in terms of exports and imports. We went through over 50 million transactions and analyzed every single one. We have a ten-digit harmonized commodity code system. Worldwide the first six digits are the same. Each country adds its last four digits specific to its commodities. There are 8,600 export codes, 17,000 import codes. The database includes 233 countries. There are 44 U.S. customs districts. It is a monthly database and we analyze every component of every transaction for imports and exports going out of the United States.

One of the things we did a few years ago, and in fact we're about to release our numbers, is we analyzed every single U.S. trade transaction with every country in the world. We determined the amount that each transaction was over-invoiced on the import side, under-invoiced on the export side, calculated the under-reporting of U.S. taxable income, then for each transaction determined the amount of U.S. income tax that was evaded. We found that in 1998 the U.S. Government lost \$35.7 billion; in 1999, \$42.8 billion; and the numbers that just came off our computers for the year 2000 which we're going to be releasing this week is that in the year 2000 the U.S. Government lost

\$44.5 billion through these types of transactions. These are suspicious transactions. They may not in fact be criminal; they might simply be multinational shifting their taxable income to low tax countries. We don't know that because we don't know the names of the individuals. We don't know the companies involved. All we observe are the transactions.

One of the things that we looked at relative to money laundering is that many countries are putting pressure on their banks to set up money laundering statutes. We discovered that in 1998 Switzerland introduced what is considered to be the most stringent bank money laundering law in the world. So we set out and looked at the amount of money moved through international trade before the law and how much moved after the law. What we discovered was that before the new law \$370 million a month was being moved through abnormal pricing. After the law, \$776 million. Basically there was a 110 percent increase in money being moved through abnormal pricing and trade with that stringent law. We presented this conclusion last week at an international money laundering conference. Our view is that many foreign governments and the U.S. Government are watching the front door, watching the banks, the check transmitters, the wire transfer people, and the money is being moved out the back door because nobody is paying attention to abnormal trade pricing. Actually we're presenting the results of our study. There are a lot of econometrics and things we do as economists so that we're not making a false claim. We are presenting this in June in Lugano, Switzerland to the European Financial Management Association.

So there is strong evidence that this is becoming a way of moving money. In order to do our analysis we developed something we call a global price matrix. We compute the median prices, the upper quartile prices and the lower quartile prices using every transaction on a monthly basis. Why do we pick this as a filter? Because in the United States in 1994 the Internal Revenue Service issued something called 482 Regulations which specify inter-company transfer prices. And the IRS has concluded that anything that falls outside of this range or looks suspicious should be evaluated. This is how they bring charges against various multinationals, anything that falls outside of that range.

We used this analysis in a case a few years ago. We were expert witnesses for the Justice Department in Los Angeles. The name of the case was U.S. versus Chen Sunrider. They were an import firm in Los Angeles that imported spices and medical supplies. The data that we analyzed was used in the prosecution. Let me just tell you the conclusion of the case. We were on the criminal side, not the civil side, but the net effect of the case was they paid the Internal Revenue Service \$93 million, the U.S. Customs \$4 million and they went to jail for two years. We view ourselves like being DNA experts. We don't even know who is involved with these, but we can analyze the transactions and determine whether they appear to be suspicious or not.

We developed a filter, and this sets our research apart from everybody else in the country. What we do from a computer perspective is considered by most people to be impossible. In fact a few years ago an economist at Harvard University by the name of Dale Jorgenson was asked to comment on our computer analysis of trade data, and he equated it to the voyage of Magellan. He had tried, after a lot of economists, major corporations, governments, and they couldn't do this. You'll see why shortly.

For each commodity code and for each country, we have a price matrix. There are let's say 234 countries. Take into account each country in the world and think of those as columns. There are also over 23,000 commodity codes, so think of those as rows. You end up with a matrix of six million cells. It is 234 times 23,000. The data in that analysis is only good for one month because as we move through time we truncate a month and add the new month. So we're doing pricing analysis based on the most current data available.

Let me show you what goes into each of the cells. We have to go through every transaction. This is from our work in the Chen Sunrider case. This was the import of mushrooms. And there is a harmonized code. We start off with the minimum price per kilo and we rank order them from the minimum to the lower quartile to the median to the upper quartile to the maximum price. So in each of the six million cells there is a rank order of price for that particular commodity for that particular country, because we don't want to be comparing one country's trade pricing with another country's. Again, relative to the case for which we developed testimony, we did it for 1989, 1990, 1991, again, in each of those years. Keep in mind this is within each cell. The highest, the upper quartile, the median, the average, the lower quartile and the lowest price.

We're going to show you some 1990 results. This was a chart we developed as part of our testimony and part of our report, and these were the upper quartile price ranges for 1989, 1990 and 1991. So we filtered this company's transactions against those prices. Their median prices were high \$30s. Their prices were approximately \$100 to \$115 per kilo being imported into the U.S. We did this analysis for every item they imported during those three years and we came up with a conclusion that 97 percent of their transactions were overvalued in order to avoid and evade U.S. income tax. When they saw the results and they saw the graphs and they saw the charts, their attorney said, "You'd better cop a plea because you aren't going to be able to fight this." There was no justification.

When we find a suspicious price, and that's all we call it, there is only three plausible, mutually exclusive explanations. The price is right. Maybe these mushrooms were grown by Chairman Mao. We don't know, but maybe that's why they're so expensive. Maybe there is a justification. But if someone detects a suspicious price they ought to ask why these mushrooms are priced at \$100 a kilo versus \$40. It may be a clerical error. It could be the importer or the exporter, or it could be someone in the U.S. or foreign customs bureau. Well, if there's an error, what better way to check the quality control of data than to filter it and see if it is in fact a clerical error? And if it is a clerical error it may result in more duty or tax collection. It may be a money laundering, tax evasion or duty fraud situation, but those are the only three plausible explanations and what we're talking about is analyzing these abnormally observed prices.

Our conclusion, and we sort of move from being academics into the real world, was that if this type of data analysis could be used in order to prosecute, then this data analysis could also be used to detect. We have developed a software package where we can monitor and detect all transactions of all imports into and exports out of a country to determine what is abnormal. In fact we have Diane, our marketing consultant with us today to deal with clients who might be interested.

Countries ought to be doing audits and they ought to be doing physical inspections of their cargoes coming in and out. And they ought to be determining if the price reflects the true market

prices. They should examine the trade documents and if those documents result in abnormal pricing they should then go into the physical inspection of the cargo. The way it is done now, the customs agents in a particular country look at the manifest. The trouble is they do not have a set of benchmark pricing data. We all know that cooking stoves for \$10, bulldozers for \$500 are abnormally priced. But how about fixed capacitors? I don't know what a fixed capacitor is, let alone what its price range ought to be. Well, by studying the data and getting the upper/lower bound prices, we can determine the range of prices that we should filter against.

Some countries use pre-shipment inspection, which we have discovered is a process that is one, inefficient, and two, very corrupt. We know of countries in Latin America and in the Far East where major corruption scandals have occurred in order to get the PSI contracts. It is a monopoly. There is really only one company involved in it, and it is not very efficient in stopping this type of a practice. There is an office here in Miami and anything that leaves Miami and goes to a specific foreign country is supposed to be inspected here in Miami before it leaves the port. That is a pre-shipment inspection.

There are two choices. One is PSI for which the charge is basically one percent of the manifest value. Actually we made a presentation to the World Bank a few years ago and discovered that Indonesia actually was paying \$500 million a year to have their cargos inspected—a fairly significant dollar cost. Or individual countries can use customs agents. What are the costs involved with that? Obviously there are the wages, the operating expense, physical space necessary to do audits and inspections, and delays in the movement of goods. Most countries don't want to delay their exports; they want those exports to move as fast as possible because obviously exports generate revenue for a particular country.

What are the benefits of audits and inspections? Increased tax revenue. Just as the U.S. Government is losing money through price manipulations in trade, foreign governments are losing tax revenue through this. It can lead to increased import duties.

Reduction of capital flight: We last year presented a research paper in Rio de Janeiro where we tracked capital flight from Brazil to the United States. We worked with a political scientist who detailed certain political and economic events—the new president, the abandonment of the currency and movement to the rio, the devaluation, the privatization of the phone company. That was the only major inflow of capital back into Brazil. And so in terms of capital flight, given what's going on in many countries today throughout the world, people are moving their money to safe havens. And you are seeing it in the condos on Miami Beach because it is a safe environment to leave your capital.

It can reduce dumping by foreign producers which hurts local industry. In many countries if someone is accused of committing a money laundering violation their assets are seized and then that money is reinvested in the investigation and prosecution of criminals involved in drugs or money laundering or whatever.

The big problem all governments have is how much and what to inspect. Some governments do no audits or inspections. There are no costs, but there are also no benefits. Some governments attempt to do an exhaustive audit and inspection where everything is looked at. The problem is

you get the maximum benefits, but you also have maximum costs, and it is probably not cost effective. A lot of governments, including the U.S. government, do random audits and inspections. They assume that as they pull samples that there is an equal probability of an item being abnormal. And this is probably better than doing no audits and doing 100 percent audits. The big problem is when you go down to the Port of Miami and you see a ship full of 1,000 containers, which one do you look in? Do you just randomly pick one and look at it?

What we are suggesting is a statistical approach to audits and inspections. First determine the benchmark, the upper and lower bounds of prices based on statistical analysis of historical prices for each commodity category, for each country in the world. Then the transactions with prices outside those benchmark price ranges have a higher probability of being abnormal than the populations of transactions. It is no different than doing quality control in production. You look for outliers and then you try to figure out what is causing those outliers. This whole approach is basically part of production management theory. How do you decide when to inspect a product coming off your assembly line? And of course, the narrower the bounds on the benchmark prices, the more transactions will be analyzed. And as time goes on, one of the things that we think will occur from a deterrent perspective is that importers and exporters in the United States and in your countries will know that every single transaction will be filtered against a benchmark set of prices. They are less likely to come up again with the ridiculous prices. Eventually those bands will narrow and they will reflect true pricing discrepancies because of quality or quantity discounts. In the long run the narrower bands will reflect behavior that reflects true pricing.

Applications of the trade price analysis: The benefits for governments, both U.S. and foreign, are measured in terms of investigation and prosecution of individuals engaging in these transactions, in terms of elimination and the monitoring of money laundering and tax evasion and probably for this audience the most important thing—elimination of import duty fraud. A lot of developing countries collect their revenue from import duties, and if there is a duty rate of 20 percent and the item is worth \$100, then that is \$20 due to the government. But if you declare a value of \$1, that \$20 of duty goes down to \$0.20.

Banks and other financial institutions are being dragged into money laundering scams by doing trade financing of these transactions. The reason the importers and exporters want this is because it makes it look legitimate. I went to First Union Bank and I got a letter of credit. Well that looks legitimate. And the problem the banks are having is they don't know the price of fixed capacitors either. So we're developing a software system for banks to install. Actually it is the same system that we think foreign governments should install. Any time there is a transaction it should be filtered against that system.

Accounting firms: If an auditor from an accounting firm spots one of these strange transactions, they have an obligation to report those transactions. In fact, from what we've been told, the way the Chen Sunrider case was brought to prosecution was the accountants that were auditing the books discovered these abnormal prices and told U.S. Customs about it.

Another application is attorneys in terms of litigation evidence. We've also been involved in providing data to insurance companies related to cargoes that mysteriously disappeared and were valued at some ridiculous amount for an insurance claim.

And businesses: A lot of corporations in the United States, General Electric is one that pops up, are being dragged into something called the black market peso exchange where they end up taking drug proceeds, putting them into washing machines and refrigerators and shipping them down to Colombia at very, very low prices. And now the government is beginning to say that these companies have to begin to monitor their trade flows and their commodities. And they were probably innocent. In the example I gave you of the Rolex watches, obviously Rolex doesn't want to be involved with money laundering. But if in fact there's been a shift in the pattern, then somebody ought to be monitoring that.

One of the things that we also like to share with people is our current and future research ideas. We're going to continue to do lost income tax analysis. One of the things that we had on the back burner that just came out was the case of Switzerland. We're reporting the details of that again this June. We're going to study the effectiveness of pre-shipment. We're going to be looking at Pakistan before and after they hired PSI firms and Peru before and after they hired PSI firms, to see how much this diminished with the PSI. Preliminary results show no effect. We have to go through and do all the statistical work.

What are the economics determined? Our Brazil paper looked at things like exchange controls, devaluations of currencies, what causes capital flight. There are some economists who believe that it is the political instability and the economic instability in the country that causes capital flight. There are other economists who believe capital flight causes the instability. And so we're going to be trying to do that type of research.

One of the interesting things is weight analysis. People have said to us, "Well how do you know that what's in the box is what they say it is?" And the answer is we don't know what's in the box. But we are now working on weight analysis that we're going to combine with price analysis as part of our filtering technique.

A couple of years ago we made a presentation at the National Drug Intelligence Center in Washington after we looked at commodities. We did the same analysis except we did it by weight and not by price. For regular coffee, the median weight is 1.01 kilos per kilo. The 0.01 kilo is probably the bag it comes in. Well we tracked that coffee from Costa Rica, actually ordered from Seattle, to its delivery in San Francisco in January of 1998. We found kilos of coffee coming into the United States weighing 1.2 kilos per kilo. There was something more than coffee in that shipment. And the one I like the most is spark plugs. We found spark plugs coming in from China, ordered in Los Angeles, delivered to Los Angeles in May. Each spark plug weighed over four pounds. We can't explain it, but somebody ought to look at it.

Another interesting thing is the impact of trade shifts on stock prices from a commercial perspective. We do a lot of product market analysis, and we're going to recalculate the U.S. balance of trade. Because obviously if there are incentives for importers to overvalue and exporters to undervalue, then the deficit in our balance of trade is overstated. So we're going to go back through, take every transaction and bring everything back to the ranges to see what that balance of trade really looks like.

In terms of import duty loss, let me mention to you that we have this sitting on our laptop right now. We have data on the dollar value of declared imports for every country in the world. We just calculated it. We don't know your country's duty rates, but once you have the dollar amount of under-valuation of your country's imports, you can do a rough calculation of how much your country is losing due to undervalued imports. We'll have our computer with us and if you let Professor Pak know which country he'll tell you the dollar amount that we calculate. And our estimates are very conservative. There are a lot of commodities that do not have quantities, so we just ignore them. If you extrapolated to those products that have quantities, the figures would be significantly larger. Also, if you want copies of this PowerPoint slide presentation, leave us your e-mail and we'll send it to you.

Our conclusion is that the methodology is now available to analyze every single transaction. You don't have to do it by hand. You can do it on a computer. All of these suspicious transactions should be analyzed. Governments, financial institutions and accounting firms should ask the important question: Was the price right, was the price wrong, or was the price abnormal?

It is easy to install and implement the system. It can be downloaded into your current system. In fact we were talking with representatives from one country and they said there are these border crossings that are way out in the country. They don't even have electricity. Well, we can produce an actual hardcopy book by commodity code that shows the prices. So nobody has to really be connected into our system. It can be downloaded. In fact, what we're planning on doing for banks and for countries is to help install the system into a PC or a laptop. Then on a monthly basis we are going to FedEx a CD with the matrix of 6.5 million cells. All the customs agent has to do is type in the harmonized code number and the price and it can filter against this and red flag it if it is out of range, or leave it alone and let it go through if it is within range. Again, this is something we're going to be updating on a monthly basis mainly because of the import duty losses that many governments have. And at the present time we are looking at U.S. world trade by countries. As we grow with our project we're going to bring in the Japanese database, the Canadian database, the European database. So we'll have even better filtering techniques with all that additional data brought in. Most people recognize right now that, especially in Latin America, the U.S. is the major trading partner and therefore the U.S. trade with Ecuador historically and with the world or South America is probably the closest thing you're going to get to good benchmarks of the prices.

All of this will be available coming up in June. For those of you that leave us your cards we'll e-mail you the Web site that we've created. It is going to be called traderesearchinstitute.com, but it won't be up and running until June. We do have people who contact us and say, "I want to know the price of this one item." Others say, "I want to check all my items."

JOHN ASSATURO (United States): I work for the United States Customs Service. One of the things I wanted to cover before I ask my question is the fact that the United States Customs Service uses other criteria than just straight statistical sampling. Many of our criteria are not available to you or the general public. So our criteria is not just strictly statistical sampling based on the number of containers. We use a lot of different kinds of criteria which I really cannot discuss.

My question to you is: If in fact we did more detailed examinations, have you determined what the cost would be to do this versus the amount of revenue lost? And what would be the economic impact on a nation if we examined larger percentages of the cargo and the documentation in relationship to this cargo?

JOHN ZDANOWICZ (United States): As economists, decision making is pretty straightforward. As long as the gain in revenue is greater than the expenditure of cost you keep doing something. That is basic Economics 101. Up until now no one has been able to estimate the revenue lost by not doing this. In fact, relative to what we're doing by country here, that dollar amount times the average duty rate is the amount of money a country is losing. Now, obviously, each item has a different duty rate and if we had access to it we would get to each item. The next question is what's the marginal cost? Well, if you put on an extra customs agent to do the inspection, that costs you \$100,000 a year. But on average that inspector can generate an extra million dollars a year in tax revenue or duty revenue when you move to that level of inspection. Again, it is no different than a production firm determining quality control inspections as long as marginal revenue is greater than marginal cost. And for the very first time, and this is what we are beginning to look at, we can calculate the potential marginal revenue of stopping this.

SIMON PAK (United States): John, with regard to the undervalued import for 1999 U.S., it is up there. A total of \$192 billion was undervalued in U.S. import. Of that, some of them may be duty-free; some of them may be dutiable. So you can apply duty rate and we can calculate the amount of duty lost in the United States.

JOHN ZDANOWICZ (United States): We can flip the data and do it for a particular country. We have not gone through all of the duty rates for avoiding the duty. People ask, "Why would you lower your import value to save duty since you increase your taxable income and since you're showing undervalued cost of goods sold?" And so it is a valid question. One of the arguments that we've seen is people compare the duty rate to the debt marginal corporate tax rate, and whichever one is lower that's the one they decide to pay. We haven't done the research on this, but we also discovered that on some items, on top of the declared duty value, eventually the corporations add in shipping and freight. We found transactions where the shipping and freight and insurance charges are higher than the value of the item. So that way you can skip out of both—you don't pay duties and then you avoid U.S. income tax. It's another research piece that we're thinking about doing next—finding all transactions where the transportation and insurance costs are higher than the value of the item.

PARTICIPANT (Dominican Republic): I am from the Bank of the Dominican Republic. One of the most discussed cases in national and international meetings, bilateral, multilateral meetings is whether the money that comes from tax evasion can be considered as money laundering. A group of technicians that are very highly qualified think not because we know where that money came from and it cannot be considered money laundering. Another group, in which I find myself, says yes because they want to cover up where the money is coming from. That is why we say that it should be considered as money laundering. Then there would be two crimes committed, avoiding taxes and money laundering. We want to know your opinion concerning this subject.

JOHN ZDANOWICZ (United States): The strict definition of money laundering in the United States is money that is moved through these examples that was acquired through something defined as a specified, unlawful activity. That's drugs, prostitution, slavery, extortion, assassinations, pollution, whatever. There are specified unlawful activities under U.S. law that result in a money laundering charge which results in a 20-year sentence per charge. That's the real tight definition of money laundering. There are others, and I tend to concur, that it is not important where the money came from. In the Chen Sunrider case, they were convicted of tax evasion and customs fraud but not money laundering because they couldn't trace where the money came from that was being moved out of the United States. So in a strict definition, money laundering can only be proven if a specified unlawful activity has been determined. Otherwise it is just plain tax evasion and there is a move that tax evasion be included as a specified unlawful activity. But the obvious problem is the practicality of it. We would probably have half the business executives in the United States in prison because everybody tries to move their money to the low tax countries, or they try to move their money for other reasons. If I have a division operating in Germany and I'm going to show a loss, then I'm going to try to transfer my taxable profits to Germany to offset those losses and avoid the global tax bite.

So I use the word depending on which conference I'm attending. If I'm at a banking conference or law enforcement conference I use the strict definition of money laundering. Sometimes we call it capital flows, capital flight, money laundering, but it all is the movement of wealth through abnormal pricing and international trade. And if a foreign government defines duty fraud and tax evasion as a specified unlawful activity in their own country's laws, then it becomes a money laundering dimension.

The gentleman from Customs was correct. The data that we buy has had information truncated. We don't have the names of the importers or the exporters. And a big number that we'd love to get our hands on is in the shippers export declaration and in the import documentation there is a column for related party transactions. We would love to know because all this money that's being moved can be split into four pies: a domestic U.S. firm, a foreign-owned firm, a related party transaction or an unrelated party transaction. So we would love to know whether it is Eastman Kodak shifting its taxable income to Ireland or it is Sony shipping its taxable income back to Japan, or whether it is an unrelated transaction between either a foreign or a domestic firm. That data is confidential and actually we've got some requests in to one of the Senators not to give us the names of the companies but just give us that definition—related, unrelated, foreign-owned, domestic. Then we'll be able to take our tax laws and split it into four piles. So all of the transactions that we do spot are not direct money laundering because we don't know what the specified unlawful activities are. All money laundering transactions are tax evasion transactions. All tax evasion transactions are not necessarily money laundering transactions.

We'll be around for a little while and through lunch. If you want some information on how much money your country is losing, we've got it. If you give us your cards, we'll e-mail you when our Web site is up and running. Thank you.

Cracking the Value Code of Public Sector Organizations in the New Economy

James Hamilton, formerly with IMF

It is nice to be with you this afternoon.

The purpose of my presentation is to share some ideas and concepts with you on creating wealth and how to measure it in the public sector. Wealth or value creation is an old concept, but it has some exciting new implications in the new economy in the public sector.

The focus of my presentation is to present these concepts and promote some thought on implementation and measurement. My goal is not to provide answers or detailed measurements but to provoke some thought and some enthusiasm and provide some examples and ways that you might act on them.

How did the idea for this come about? Last November I attended the CAPA conference in Manila, the Confederation of Asian and Pacific Accountants, and made a presentation at an ICGFM Public Sector session along with Eduardo Grinberg, President of the Court of Accounts of the Province of Buenos Aires, and Graham Joscelyne, Auditor General of the World Bank. The keynote presentation was made by Barry D. Libert of Arthur Anderson and Company. He was talking about value creation in the private sector and generating new value creation, not just from tangible assets but also from intangible assets such as knowledge, people, brands, relationships, etc. As we find in the private sector, combining tangible with intangible assets best drives wealth creation. So this started me thinking about how we could apply the same concepts in the private sector to the public sector.

I would just like to thank a couple other people who had helped to inspire me in these thoughts. David Uzcátegui, who is following me this afternoon, last year had provided some thoughts along these lines. Also from the World Bank, Malika Krisnamurthy made a presentation in Madrid last June on knowledge sharing and this inspired me to pursue this idea and to broaden it a bit.

Now, everyone thinks of value in terms of dollars, right? But what may we be excluding? Usually it is the intangibles. I'd like to raise a question. Might a company or a government agency look strong on the balance sheet but have a bleak future because they are weak in intangible assets? Well, let's discuss what they are.

How do we define value today and how do we create it? We are bridging from the definition to creating value. Both physical and financial assets are enumerated in dollars or the local currency. However, in the new economy the intangibles are often key to success or failure. For example, how well is the entity organized? What is the quality and training of its employees?

How strong is its supply chain to support its activities and products? How broad is its customer base? These don't always show up in the financial statements, but they are very important.

Experience in the private sector has shown that intangible assets need to be combined with tangible assets for the best outcomes. Some of the most important intangibles are interactive organizational planning and operating systems, well-trained and motivated employees, reliable supplier chain and a growing customer base with data on the customers. And we find the same thing goes for the public sector.

The intangible assets need to work well with the tangible assets for the best results. Nowadays inventories can be greatly reduced or eliminated by shipping goods, documents and information directly from the suppliers to the customers. The customers, taxpayers or citizens can be tapped to include information on themselves and their preferences to provide better quality services from the government as well as the private sector. This can be implemented as you know through list servers on the Internet. People subscribe, particularly if it is a free subscription, and they give you their address, information on themselves and their preferences. Partnerships with other organizations are also needed to maximize the value creation for us all, creating more win-win opportunities.

Now how do we apply this to create value for our clients and stockholders or stakeholders in the public sector? We need better systems to measure the value of these intangibles to better track their progression or decline for our stakeholders. We need to create more partnerships with similar organizations to share management systems, knowledge and experiences to gain economies of scale.

The people in your organization are your greatest asset. We don't show them as an asset, we usually expense them. Your people and your skills and training are very important. How are they organized? Your plans and strategies—these are your greatest assets.

Why is it, as I just indicated, that buildings are included in our balance sheet but not the people who make the organization work? We all know that when a qualified CEO or CFO leaves one organization to work for another one, the first loses value and the second gains value. And when well-qualified employees are not paid well and leave, the organization loses value. How do we measure these gains and losses? I would like to submit that we don't do that very well today. And I think we can all find examples of how this happens in our own organizations and our own situations where we live and where we work. Use this conference as an example. If Dr. Dittenhofer and Jim Wesberry and Ana Estevill left for some reason, we'd lose a lot of value. Could we sustain it? Could we continue with the conferences? And we find that that's true in most of our activities and organizations, not only in associations but also in our government entities.

Training builds value. We also expense training, don't we? But it is building a resource which has value. Why should we expense training when it adds value to one of our key assets? Should not its cumulative value be seen on our balance sheets or as an adjunct in some way to them?

As they found in the private sector, a reliable supplier chain is very important. It is needed to support “just-in-time” management and to help share risks and reduce the cost of inventory. That’s what’s happening in the private sector and it is happening in the government as well. By having suppliers ship services direct to the customer, it reduces our cost and risks in carrying our inventories.

We need to get more information from our customers in government. Make them your partners. We need to have information on the customer base. Include them in your feedback loop through questionnaires. This helps to keep your data current. It brings them in to contribute their ideas and views. And then finally your customers become your partners in creating value.

In addition, partnerships are needed to create value—partnerships with other organizations. In order to provide quality information, education and services to our clients in this new economy, public sector organizations must reach out to other organizations around the world who are providing similar services and partner with them. This provides a synergy—sharing of information, sharing of ideas.

I submit that new measures need to be developed. The stakeholders of public sector organizations deserve to be better informed. They need to know the quality of the planning of the information systems and the management team who implements them. They need to know the amount and quality of training provided to the employees in your organizations. They need to know how suppliers are sharing the risks such as with inventory as I mentioned, and how customers or recipients of the services are tapped to be included in the evaluation process.

That is the challenge. The measurements need not be in dollars, although we are used to that. But they should be developed for the stakeholders to evaluate the strength of the organization along with the traditional financial statements.

In addition, value is created by the ways we do business in our organizations. We must take advantage of them. Computer-to-people relationships are changing, creating more value. More knowledge sharing opportunities are being created, creating new economies of scale. There are more opportunities for partnerships with synergistic value creation between organizations. We’re trying to do that in the Consortium, to partner with FIU, partnering with AECA in Spain and others on joint projects.

What is changing this equation where intangibles are gaining more value? People are sharing knowledge today more and more using the Internet. This is changing the way we do business, both on a personal basis and as organizations.

Traditional government functions as well as commercial functions are being moved to the Internet. There is more e-commerce between business and government and between computers and government. It will have two effects. It will reduce the turnaround time, speeding delivery of services and information, and with adequate controls, this will reduce the possibilities of corruption.

In the 1960s and 1970s we had the use of computers, mainframes mainly, for “back-office” systems. In the 1980s and 1990s we used the PC LANs for “front-office” systems. Now we are using computers for e-business and e-government based on the Internet.

We are going through two phases. We are making greater use of efficiencies and shorter turn-around time in Phase I. But in Phase II which we are rapidly going into, the changes involve the way we do business in the public sector.

Phase II leads us to knowledge management systems. Citizens and government agencies share information more freely, and it will affect how decisions are made. Ultimately it is transforming the world into a global village. Voluntary groups with common interests are forming knowledge-sharing sites on the Web.

Changing people to computer relationships: First we had the mainframe stage—one computer roughly to 100 people. I know it is different in different countries and different environments. And then we had the PC LAN stage, roughly one PC per person. You’re familiar with that. For the 21st century we’re going to be moving to 100+ computers per person. Now the definition of a computer is not always a physical box. It can be a telephone hook-up; or it can be smart systems that interact people with computers in your home or in your office.

What is the impact on society? We see first we had computers for institutions, then computing for people in the institutions. Now we have computing for connectivity. It is leading to a worldwide information society.

In this process we deal both with structured and unstructured data as you’re familiar with it. The structured data is what we’re familiar with in creating integrated financial management systems. But we’re moving more and more into the unstructured data. The data in books, layouts, reports. That’s unstructured. That’s being captured and being put on the Internet.

So we find that we are changing the economy and public sector institutions in which we work. This leads to a portal where both kinds of information benefit government and the citizenry. It’s called the “government of knowledge sharing and development.” And it’s a very adapted process. We as accountants and auditors in the public sector, financial managers, information technologists, we need to keep pace and remain relevant to the process. The public sector accountant and auditors must constantly retrain and adapt to the changing business and government reality.

Now let’s look at some examples. There are two I’d like to point out to you that have been instrumental in this environment into which we’re moving. They are the World Bank’s Knowledge Sharing Groups, in public expenditure management in particular, although there are many others. And Financenet, where governments and people are sharing information and reports. These are examples of how we’re bringing this technology, this transition from computers for data processing into connectivity and knowledge sharing to create value.

First let’s look at the World Bank and their Public Sector Group. We will talk about knowledge management, the Public Sector Group, public expenditure and decentralization Web

sites, thematic groups and knowledge sharing, seeking guidance and pointing out Web site locations.

At the World Bank it has been a five-year experience. The World Bank was recently ranked as one of the top ten knowledge management organizations. It has strong backing from management and it is establishing a knowledge management culture, both within the organization and with outside groups which are partnering with them both on an organizational and individual basis on their public Web site. And it is creating an environment of knowledge sharing.

I'd like to focus a bit more and talk to you briefly about the Public Sector Group. The Group consists of approximately 20 subgroups working on different thematic areas—anti-corruption, decentralization, fiscal management and others. The aim of the Group is to work to have good governance in all these areas. The Web sites on these topics are available on the World Bank's central Web site.

I'd like to spend a little time focusing on the main Web site for the Public Sector Group. Its focus is on a lot of crosscutting areas. Research is available on the site and it is contributed by scholars and practitioners within and outside the World Bank. Their future plans are to continue to grow on this site and hopefully interesting studies and experiences can be shared internationally. E-mail exchanges have worked effectively, particularly in just-in-time management where people need ideas on an individual basis and an organizational basis.

I know we all like examples. Here is an example. A member of a thematic group based in East Asia urgently needed detailed examples of grant institutions around the world. The member immediately sent an e-mail to the thematic group coordinator based in Washington, D.C. explaining the need for this information. The thematic group coordinator immediately sent it out by e-mail to the members via the distribution list. And within 40 hours the requester received information and guidance from colleagues around the world. This is one example of how the thematic group has been able to keep people connected through knowledge sharing. So you see it can be used for long-term research and it can be used for just-in-time management and problem solving.

There are some other examples: The U.S. General Accounting Office has been teaming up with the World Bank to create an international thematic group on accountability in government finance. This will become more independent but it will always be connected through hotlinks, through the World Bank, to gain the synergy of this wider audience.

Our Consortium has been partnering with AECA, the Association of Accountants and Business Administration of Spain, and the World Bank to develop an international thematic group to conduct research on decentralization through a linked Web site. Hopefully this will be synergetic, developing and creating value for each of our organizations and other organizations and individuals.

We plan to make available success and failure stories from government organizations, from the development banks, and from the providers of the systems on decentralization. We hope to

eventually add evaluations of these experiences on our joint Web site project. We hope this will create value through our shared experience.

There will be a handout with all these Web sites on it so you don't have to copy them. But you have the World Bank Public Sector Group site (www.worldbank.org/publicsector/decentralization), and you have the decentralization Web site. We'd like you to join this exchange and partnership through knowledge sharing. The World Bank provides these facilities but it is other organizations and the general public who makes them live and breath and carry on and develop the value.

I'd like to share another example with you. Another organization which has been very active in this area is Financenet www.Financenet.gov. That's where the ICGFM, the Consortium, has its Web site www.Financenet.gov/icgfm.htm. It is sponsored by the U.S. Government through the National Science Foundation. Preston Rich, who is a Director of our Consortium, has provided the service to us to be their interconnectivity in the international area of government finance. This is very important because it connects us to the providers of government reports, both in the U.S. and around the world. It also provides immediate online access to buying and selling government surplus (including equipment and securities). It helps you and your government agencies to sell surplus free of charge through this interactive service, and it provides government reports—both government-to-government and government-to-individuals worldwide.

For example, on Financenet you can get to any of your Senators or Congressmen, the White House, and you know it is a bona fide connection. There are a lot of misleading sites that look and feel like the official sites but they are not. You can get the U.S. General Accounting Office reports, the OMB reports, FASB, JFMIP, the U.S. Audited Consolidated Financial Statements and other specialized reports from the agencies. But another interesting possibility, getting into value creation and using the Internet for the benefit of your agencies and yourselves internationally, Financenet is the largest seller of surplus government equipment, property, assets, debt instruments. It has 200,000 subscribers worldwide and over 4 million messages handled per day. You see, it is affecting the way we do business. No matter where you are in the world, any government agency or individual, particularly the government entities, can sell their surplus assets or equipment without any user fee to its 200,000 subscribers. As I mentioned before, their Internet address is www.Financenet.gov.

We'd like you to join this interactive e-mail list that they provide and subscribe for the three online publications that they have. What they do is they segment their subscribers into special interest groups. So when you subscribe for these online magazines and for these lists or whatever you would like to buy or sell or subscribe to, it is a specialized list or it can be a consolidated list if you wish.

As you know, the ICGFM has its Web site on the Internet and we've just been told by Preston Rich that each day 600 people visit our site. And on our site we have free text of the presentations at our conferences and information on our research. We have forums where you can discuss issues on particular topics. We'd also like to tell you that we have an international list which is crosscutting on which we have between 2,000 and 3,000 subscribers worldwide. So if you send an e-mail, for example, to "ICGFM@financenet.gov," it will go out to these 2,000 to 3,000 people and

organizations around the world who are our members, who have come to previous conferences, or who have interacted with us in one way or another. And this is very powerful, just as on the World Bank knowledge sharing sites you can go out and say, “I have something I want to announce. We’re having a conference,” “We’re having a program in our country,” or “We need to know some information.” I have seen it used countless times. It will go out to all those people immediately and you may be surprised. You may get more attendees to your meetings, to your conferences. You may find that you get information back from some of those people who will be sharing specialized knowledge in the area in which you need it.

So in conclusion, I would like to submit that we can create value in ways that we could not imagine just a few years ago. Let’s learn to develop better measures of both the tangible and intangible assets that we have. And let’s provide a better and more complete view of the sustainability and value of our organizations and the future of our organizations to our stakeholders.

In a previous presentation this week, the presenter from the U.S. Institute of Internal Auditors gave us an updated version and definition of internal auditing. And even before the objective of creating a better organization, the first objective was adding value to the organization. So you see adding value is important. Measuring it and reporting it is important. So I’m leaving you with a challenge. I haven’t defined the ways we should do it. Some of them may be a bit controversial. The profession was challenged in Manila just after they gave their report on how they are all adopting the IFAC and IASC international standards. One of the leaders said, “Oh my gosh. We’re just adopting the IFAC public sector standards. Now you’re asking us to revise them.” But it is an ongoing process. We have to remain relevant to what is going on in our world today, and as organizations and individuals we have to find ways to use these concepts to create value first and then to better measure and report it to our stakeholders.

So thanks for your attention. I hope that you’ve learned a little something and that this might move you to do a little more looking around at these sites and using them and connecting and creating more value for your organization. Thank you.

EDUARDO GRINBERG (Argentina): It’s simple in the public sector to understand how the greater value of intangible things has an impact on the value of the company—better organization, the knowledge of the employees, a good system of employees and good customers. It is evident they are going to increase the value of the company. Who is going to come out and pay a high price for them? How would you translate this greater price or greater value of a good organization, good knowledge of the employees, good techniques in working with the public sector? Where exactly would your value be, this gain, what would it be? That is my question.

JAMES HAMILTON (United States): As you mentioned, there is always a cost. But I think we have to think in terms of our people as investments. We find that as we integrate intangibles with tangible assets we create a mixed environment where we have to look at the payoffs. We have to look at the payoffs or investments in our people in their motivation and retaining them in our systems, balanced off against what we pay for our buildings, for example. And there are often situations when something we look at as a tangible asset may be more of a liability. We may be

carrying an old building that it is not connected to the services we need. The same money could be put into connectivity or into training our people. If we look at the people and the systems as an investment, even though they may be intangible property, we may have a better payback in terms of the added service we give to the public or the increased turnaround time we give to the public than had we invested it in something physical in our domain.

MICHAEL PARRY (United Kingdom): My question concerns the measurement of the value. In a commercial context, I was taught and I also teach that the value of an asset was the discounted value of the present future cash flows it will generate. In the public sector the value of your people is measured in terms of the services they will provide. If you are going to talk about valuing these, how are you going to go about this? It seems to me it presents quite a difficult valuation problem.

JAMES HAMILTON (United States): Yes, I think you're correct, Michael. It does, but I think in practical terms people are always making, how do you say, bottom of the paper, edge of the paper calculations on what they expect to get out of the expenditures or investments they make in terms of people. And I think there are a lot of these informal ways by which people track this within their organizations, and maybe as a profession we should give some thought to putting them in more of a unified presentation or concept so that they can be used more widely. Like I said, it doesn't always have to be in terms of dollars, but I guess that's how we normally measure things. A lot of what I said is more of a challenge in providing the answers, but I think we have to put our heads together and maybe move a bit more in this direction. I hope this leads to some other discussions we will have among ourselves. Maybe we can provide some workable models as we move along.

ROLANDO CASTAÑEDA ALDANA (Guatemala): If I understand correctly, training will give greater value to the human resources of an organization. But when this organization has greater value, the human resources also have greater value. In this sense, if these people are better trained, we should offer them better salaries in the public sector. What can we do to hold these people, these resources, closer to us in order to avoid the temptation of better salaries from other institutions? How can we keep them from leaving us for other organizations? This will damage the organizations that actually did the training.

JAMES HAMILTON (United States): Yes, that's often what happens. But if you are a good organization and you show your people the path that they can take to have promotability, mobility, more responsibility in your organization, you can retain them. In a broader context, in wealth creation, if they stay within your country they are still creating value for your people even if they move to the private sector or to another government agency. Perhaps you can attract them back at some time. Of course competitive salaries are important. If you value your employee, you will pay them what they are worth and you will retain them. You put your money where your mouth is. You can get up and tell your employees how valuable they are to you, but if you fail to pay them at a competitive rate then that's your loss. So it really makes us wake up and realize how valuable our people are and we need to act commensurately with that assessment.

Digital Local Government—City of Caroni, Venezuela

Antonio Briceño, Mayor, Municipality of Caroni, Venezuela

David Uzcátegui, President, EGT Consultants

Antonio Briceño, Mayor, Municipality of Caroni, Venezuela

Good afternoon to you all. Thanks to the organizers of this event for this meaningful invitation to our municipality, Caroní, located in southern Venezuela. Before we make our formal presentation I want to show you two short videos, so you can get to know the municipality I represent and its geographical conditions. We also want to promote an upcoming event this April 22, the Water Crossing of the two largest rivers in Venezuela. You're all cordially invited to join in the crossing. And now for your viewing pleasure, the two videos.

Narrator, first video: Ciudad Guayana, center of all development in Venezuela, gate of entry for a precious land, where human and mineral resources converge to create a great center of industry, learning and tourism. Founded only 39 years ago, the city celebrates each June 2 its seventh and last restoration. It is located in the state of Bolívar, which is named after the great Liberator. It is the largest and most fascinating city in the extended region which includes these states and territories: Amazonas, Apure, Guárico, Monagas y Delta Amacuro; it borders on Guyana and Brazil. It is an impressive part of Venezuela and one of its largest with an extension of 238,000 square kilometers and just 1,150,000 inhabitants.

One of its daughters, Ciudad Guayana, is endowed with a union of nobility, history and folk traditions. It is daring in its modernity and in its industrial might. It is a legendary place in which natives and newcomers enrich its culture by the blending of the races. Its natural beauty attracts thousands of tourists. Its water and mineral resources attract investors. Its strategic location opens it to the world economy. Important investments from Asia, North America and Europe have driven the birth of its industrial complexes. In Ciudad Guayana the spread of activity is nourished by history, natural resources and the creativity of a people that enjoys its many parks and nighttime spectacles. Ciudad Guayana: its story of struggle and of optimism is blended with the force of the River Caroní and the majesty of the River Orinoco, which both frame the land where voluntary efforts, the union of its inhabitants and the gift of its wealth have created a city wide open to progress and unbounded development, heir to Bolívar's continental vision. The most basic enterprise of Guayana is that of its humanity.

Narrator, second video: Taking on the waters of two rivers, the Orinoco and the Caroní, is a goal that every year brings together 800 athletes from all over the world. This year preparations have begun for the 11th International Crossing. It is not just a competition to span the vast "Father of Rivers" and the forceful Caroní. It is also an occasion to prepare the way for diverse nations to

share their cultures, undergo medical examinations and receive advice from specialists. Crossing 100 meters of one of the most important fresh water highways in the world opens the way for a competition that brings out the courage, fervor and enthusiastic presence of children, youth, senior citizens and special athletes.

The municipality of Caroní once more prepares to fulfill the dream of those who dare to plow the waters, crossing from the Fajardo gorge to San Félix where all Bolivarian history began. It is an international passage that brings out thousands and thousands of spectators. The municipality of Caroní is organizing this event and invites businesspersons, sports authorities and public institutions to join in this wonderful effort to exalt the municipality, in its role as host for all those who are taking on our two great water giants. Municipality of Caroní, in step with Bolívar's vision.

Antonio Briceño, Mayor, Municipality of Caroni, Venezuela

Thank you very much for your attention. We're going to present a sketch of our municipality, along with our present program which is to re-invent the mayor's position there. That is our theme today, the re-invention of the office of the mayor of Caroní. We will present some current economic data that demonstrate our present situation, conditions and challenges. We will present our strategic plan for re-inventing government along the e-government model, and look at critical success factors that make up the 11 rules of the new government. After my presentation, Mr. David Uzcátegui will add some words of support.

Our country's people have been distributed unequally, in recent years, in the northern, southern and central regions. Most of our population is concentrated along the northern coast, facing the Caribbean: 60 percent of the population lives there. Another 30 percent live in the center of the country, and the other 10 percent in the south. The southern region by a coincidence contains 90 percent of the nation's water resources, 95 percent of its hydroelectric potential, 80 percent of its forest resources, 50 percent of the nation's agricultural potential, a great mining potential, and also with deposits of heavy crude. This indicates the great contradiction that exists in our model of economic development.

Today we propose an inversion of that process: to decentralize and de-concentrate, bring the great urban centers to the less populated zones. Of course, in this zone where we live, where the municipality is located, we possess these features: great potential in mining, in wealth, in lands, in water, all in an area in which only 10 percent of the nation's population live. Today we propose to invert the process and achieve a new balance of our society and economy at the national level.

Our municipality is located in the center of two strategic axes that cross Venezuela. One axis follows the Orinoco and the Apure, going from the northern seacoast and reaching the Andean community in the west, then from the Caribbean in the north to Brazil in the south. The other axis lies between Santa Elena de Guairén and Paria. As you trace the zones along these two axes you see our location in the center of national economic development. Besides this the municipality of Caroní borders the oil-rich belt of the Orinoco, which contains the richest reserve of heavy crude in the world.

Our city was founded anew in 1961. A new urban project was created on the foundations of gold, diamonds, iron and aluminum, with giant steel mills at the edge of the Orinoco, a great bridge, great dams that release electrical energy to all the country and much of Brazil and Colombia. We have two great rivers, the Orinoco and the Caroní. The Orinoco discharges into the Atlantic. Within the municipality basic state enterprises are concentrated, involving production of iron, steel, aluminum and hydroelectric power. It is recognized as the most well planned city in the country after 1961, under the direction of the Venezuelan Guayana Corporation, which had as its purpose the urban development of the city.

The city was conceived practically as a labor camp for heavy industry. As time passed, the struggle of men and women in our city and the march of progress itself, the social dynamic, added new elements to the mix. The city's own growth has implied a new understanding today: that the city must focus its efforts on having the enterprises be at the service of the city rather than the way it used to be. It is a search for a more human and more balanced dimension. As I say in our first video, the first and most basic enterprise of Guayana is humanity. This is the fundamental element for empowering our economy.

Our mayoralty is one of ten in the state, and it's the most important. Today our population has reached nearly 1,200,000. In our municipality, despite being one of the smallest in the country with only 1,700 square kilometers, we possess a great concentration of steel mills. Besides this, with a great population concentration, we can imagine ourselves each day before the world as an urban center with the possibility of high levels of development. There is a municipal chamber with 13 councilors, 8 of them elected by electoral districts and another 5 by proportional party strength. In Venezuela, under the new Constitution all elections follow the district method. The councilors and representatives are chosen by name. The mayor is elected by the people just as the president and the governor are. Today the mayoralties together with the parish boards have a stronger say under the decentralization strategy of the country. In fact, just a few days ago the vice president of the country announced that more authority was being granted to the mayoralties and parish boards than to state governments. This is being done for questions of decentralized decision-making and for resource management.

We have a municipal comptroller who depends upon and reports to the national comptroller, but who is elected by the municipal chamber. There is a municipal corporation that represents the municipality before the law, not as in other countries, and it is elected by the municipal chamber. Our life expectancy is about 70 years. We have a literacy level of 93 percent. And right now, because of the massive construction that took place during the 1970s and the 1980s, we have implemented the great industries already mentioned. Today we have a highly qualified work force. According to surveys and statistics, we have in the municipality and in Ciudad Guayana the highest concentration of professionals per capita in all of Latin America. That means a large number of professionals concentrated in the municipality and employed by our large industries.

Right now we have a great challenge: to be masters of our own destiny, to create the means by which we can breathe on our own, using our own oxygen. Ever since my election on August 7, 2000 we have been situated at a point where we have to exploit this human potential in a revolutionary way. In this effort we have received support from a group of consultants, of friends

such as David Uzcátegui, and others working together in one team to achieve the re-structuring of the mayoralty and raise, triple if possible, the collection of public funds in our municipality.

We are collecting around \$46 million per year at present, and we still depend heavily on funding from the national government. Let me say that we are in a transition away from that—what we Venezuelans call a constitutional subsidy, given in accordance with population density and with the amount of mineral resources present and extracted. At present this revenue sharing process uses set percentages. Those subsidies satisfy about 20 percent of our economic and financial needs in the municipality. And besides this we have assistance from other organizations promoting decentralization, which we use for infrastructure projects, and which also comes from the central government.

Right now we want our model of re-structuring to serve as an example for others. In just a short time, two or three years, many municipalities in Latin America could emulate it. We have already had exchanges with the municipal government of San José, Costa Rica and with other governments in the hemisphere. We are ready to open the doors of the municipality to receive help and advice from all of you, and also to share on our part all we have, for your knowledge and enrichment. Now I will turn over the floor to Mr. David Uzcátegui, a consultant for our mayoralty of Caroní, who is now setting up the digital model of government that will be, I am sure, a model for many municipal governments in Venezuela and Latin America.

David Uzcátegui, President, EGT Consultants

Good afternoon. First of all I appreciate your invitation, and I thank the mayor for the opportunity to show that it is possible to implement e-government in a mayoralty. I also want to thank everyone present for bearing up with the projection problems we are facing, insofar as there's very little "e-government" in this presentation. I'm going to sum up some of the things we have done, and hope that our projection problems get solved.

We'll start with what we found. The municipal government of Caroní revealed a kind of inconvenient arrangement both in political and economic terms. But the program it promoted was not too different from that of any public sector organization. The system was dysfunctional. The people in charge of the organization were officials with no preparation for the challenge of attending a community as if it were their customer. Government acted just like a quasi-monopoly. But the reform that we are setting up starts from a bedrock principle. Any monopoly, whether it is private or public, is an evil. And so one of the fundamental aspects of re-inventing government in Caroní is putting in place a management model in which a monopoly no longer exists, not even the public monopoly of the mayoralty itself.

Another important feature we found in the municipal government of Caroní is this. Precisely because it was a monopoly people feel no responsibility or suffer the consequences of having to compete with others to provide the services they had been providing. This is a fundamental point in the process of re-inventing municipal government.

We can also describe the situation we found with respect to the information systems. With information systems in general, although it is all run automatically and uses a database and all those modern features, in practice there is no sense of obligation to respond immediately to people's needs. But if someone goes to apply for a municipal permit, that person should get an immediate answer. This is one of our bedrock principles when we talk of modernizing municipal government in Caroní: that the citizens can communicate and get immediate answers 24 hours a day to the problems they present relating to their society, their businesses and their government itself.

With regard to organizational structure, we found an incredibly large and bureaucratic body in which the government had become practically an end in itself. But we are on the way to modernizing this, changing this, reducing this as far as possible to allow the mayor's office to focus only on activities that can be considered strategic. Let us recall at this point the distinction between strategic and operational activities. There is a great deal of confusion about this, which is created on purpose. A mayor's office, generally speaking, when re-invention has not occurred, will assume social, planning, regulatory and service delivery roles. Many people think that it is a duty of governmental bodies to provide services. We will see later on that there is a different way to act, a way in which things will operate better.

All these tasks absorb the organization's energy and affect its ability to act in strategic ways. It provides services that might be provided better by the private sector in the community. It operates as a monopoly and so its officials in authority are responsible to no one, because they are protected from the consequences of their misadministration. More than anything else there is a culture without any responsibility toward the citizens. This is the structure we found in Caroní: heavy, inflexible, with personnel overwhelmed by procedures, lack of fluid communication, an excess of personnel, excessive concentration of power in the mayor's office—total concentration—and a deficiency in delegation of authority. With regard to human resources, a code of "inethics" existed under which employees were accustomed to the same level of pay no matter what was the outcome of their efforts. There was no relation between good work and compensation. There was no set response to the way people did their work, and they did not realize that their greatest responsibility was to serve the citizens.

What can be done about this challenge? First of all, you have to provide a new institutional arrangement with the national and regional bodies that have some say in what happens in the municipality. You have to take advantage of the national investment to create a plan of productivity that builds on Caroní's competitive advantages. As the mayor told us, Caroní has a great investment in basic heavy industry, but it needs a comprehensive industrial plan that leads to a downstream development in the small business sector.

Another important aspect of local public policy is the adoption of information technology, especially the Internet. In Venezuela, Decree 825 was promulgated in August of last year, at the same time the mayor took office. The decree makes it mandatory for all public enterprises to carry out most of their operations on the Internet. Another key point for Guayana is to take advantage of the present opportunities and become a pioneer in the use of telematics, among other things, using the vast intellectual potential of the professional and technical people who live there.

So what are the challenges faced by the mayor's office? I'll list them: institutional agreements to carry on projects at full steam; local economic promotion to activate all the new arrangements for economic processes, and the virtuous cycles of economic growth; organizational transformation which is our principal subject in this talk, because it leads to the creation of new means to provide services and overcome dysfunctional obstacles in the previous mayoral system; utilization of technologies and progress toward e-government. But the most important challenge of all is the organization of the community. We don't think it is sufficient to purchase computers and adopt the Internet. It's necessary to bring the community in as a participant and prepare it to support this process we have begun, to turn the municipality of Caroní into a participative and proactive democracy.

What is the strategic plan? It has certain strategic objectives: to provide the bases for enabling the municipality to become the pivot of the regional axes mentioned by the mayor; to generate the conditions for a solid and diversified local economy; to re-invent local government; and to organize and prepare the citizens. In that sense, the key areas of government are municipal planning, municipal finance, urban management, economic promotion and socio-environmental management. In the first place, an important aspect of municipal planning is creating a planning cycle in which many participate. In this sense the mayor's office in its first planning cycle has brought in the community to make the plan, elaborate the plan, take part in formulating the plan as well as the budget. This coming year we will take another step beyond just elaborating the plan to move to the control stage and to decisions over which activities and services are needed and what businesses will provide them.

One has to know how to introduce a technological system, implement a single entry to an Internet portal, and always be attentive to citizens. But our concept of portal takes it beyond just providing government services, speeding up transactions and allowing immediate transaction processing for citizens. We want to convert it really into a means for promoting the city and activating the economy, developing the industrial and productivity thrust needed to promote the development of Ciudad Guayana.

Another important aspect of this is the international technical alliances and cooperative agreements. Venezuela has traditionally been a country with an abundance of opportunities for technical assistance and cooperation, maybe because it tries to forget that others may perceive us as a wealthy country, something that is not true; Venezuela certainly is a country with an abundance of potentiality but it continues to depend on its petroleum production. To implement a balanced scorecard is one area in which we have progressed in our efforts to provide management planning and control under a system of management indicators. Our efforts are also going toward a new budget strategy.

There are some other aspects that I will address with these pertinent points. For example, with regard to municipal finance we are initiating a process to use the Internet for payment of taxes and for financial regulation of taxpayers and the self-employed. The Internet will also be used to provide immediate answers through interaction with the portal. In urban management, of course, e-government will have a role by helping to modernize and carry out an updated property registration. We believe that an automatic property registration, which through the Internet will become a management as well as a reference tool, will allow us not only to boost municipal

finances but also to succeed in our efforts to launch 9-1-1 emergency services in the coming year. In other words we'll have a virtual bank, not a banking institution but a means to analyze and provide projects for the region.

In socio-environmental management, we will use the parish boards. Environmental issues are very important in Caroní, and we want the community itself to take part and push forward initiatives along with the NGO's that will form part of the boards.

These are the details of the plan, by which the planning cycle, the technological innovations, the re-invention and the new governing structure will all be empowered at the same time as we increase our tax revenues—funds from our own resources—along with public funding from the national level, in an alliance with private investments attracted by the mayor's office. This question of alliances is important. The mayor understands the importance of working with others in the civil society, to solve the problems that depend on the cooperation of society with the mayor's office. That's really how to solve the social problems we experience in the region.

Now let's see what it means to re-invent government. First of all, we have followed the classic model propounded by David Osborne for re-inventing government. We have used the classic strategy, the central strategy, the strategy of consequences, the customer strategy, the control strategy and the culture strategy. We'll look at one of these, the central strategy. Here the idea is to improve the steering function, by eliminating all the functions of the mayor's office that don't help in reaching the goal, that don't contribute in a large way to the basic function of the mayor's office. We use three basic procedures here. One is to clear the way, eliminating functions that don't help to achieve the goals, or else passing them on to the private sector or the community itself. Another is to focus on steering the oars; that is, to separate the programming and regulatory roles from the provision of services and the study of compliance with them. In other words, the mayor will be concerned only with steering the process and anything that we might call an "oar" is handed over to the private sector or the community.

Another basic strategy is to correct our bearings—to improve the mayor's ability to do the steering. Here information systems play an important role, as well as the balanced scorecard and the planning cycle. These are all instruments that empower the mayor's office to reach the institution's objectives. The strategy of consequences has a lot to do with certain aspects of the "oars." I refer to changing the incentives available to vendors, using contracts based on results, not just with private vendors but also public sector providers. The mayor's office will create a public services corporation that will be competing with the private sector to get contracts from the municipality, and this is an important point because it leads to consequences. If you do a poor job your corporation will disappear and if you do a good job you'll have to compete with the private sector.

Another important part of this is performance-based management. There will be periodic evaluations of the units under the mayor's office as well as other public institutions and private sector vendors. You have to find out about their performance in order to improve it, in order to assign future contracts with the next budget. So the budgetary vision is changing; instead of being based on inputs it will be based on outcomes. The mayor will be purchasing outcomes, and civil society will figure in the control of these performance-based contracts.

Customer-based strategies mean finding ways to devolve responsibility to the citizens. Citizens will have the opportunity to evaluate various potential vendors of services from both the private and public sectors and choose between them. The citizens will have control over resources and will assign them in competitive ways, which offers a certain guarantee of quality in what they will obtain.

Control strategy means transferring control to lower levels of management. The mayor still has a certain level of control, but lower levels will have sufficient control to make their decisions, and most of all the community itself will have the control. This is an important part of the modernization process in Caroní.

The culture strategy means merely that all this will work if it becomes rooted in the culture. We're talking about a very radical, complete change. There is a process of managing the change that leads to really new behavioral habits, new cultures, and new symbols of the way to operate. And there's even more: many functional units will have names that reflect precisely this new management style. The organization will be reduced to a mayor who is the general coordinator with responsibility for the programming and regulatory process, and also for urban development. The mayor's office will have special units for management and financial support, for social development and for planning and budget. All the agencies that are related to these are going to be decentralized; these include local development, a micro-financing bank, the municipal services corporation that will compete with the private sector, finally the firefighters and the police. In all the functions that you are observing, including tax collection, review and audit, there will be a performance-based contract; even though they form part of the steering function they have to be reviewed as well. Of course there will be separation between the functions of tax collection and service provision!

The units of the steering function, basically planning and budgeting, will be joined by a new unit that handles the performance-based contracts. That unit will design the contracts. Management and finance will be responsible for the contracting and bidding processes, contracting with service providers. The functions of social development (including education, health, sport and culture) belong to units that right now are at a developmental stage; it's possible that they will be heavily managed with the participation of the community. After all, no one is more interested in improving education than the parents themselves, so that they are the ones who would find the right way to organize this area and make sure that budgets are allocated to benefit their children or to benefit health, sport and cultural activities.

Now to a quick review of the balanced scorecard. We use an analogy that comes from the private sector and is beginning to be used in the public sector. You have to understand, when we talk of finances in the framework of the balanced scorecard, that we refer to financing outcomes because we are in the public sector. In government, finances are a constraint and the fundamental objectives have to do with the social outcomes we want to achieve and measure in each area. In the case of financial outcomes we set up objectives, strategies, and indicators that keep track of economic, social and financial consequences or the actions of the mayor's office.

I spoke of the community as a customer, which means that it is the mentor of a citizen market as such, where the actions have to do with the immediate objectives that are to be achieved. The indicators are chosen to cover evaluations of management, satisfaction, amount of participation, acceptance of management's action, and public approval of the mayor. We understand that this is a political process and we think we have a political program to achieve, and we have to monitor whether we are really achieving those political objectives.

The investment in internal processes leads to some critical processes, in which the local government must achieve excellence and create value in the products and services demanded by citizens. We would have to choose our measures carefully at this point. For example, when we combine each of these perspectives and we want to measure the outcomes of an educational initiative, we have to measure not just the number of children taking part but the improvement in teaching quality or the number of children who later graduate from college, etc. The perspective of learning and growth has a lot to do with technology, with systems, with organizational processes, because you need to work for continuous improvement there in order to have the best chance of achieving the mission set for the mayor's office.

Now let's look quickly at the digital model that forms the second part of the process. When we speak of a digital model we mean the use of Internet resources. We are saying that use of the Internet leads to important organizational changes both inside and outside. For example, externally there is greater empowerment of citizens, with a huge amount of data and information to manage and with improved communications. And internally there are opportunities to increase organizational effectiveness: attention to citizen needs, increased speed of internal processes and, above all, help to become more efficient operationally.

In terms of e-government we can say that the decision to deploy it is a strategic decision by the State, in recognition of the transformation of industrial society into an information-based society. E-government should be understood as a way of governing, to increase the efficiency and transparency of management, and an effort to integrate the three economies—State, business and individual. It implies a radical change in the processes of organizational culture and leads to a cycle of optimization and increased development. We could describe the challenges as follows. There has to be an ongoing flow of information to allow for transparency, to obtain updated information in a rapid and easy-to-use format to achieve communication, to reduce transaction time and to optimize the process for effectiveness. We could say that our strategy could be named "immediate government"—that is, immediate responses to inquiries or necessities expressed by the citizens. And it increases of course citizen participation that translates into community support.

There is a need to integrate the current operating systems with the Web content and other developments. We view the portal and e-government in general for Caroní as an integration of all services, not just the services provided to the community. It is a means, a portal that is not just a mayor's office portal but a portal for the city itself and for all those relationships that can work to the advantage of Caroní. With the new platform in place the integration is achieved. On the screen we see the various links of information and communication: business-government, citizen-government, government-government and government-organization or institution and how each contributes to the desired end.

We could say that the process stage is made up of three important points: producing or publishing content information and format in a rapid and reliable way; favoring information and service transactions through processes; and analyzing and learning as the processes are being carried out, through a process of institutional intelligence, what we call an analytical connection, which leads us to new contents, new themes and new information processes. We could describe the detailed structure of this cycle as follows: developing an audience, in order to bring an audience. It's not easy to start but you have to find ways to attract the community, to get it hooked on the interactive content and the integrated interaction. You try to provide for all needs, to turn the mayor's office portal, the city's portal, into a means for everyone to access government when they want to ask about anything of personal or community interest.

Another aspect of the project is to hold on to the audience, succeed in getting them to return to the site, using a dynamic content that interests them, a pertinent content, and learning to capture information and learn from the process to finally publish again, to develop new services in a personalized way. What we seek to do is to look for a way to get services to people in a timely way, using institutional intelligence, identifying and keeping leaders who interact with others, who are motivated persons, who initiate things and take part in the process, who can be identified electronically so that their concerns can be addressed and added to the development process. Of course we want all this in real time.

So what are the elements we're developing? First, we import information and communication. Second, we link the Internet and the mayor's office. Third, we connect operating systems with the Internet, so that internal systems function through the Internet and not in isolation, and so the servers also use the system functioning through the Internet.

The system is being developed using management intelligence, the CRM systems which we can call "citizen relationship management"—that is a hybrid between cost and relationship management. This is management carried out in relation to the citizens, and it leads to a management analysis system, that helps us to plan in advance if necessary for community problems that might arise. There would be interaction among the inter-governmental systems, with links to others for providing general local services as well as national services. This is how it would function: basically through the portal which is a free access resource, a public site with immediate access, information and services thanks to an intelligent searcher, relevant news, official information, in an environment of participation and public service. Of course, behind all this is a depository network of information content that allows it all to operate adequately.

With regard to the Internet, it functions just the same as always except for one fundamental difference that has to do with security and the themes that are always true in internal functions. That is, the management systems, the message system, the office automation, the depository network and the self-service system, all of which we see as fundamental for this process.

It is important to point out that security would be necessary because of the internal matters that are covered. But most of the system, most of the great effort has to do with the citizens' portal. It is important to point this out in our presentation. The question of the portal is one on which the mayor's office has placed great importance. They also understand, however, that to start the automation process, the process of incorporating the Internet as a basic tool for establishing e-

government, we first have to structure the mayor's office to prepare the organization sufficiently to understand the process and simplify as far as possible the majority of the transactions and the internal processes that they have decided to include.

Now we will see how the data are organized. First of all, they are structured with integrated applications through the databases already in existence. We will not touch the administrative bases very much, or some matters such as revenue collections. Now certainly those need radical changes, but the present administrative system is completely mature and you would have to alter its interfaces or relations with other systems. Something such as a data warehouse for gathering information about citizens or taxpayers would help a great deal with the property registry project, and so would making cross-references that allow us to know more about the taxpayers, and in which ways we need to address collection efforts. But we are interested in not just getting more financial resources for the city, but addressing the state of human resources in the community and incorporating more people in the transformation process.

As for unstructured data, those can all be managed through distinct documents, by handling publications and distinct linking documents with distinct portals, to achieve a great repository of multimedia content. Using that we could integrate the subject matter, developing or converting the data into information and taking them all together to a portal for people to see and use. We could say that the impact of this is our recognition that the society has passed from systems of computerized institutions to systems of network knowledge workers, and we are now headed toward a worldwide information society where connectivity and usage tools such as the Internet are key in the process.

I'll finish with one more point. We have summarized our guiding principles for the new government of Caroní in eleven basic rules. Here they are. Government shakes things up by steering instead of rowing, by purchasing outcomes or goals to be achieved both by the public and private sectors and the community itself. In other words, it stimulates the community to take part in the process of providing services. We want no more monopoly. It is a community-oriented government that takes away from the bureaucracy the control of services and hands it over to the community. It prepares people instead of serving them. It is a competitive government that strives for competency in service delivery, and demands that public and private service providers compete to get contracts. It is a government that is oriented toward objectives that free up its structure, that eliminates internal standards in order to become more efficient. It simplifies its system as much as possible and frees up administrators to achieve their objectives. It is a government dedicated to results that rewards those service providers who overachieve. Not just that, we are exploring a way to reward those providers who perform the best and to take contracts away from those who do not achieve the desired level of performance.

It is a government dedicated to satisfying its customers, attending to the needs of the community and not of the bureaucracy. It is an entrepreneurial government dedicated not just to spending money but also to earning it. It demands that its investments yield returns. It associates with winners who will help the neediest persons. It acts as a forecaster that looks ahead to problems instead of providing services, and so works to solve them. It uses strategic planning in a preventive way and to be better prepared. It is decentralized and yields authority, seeking to increase participation and team efforts. It is oriented toward free markets, using market influences

and economic incentives in its re-engineering efforts. It encourages the private sector to take its part.

Finally, it is an innovative government that applies information technology to add value and to move forward to the new digital economy. This is our dream. Someone spoke previously in this conference and referred to e-democracy as some kind of utopia. In any case, all of us human beings are in constant need of utopias. We believe that an era of e-democracy is precisely the one in which there is less control over knowledge or, rather, complete freedom of knowledge, and economic and political freedom as well. On the other hand, there exists the potential to create a slavery of complete control over knowledge and great concentration of economic and political power in just a few persons.

In this respect we think that in our effort to achieve e-government in Caroní we are moving forward first with re-invention, with simplification, with a better organizational structure and—now the second step—a process by which we incorporate e-government as a means to moving forward toward the e-economy.

New Technologies' Effect on Forensic Auditing

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I'd like to mention that I've been married to an IRS agent for 20 years, and I've worked for a state government for most of my life. Therefore, I am pro-government, no matter what I might say today.

I actually have a novel that teaches governmental accounting, in case we have any professors out there. I am also the Editor of the *Journal of Forensic Accounting*, and I always need articles, especially about government, about the underground economy and about fraud. So I encourage any of you to send me an article.

I would like to explore today the impact that the new technologies have had on forensic accounting and the evidence that's used in courtrooms. Then I want to talk about some of the new technologies, not many. Then I wish to analyze the professional guidance and the rules of evidence in light of these new technologies. And I will provide some recommendations to assure that evidence remains admissible in the courtroom. Regrettably some of the information about evidence will have to do with the U.S. court system.

According to the GAO report that was recently issued, increasing globalization, rapid technological advances, a shift in demographics, changing security threats and various quality of life considerations are prompting fundamental changes in the environment in which the U.S. government operates. This is true of any government. These changes are placing a premium on increasing strategic planning, using integrated approaches, enhancing results orientation, improving reactions and ensuring accountability within the federal government.

This concept of revitalizing government is sweeping the world, and I believe that forensic accountants can play a key role in this effort. People are holding governments accountable for the resources that are entrusted to them. Often these resources are misused and when that occurs, the only recourse may be the court system. In the same GAO report, the government watchdog said that many federal agencies are mismanaged and unprepared for audits, hence the need for forensic accountants who can assist attorneys in recovering misused or stolen assets. Now, from the point of view of the U.S. fraud, you can use the False Claims Act, and I looked up the data. In 1999 alone, \$474 million was collected under this particular Act.

This new detective-style accountant must be like a bloodhound rather than a watchdog. Most of us accountants are watchdogs. I call internal auditors seeing eye dogs. Forensic sleuths, as I call them, should be like Howard Schilit; he is a fairly famous individual. I think he's in New Jersey. He basically helps investors to identify companies issuing questionable financial

statements. Anyway, you should be well trained in governmental accounting, with a broad expertise in fraud detection and courtroom testifying.

I did not put a whole lot in my paper about forensic accounting, but a forensic accountant is basically two things. He is an investigator, somewhat like a detective, and he has to have a lot of experience in the courtroom. So it is one or the other, or both.

Mr. Schilit has been characterized as a dreaded, powerful financial gumshoe that ferrets out instances of allegedly overstated revenue, and shows how companies artificially depress current earnings to assure a big gain in subsequent years. In other words, there could be, some day, someone out there that is doing the same thing about governments. Now, in fact, forensic accounting was really started and grew because of governments. Many former FBI agents, federal prosecutors and other white-collar investigators have swelled the ranks of forensic accounting and the lecture circuits, bringing to accounting and auditing new opportunities for fraud detection and training.

I'd like to give you a bit of history about accounting expert witnessing. The litigation side can be traced back as far as 1817 in a court case. And then in 1824 there was a young accountant in Glasgow, Scotland who issued a circular that advertised various classes of expert witness engagements he was prepared to undertake.

By the early 1900s, some articles started instructing accountants as to the proper manner in which to give expert testimony both in the U.S. and in England. Regulatory and criminal statutes increased the need for the forensic accounting discipline. I'll give you an example. Al Capone was caught by special agents of the IRS when they charged him with tax evasion. Accountants actually stopped the career of Al Capone. So therefore this is why I say that federal governments have actually created and made forensic accounting very important.

During WWII, the FBI had at least 500 agents who were accountants. Actually the number of agents in the FBI shrunk after WWII, but I think it is back up to about 600. One of the first articles about expert witnessing appeared in 1942. Joe Baker, an employee of the SEC indicated that the "increasing activities of the various federal agencies in examining and regulating commerce and industry have no doubt taken away from the accounting profession some of the work formerly performed by public accountants." However, Baker believed that private industry and individuals have a need for more expert assistance of skilled accountants to interpret and follow the laws, rules and regulations of the various governmental agencies, especially the testifying before these agencies.

Baker stated that criminal investigations undertaken by the federal agencies generally rise in three major ways. First, evidence of fraud is occasionally uncovered during regular, periodic examinations of books and records by government accountants, or because suspicion is aroused during these periodic examinations by peculiar circumstances encountered by the examiners. Second, evidence is developed by employees of the federal agencies scanning the trade journals and newspapers for items of interest, and by keeping in touch with each other, such as at a convention like this, and, more or less by keeping in touch with possible victims of fraud when it is

practical. Mr. Baker said that the third one, complaints filed by or on behalf of victims of fraud, got the greatest number of investigations.

Finally, in 1946, Maurice E. Peloubet, a New York accounting partner, published an article entitled, "Forensic Accounting: Its Place in Today's Economy." Interestingly we sometimes forget about history. Two other people came along and also said in print that they invented the term in 1953 and again in 1986. So we do have to be very careful what we put in print.

Now I believe that forensic accounting is really business's orphan as it has been pushed and pulled by the economic, finance, accounting and more recently the information systems areas. Several factors have basically slowed the growth of forensic accounting as a profession. The CPA profession has attempted to control it. I think they've given up on this. Internal auditors created their own certificate—the CIA certificate. Joseph Wells created his Certified Fraud Examiners, the CFE. And the economic profession and various certificate groups have fought to retain valuation issues. But none of these groups have been able to control forensic accounting.

There is, starting in May, a new certificate that will be offered and it will be called the CFA, or the Certified Forensic Accountant. This is by a group called American College of Forensic Examiners. You might want to check that out. I believe it is wise for an accountant in a government to have this certificate.

I believe a forensic accountant is like a three-layered wedding cake. The larger, bottom layer is a strong accounting background. A middle, smaller layer is a thorough knowledge of auditing, risk assessment and control, and fraud detection. The smaller, top layer of the cake is a basic understanding of the legal environment—the courtroom. The icing on the cake is a strong set of communication skills, both written and oral. In general, a forensic accountant is engaged in the combination of fraud detection and litigation support. We are detectives, and then we have to go in the courtroom and testify.

Two of the five improvements suggested by the GAO in their 2000 report dealt with fraud and new technologies. I will not cover fraud today, but I will talk about some new technologies. This report said that government agencies should give high priority to fully implementing existing legislative reform essential to modernizing performance management, financial accountability and information technology practices. Also, government agencies must continue to attack activities at particular risk of fraud, waste, abuse and mismanagement in order to save billions of dollars, improve services and programs, and strengthen public confidence and trust in government.

Last month there was a photograph in *Smart Money* showing a repairman working on a computer. The caption indicated that the IRS, "spent \$4 billion in the past decade to update its dinosaur computer system. Let's hope the new computer helps the IRS keep better track of federal employees. Recent studies found that almost half a million government workers in the U.S. were delinquent to the tune of \$2 billion in back taxes. More than 100,000 didn't even bother to file." My wife said to emphasize that we are talking about all government employees and not merely IRS employees.

Changes in document retrieval and analysis have had the most effect on forensic accounting. Wayne Yost provides a list of these changes. We will talk about a couple of these.

Under computer software we have various software programs utilizing data mining, with abilities to sort by many data elements and advanced graphics and presentation aids. We have statistical software, imaging software, electronic mail, spreadsheets, graphics and Internet resources.

Today's computer is equal to and in many cases superior to the older mainframe computers. I recently finished a video application form for the CBS Survivors program, and the video technology is truly amazing. They can do almost anything and make you look good. We have optical scanners and CD-ROM. Each original CD-ROM can store as many as 32,000 pages of document imaging. We have liquid crystal display panels and wireless Internet and fax modems.

You can find the AICPA site that I'm going to talk about on the Web when you get back. They have identified 35 different technologies. They divided them into three subgroups: issues, applications and technologies. They have also named the top ten. They are: security technologies; extensible markup languages; communication technologies; mobile technologies; wireless technologies including wireless networks; electronic accuracy; encryption; electronic authorization; remote connectivity tools such as the modem; and database technologies.

Time limitations stop me from talking about all of these, but let's talk about four of these technologies: electronic imaging, Benford's Law, data warehousing or mining, and e-commerce.

First, electronic imaging. Forensic electronic imaging is a process of scanning evidential and case-related documents into a digital medium, either a computer hard drive or a CD-ROM. A person can then sort, analyze and retrieve these documents without having to go through massive amounts of paper materials. There are often legal obligations in the U.S. to complete a civil or criminal case within a reasonable time frame, and often you may have to make full disclosure of all the materials collected.

With complex investigations, a manual system (books and so forth) of locating documents is time-consuming and probably does not provide as high a degree of confidence as an imaging system does. Cases involving large numbers of transactions, fund tracing and relationships between companies and individuals require some kind of relational database that can basically create links between two or more pieces of information. One such relational database is a chronological database. A chronological database helps investigators to compile a timeline of events, people, companies and places associated with the wrongdoing. By sorting the recorded evidence so that the date and time of movements of funds can be identified, a sophisticated database can help investigators establish links between transactions in different locations and currencies.

Revenue Canada uses a SUPERText imaging system to investigate large, complex tax fraud cases. They use a Novell 3.12 fileserver—a high-speed computer that acts as a remote disk drive—with a two 9-GIG duplexed hard drive. Two scanning workstation computers were attached, and two other workstation computers were attached for performing optical character recognition.

What are some of the positive effects of electronic imaging? First, an organization is able to fulfill legal requirements for custody and control over evidence. Evidential matters can be better preserved. The system enables more exploration of lower priority areas of investigation, increasing the probability of identifying civil and criminal wrongdoing. With the use of fuzzy searching and high-powered research capabilities, searches can successfully capture or “pull up” partial or “like” spellings even if there are uncertainties about the original material, such as the spelling of the word or the accuracy of the Optical Character Recognition. Photocopying costs are greatly reduced. Human resources previously used for extensive photocopying may now be reassigned for better use. The quality of the images in some cases is better than the original paper documents. Investigators with knowledge of the case are not needed for key fielding. Enhanced OCR technologies have made it less necessary to create all relevant key fields before searching the records. The imaging system can prepare, store and transmit detailed inventories and briefs quickly and accurately. A line of inquiry can be initiated and, using multiple windows, can be easily followed up while the documents are still on screen. Multiple investigators simultaneously can access and work in a shared document image collection, unlike uncopied paper documents. Two versions of the imaged documents can be prepared.

There is another type of imaging that has been in the news lately, and this is thermal imaging. The Supreme Court heard this case two weeks ago. I have not heard the outcome, so this may be unconstitutional. But certain law enforcement agencies have been using thermal imaging to catch people who are growing marijuana in their house. That is the case that is before the Supreme Court. Can these agencies go outside of your house at night, use this thermal imaging device and pick you out? So there are very few limits to technologies. And a man’s home may no longer be his castle.

Let me move to Benford’s Law. Dr. Frank Benford, in the 1930s, discovered that the distribution of initial digits in natural numbers is not random, but instead follows a predictable pattern based upon his formula. For example, there is an approximately 30 percent chance that the first digit in a number will be one, and only a 4.6 percent chance that the first digit will be a nine. With computers today, the Benford Law may be used to detect deviations in financial, tax and economic data. It is possible to detect fraudulent numbers and errors in bookkeeping or accounting by comparing the frequency of the appearance of initial digits in a list of numbers.

David Banks developed a Benford’s Law analysis with Microsoft Excel using a five-step process. First, he selects a population for analysis. Second, he assembles the raw data in a format acceptable to Excel. Third, he clears out non-numeric leading characters, such as letters or dollar signs, and decimal points. Fourth, he extracts leading digits and stores them for analysis. Finally, he executes the final analysis. While these steps can be executed manually in Excel, he says the task is shortened through the use of Excel macros.

Another analytical tool called Digital Analysis Tests and Statistics can help auditors be more efficient and effective by presenting various high level analyses along with the ability to drill down deeper if needed. This tool identifies process inefficiencies, errors and fraud by searching for abnormal digit and number patterns, abnormal round number occurrences and abnormal duplications of numbers.

Richard Lanza believes that Benford's Law can be used to identify fraud in large data sets by detecting potentially invented numbers in a number of situations such as investment sales and purchases, check registers, sales history and price history, 401K contributions, inventory unit costs, expense accounts, wire transfer information, life insurance policy values, bad debt expenses and asset and liability accounts. This powerful tool is easy to use, requiring no programming experience. It utilizes menus to guide the user through the audit, and requires minimal set-up time.

Let's move to data warehousing, or maybe you've heard of it as data mining. Data warehousing is a process, not a product, for assembling and managing data from various sources for the purpose of gaining a single, detailed view of part or all of a business. Data warehousing is an ongoing process and is never really complete. Data warehousing involves gathering data from various sources and is designed to give management a unified picture of the business or the unit. Data mining may be statistical in nature or may augment statistical analysis.

Professor Mike Granof gives five advantages of data warehousing that are unique to governments:

First, fiscal conditions of governments, far more than businesses, can be assessed only by taking into account economic and demographic factors that are external to the entity. For example, expenditures for public safety are likely to be affected by rates of crime. So this information can be gotten out of the data warehouse.

Second, performance of governments cannot be assessed by emphasizing any single financial figure such as net income or price/earning ratio.

Third, governments need to be concerned with distinguishing between information that is proprietary and that which can be made publicly available.

Fourth, because of the number of funds maintained by governments, statement users are often required to analyze funds in various combinations. Warehousing allows users to select information from various funds and then to aggregate to suit their needs.

Fifth, governments can provide multiple sets of financial statements, each on a different basis, not only for the government at large, but also for the individual funds.

Two authors describe the process of building a successful data warehouse: identify the government's use for the data warehouse; determine the scope of the project; organize the metadata and develop a data model; acquire hardware and software; and load the data into the warehouse.

This article also gives three examples of how data warehousing can be used. Blue Cross apparently generated information from their data warehouse to provide customers with a report of cost savings that they would enjoy if they purchased services through them. As a result they won new accounts from other insurance providers. A large multinational performed trend analysis on its warehoused receivables and identified customers who were taking unearned sales discounts. As a result it saved \$465,000. The National Football League used their data warehouse to track the

sales of their licensed apparel in each local market, reducing midseason losses and improving enterprise-wide profitability. Also they reduced the time for end-of-month processing from two weeks to two days.

You can also find a fourth example on the Web. The State of Illinois' Comptroller has an online data warehouse that has extensive information on state revenues and expenditures. Users can obtain up-to-date information on prior year and current year appropriations and actual expenditures by both agency and fund. The warehouse has two doors; one for the public and one for researchers.

Effectively accessing the information contained in the data warehouse can be done using simple query tools, report writers and so-called On-Line Analytical Processing data mining. Data mining may be used to reveal valuable information and compile relationships that exist in large amounts of data. Since data mining is a process and not a product, it may be used to identify previously unknown relationships. The most widely defined and known data-mining model is composed of the following steps: select the data; explore the data to identify potential relationships to be included in the data mining analysis; modify or transform the data into the format(s) required to apply data mining tools; model the decision or task and apply one or more data mining techniques to the data; and assess the validity and usefulness of the results.

The CIA, not the accounting CIA but the real CIA, uses data mining technologies to find valuable nuggets within thousands of documents and broadcasts in more than 35 languages. One computer called "Oasis" can convert audio signals from television and radio broadcasts into text. Once a voice is labeled with a name, the computer can put a name on any other broadcast by the same voice. For example, a broadcast by a bad guy can be automatically spotted and labeled.

Another computer tool called "Fluent" allows a user to conduct computer searches of documents that are in languages that the person does not understand. This data mining tool can be used to extract key information from a variety of intelligence traffic, such as on the flow of illegal drugs or on the track of illicit financial transactions.

Another example of data mining by a Web crawler has been denied by New Zealand's Inland Revenue. A Web crawler is a program that scans many Web sites, usually to gather information for the Web sites. A news Web site has reported that the Inland Revenue has used a program called IRD-WebCrawler to access a local auction site. The suggestion was that the tax department was using the crawler to try to identify auction site traders who might not be declaring income. If they were not using it for this purpose, of course the Inland Revenue now knows about it. I wonder if the IRS is using this technique.

Forensic accountants can use data mining, and we're talking about accounting now, to identify potentially fraudulent transactions for further investigation and follow up. For example, most of the fraud occurs with vendors. Vendor information can be analyzed and compared to employee records to identify payments made to a vendor with the same phone number or address as an employee. Additional applications analyze past transactions for variables present in fraudulent transactions and for use in flagging similar transactions before they are processed.

Electronic document submission—the chief aspect of e-commerce that affects forensic accounting deals with electronic document submissions and Web-enabled applications. A large number of you probably have filled out online surveys, or have purchased items over the Internet. I've never purchased anything over the Internet. But the data thus entered is gathered using fairly standard software for processing, data warehousing and mining. Privacy becomes an issue for sensitive data. But overall the soundness of the data remains the chief concern. Likewise, controls over Web-enabled applications are similar to those operating in an end-user environment; that is, they rely on the competence of end-users to effectively manage and control the application entrusted to them.

Let me give one example of the use of cyberspace to engage in fraud. This happened I believe last week. A Brooklyn busboy used e-mail addresses, Web-enabled cell phones and virtual voice mail in an attempt to steal millions from the top 400 wealthy people listed in *Forbes* magazine. Police found in his home 800 fraudulent credit cards, 20,000 blank credit cards and a machine to emboss them. In his Volvo they found documents containing (and this is amazing to me) photos, Social Security numbers, birth dates, home addresses, and mother's maiden names of more than 200 CEOs. I wonder how many of these types of people are *not* caught.

Last week Robin Cook, Britain's Foreign Secretary, told Commons that electronic technology controls essential services such as water, power and transportation. He said that computer hackers could now cripple Britain more quickly than a military strike or terrorist campaign if they managed to gain access to the computer systems of the key public services.

Now let me change directions. Generally Accepted Auditing Standards (GAAS), and again this is U.S., have always required auditors to, "Consider the methods the entity uses to process accounting information in planning the audit because such methods influence the design of the internal control." The extent and complexity of computer processing influences the nature, timing and extent of audit procedures. In completing this evaluation, the auditors should consider the following: the extent to which the computer is used in each significant accounting application; the complexity of the entity's computer operation, including the use of an outside service center; the organizational structure of the computer processing activities; the availability of data; and the use of computer-based audit techniques to increase the efficiency of performing audit procedures.

Basically, auditors must honestly and objectively evaluate their ability to audit certain technologies and obtain the necessary training or hire a specialist for areas they are not competent to audit. In general, information technology influences both audit procedures and evidential matters rather than specific audit objectives. Finally, information technology has greatly influenced the internal control structure of audit clients in two fundamental ways. First, the processing of transactions occurs faster and more complexly in computerized systems than in a manual system, causing inherent risk. So the first one involves inherent risk. Secondly, traditional internal controls such as segregation of duties and the existence of a paper trail are eliminated or reduced, causing control risk to rise.

Let's talk about evidence. Embedded in forensic accounting is this concept of evidence, at least in the U.S., England and certain other countries. In an editorial back in 1925, the *Journal of Accountancy* proposed that accounting educational institutions should start including in their

curricula the study of the law of evidence. It has still not really happened today. Forensic science is the application of science to law; it is the use of any scientific principle or techniques that can be applied to identify, recover, reconstruct or analyze evidence during a civil or criminal investigation.

Preparing for an investigation and securing and managing document evidence is important in determining the truth and building a criminal or civil case. Obviously, an important priority in document management is to maintain the soundness of all of the evidence. Since documents are often targets for destruction by theft or arson, any evidence should be stored offsite.

In a court of law, all relevant evidence is admissible, unless inadmissible due to another rule of evidence. In the U.S., Federal Rule of Civil Procedure 403 indicates that probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, misleading the jury, or by consideration of undue delay, waste of time or needless presentation of cumulative evidence. Hearsay evidence, again in the U.S., is generally not admissible, but there are many, many exceptions. Business records are a major exception, and a good lawyer can get most business records into a trial in the U.S.

A forensic practitioner needs to gather, preserve and present quality evidence. One author provides the guidelines for measuring the persuasiveness of evidence: The evidence must be relevant to the conclusion. Objective evidence usually is more persuasive than subjective evidence—for example, a physical count of inventory is better than estimates. Documented evidence is typically more persuasive than undocumented evidence—for example, ten letters from customers praising a product is very good. Third-party evidence is generally more persuasive than evidence from within the organization in question. Larger samples generally are more persuasive than smaller samples. Statistical samples usually are more persuasive than non-statistical samples. Supported evidence is usually more persuasive than unsupported evidence. Timely evidence is typically more persuasive than evidence produced after a delay. Authoritative evidence is usually more persuasive than non-authoritative evidence. Direct evidence usually is more persuasive than indirect evidence—in other words, a physical count of the inventory is more persuasive than perpetual inventory records. And evidence from a well-controlled and reliable system usually is more persuasive than evidence from a poorly controlled or questionable system.

We're talking about the U.S. again. In SAS No. 80, electronic evidence is now getting into investigations and into the courtroom. SAS No. 80 states that substantive tests may not be sufficient for a system predominantly consisting of electronic evidence. Thus, an auditor must perform tests of system controls to determine that they are strong enough to mitigate the risks with electronic evidence. By combining system control tests with substantive evidence, an auditor may issue an opinion.

In both criminal and civil situations, electronic evidence often will be collected. We have a new term called computer forensics. Some people call it black forensics. It may be defined as the procedures applied to computers for gathering evidence that may be used in civil and criminal courts of law. For criminal investigations, electronic evidence is sought by warrants or possibly subpoena. Electronic evidence for civil actions is sought through discovery requests such as interrogatories or depositions.

Computers and related equipment may be seized as evidence in a criminal matter, and such evidence must not be mishandled or accidentally destroyed. Steven Smith provides some tips here: close phone line connections to the model or other network connections so data cannot be removed from a remote location; videotape and label all connections and cables so that the equipment can be successfully reconnected at the lab, and possibly returned without damage; do not turn on seized equipment without advice from a forensic expert because booby traps may erase data if correct passwords are not used; review all files in a bit-system or “read only” mode to legally ensure that no alterations could have been made to the evidence; keep a recorded chain of custody signed by all parties and review verified copies with the original copy sealed.

Although beyond the scope of this talk, e-mail messages are influencing and affecting many government and business decisions. For example, e-mail messages have been a major contributing factor to the destruction of asset values around the world. Remember how much damage was done by the “Melissa” and “I Love You” viruses as they swept the world?

Two authors developed a comprehensive list of procedures to follow in investigating a computer crime scene. You need to evaluate the scene in advance. You need to map the area: determine the type and number of computers and media involved; obtain necessary hardware and software; make sure you have necessary tools in advance; and have necessary media for backups and copies. You need to set up your search team: assemble the required people and assign team member responsibilities.

You must establish a plan of attack: What is the situation? What is the mission? How do you execute the plan? What are the avenues of approach and escape? What are the communication methods? You must prepare and execute the search warrant. This includes knock and notice and document the notice verbatim.

You must secure the scene: immediately locate all computers in the building; post an officer to physically protect each computer; provide a location to interview suspects and witnesses; gather and examine computer data; complete the search; debrief the teams; identify documents and any new problems from the seizure.

These same authors recommend that the following steps be taken in seizing a computer: Start a chronological case work sheet. List the date, time and description of the computer. List the names of those assisting you and the witnesses to your activity. List the date, time and action taken as you perform your search. Record your investigative clues and leads, which you may follow up on later. Finally, list the date, time and program used to evaluate the computer. Evaluate the condition of the computer. Photograph the computer. Boot the computer from the floppy drive. Mark and tag all cables and hardware. Prepare the computer for transportation. Seize floppies and other removable media. Search the area carefully, especially for diskettes. Pack the property van carefully. Investigate for the presence of magnets and degaussing equipment at the crime scene.

A little humor provides a summary for governmental forensic accountants. A man mowing his lawn sees his neighbor come out of the house and head straight to the mailbox. He opens it, slams it shut and storms back into the house. A little later he comes out again, opens the mailbox and slams it shut. Angry, he goes back in. As the man is getting ready to edge his lawn, the neighbor

storms out again, marches to the mailbox, opens it again, slams it shut harder than ever. Puzzled by these actions, the man asks, "Is something wrong?" To which the neighbor replies, "There certainly is. My stupid computer keeps saying 'You've Got Mail.'" Apparently, he had not seen the movie with the same name.

The moral here is: Do not allow technology to make you a dinosaur.

As reported by the GAO, and this was disturbing to me, U.S. agencies are still in the early stage of transforming their organization cultures to improve decision making and strengthen performance and accountability. For example, the Governmental Affairs Committee recently reported that unauthorized individuals, both internal and external to the IRS, could have gained access to the IRS's electronic filing system and viewed and modified taxpayer data during the 2000 season. Government agencies must deal with technology issues or face severe consequences. The dreaded governmental gumshoe accountant must emerge with broad expertise in technology.

It is time for us to recognize that we have a range of enemies today, not only military enemies, but criminals, terrorist and others who have the same capabilities to do major damage to the infrastructure upon which we will all depend.

New Directions for Government Accountability in the 21st Century

The Honorable David M. Walker, Comptroller General of the United States

Welcome to the United States and welcome to Miami. It is a special privilege for me to be here for two reasons. The first reason is that this group is a very prestigious and very diverse group of individuals from government, the private sector and the not-for-profit sector, all dedicated to improving government performance, fighting corruption and ensuring proper accountability throughout the world.

Secondly, it is a pleasure to be here because I went to junior high and high school in Miami less than ten miles from here. At that time I spoke a lot more Spanish than I do today because I had more of an opportunity to speak it on a day-to-day basis. You know the old saying; you have to use it or you'll lose it. I understand more than I speak, but I would not venture to try to give a speech in Spanish. When I lived here during my high school years I also played on a national championship football team. Many of our rivals, including Miami High, had many Cuban-Americans on their team, and they called all their signals in Spanish. We used to speak to each other across the line of scrimmage, although I would not repeat some of the things we said in a public forum.

Nonetheless, as you know, this conference is dedicated to the important topic of accountability in the new e-government environment. This is clearly a very important and emerging topic, and it is critically important that transparency and accountability must become an essential and integral part of the new e-world. A number of speakers in this conference have spoken and will speak on the issue of the details of e-government and the challenges not only for government managers but also for government auditors. I'm not going to get into a great deal of detail; I would rather talk about a broader topic of relevance. But let me say that when we talk about e-government it is critically important that we balance the desire for increased speed and accessibility with the need to make sure that we get things right. It is equally important that we protect the national security of our nations and the personal privacy of our citizens. It is also key that we live in an interconnected and interdependent world, and that many of our challenges are shared challenges. And in order to effectively address some of the challenges that we face, including issues like fighting corruption, we need to work together like never before. In part because of the speed that is associated with the electronic world, whether it be in money laundering, whether it be in trying to cover fraud through trade transactions or other types of activity, it is clear we must work together as we look forward to the future.

There is no question that sound internal controls and modern, integrated and secure information systems will be essential for us to be successful in the new e-government world. It is also clear, as in any major challenge, that strong leadership, sound management and effective auditing will also be keys to success in this area.

Rather than getting into a lot more detail on e-government, I would like to talk about a broader topic. My topic is focused on government accountability in the 21st century. To do that, I would like to address some issues with which all of us can identify in various ways—things that bind us together, that demonstrate how we really do live in an interconnected and interdependent world with shared challenges.

Take the United States, for example. The United States at the end of WWII represented over 50 percent of the total global national product—over 50 percent of the economy worldwide. Today it is down to about 21 or 22 percent. And while we may at this point in time be the only superpower on earth with unparalleled economic, political and military might, we clearly have the need to work together with nations around the world on our shared challenges and in areas of mutual interest. No nation can stand alone. Every nation must work with others. In the accountability community, we have an opportunity to show the way. We have an opportunity to work together in a professional manner to transcend whatever political differences might exist and to focus on a range of professional issues that really count: how we can make our governments work better for the benefit of our respective citizens and how we can work together with our clients to make progress throughout the world not just within our respective borders.

In that regard I think all of our countries face three important transitions to differing extents. First, many of our countries are going through political transitions. In the United States, we have a new administration—the Bush Administration. We have a new Congress with a number of new key leadership players on committees. Many other countries are going through political transitions. We all are facing a new economic reality. On a global basis, in differing degrees, we are now transitioning from the Industrial Age to the Knowledge Age. In knowledge-based economies, the critical difference in attaining and maintaining competitive advantage will be people because people represent the source of all knowledge.

In addition, we all are facing a transition in time. Namely, we are at the dawn of a new millennium, with not only the psychological but all the other implications that it brings. I look back over the 20th century and see how much progress our individual nations have made and how much different the world is. No one knows what will occur in the next 100 years. I do have confidence that we will make great strides and that the world will be very different 100 years from now than it is today. And I'm very hopeful that it will be much better and much more together than it is today.

What are some of the key themes and key trends that affect our world in many of our countries today? The General Accounting Office's (GAO) strategic plan includes six of these things, and I'm going to add two more today. These themes have no boundaries. They transcend countries around the world. While some countries are affected by these trends more than others, virtually none are unaffected by any of these trends.

The first trend—globalization. That includes globalization of markets, globalization of enterprises, globalization of information, which leads to much greater interdependence. There are no islands on planet earth in a globalized world.

The second trend—demographics. Many industrialized nations face aging societies. For most of us our citizenry are experiencing longer life spans. The world is becoming more diverse. And there are increasing gaps between individuals who have the critical skills necessary to compete in a knowledge-based economy and those who do not. This is sometimes complicated by the growing so-called digital divide.

The third trend—changing security threats. We live in a post Cold War environment. The security threats to all of our nations and our citizens are much more diverse and are much more diffuse—weapons of mass destruction, chemical, biological, nuclear and cyber terrorism. For the first time in many years the United States has to be concerned with the issue of homeland defense and in ways that we would not have been contemplated just 20 years ago.

Quality of life issues represent the next trend. In a knowledge-based economy, education becomes even more critical. In general, it will be difficult for individuals and for countries to maximize their potential and to prosper fully unless they have a sound education system. If one does not have a good education, the chances are he or she will not have a good quality of life in a knowledge-based economy. The environment becomes more critical because we all live on the same planet. Clean air, clean water and scarcity of national resources do not stop at the borders of our respective countries. They are shared challenges for which we have shared responsibilities. Work/family issues represent another example of a quality of life matter. How do we balance work with the need to spend time with our families? Because if we don't focus on the family, we have seen how our society can suffer.

The next key trend deals with technology, which is the focus of this conference. There are good and bad things associated with the technology revolution. On the positive side, technology offers us an opportunity to decrease costs, to increase productivity, to assure quality and to enhance customization. At the same time point in time, there are some negative aspects or challenges associated with rapidly evolving technology. There are increasing threats to the national security of our nations and the personal privacy of our citizens. There is the possibility that people can become so dependent on technology that they lose the human touch, the human dimension. We must use technology as a tool. We must recognize it as a means to an end, not an end in and of itself. We must also recognize that while technology can be a powerful tool, only humans can exercise real judgment. As a result, we must get together on a face-to-face basis periodically to share experiences, to share challenges and to prevent drawing us further apart as human beings even though we may be connected electronically.

The last trend of GAO's strategic plan is the global push to improve government's performance and to assure its accountability to our respective citizens. This includes an increased focus on results; focusing more on the positive outcomes that our citizens care about and can identify with. Yes, we must fight fraud, waste, abuse and mismanagement but we must also to try to make government work better! We must work to give our citizens a better return on their investment in government so that hopefully over time we can also improve the public's respect for and confidence in their government. If the public does not respect and have confidence in their government, it is only a matter of time before the day of reckoning will come.

There are two other key trends. One is devolution—devolving more responsibility to lower levels of government to get closer to the people—to the state or provincial level and to the local level. Another dimension is privatization—privatizing certain state-owned enterprises or contracting out certain government functions to the private sector such that you have shared responsibility but dual accountability.

And last, but certainly not least, is interdependency—the growing interdependency of every nation to meet our shared and collective challenges in the 21st century. Many of our nations face some emerging budget and fiscal challenges due to several reasons. Number one is demographic trends and the burdens associated with social insurance programs. Secondly, there is the increasing cost of health care and the increasing demand for health care by all of our citizens. Third is the challenges to the tax base or the revenue base of our countries as it pertains to electronic commerce and the ability to engage in transactions in cyberspace. Some governments may or may not have the ability to effectively identify, enforce and collect revenues associated therewith.

What are some of the implications of these trends? I think there are a number. First, they raise several fundamental questions that many of our governments, including the United States, need to ask. How should government do business in the 21st century? The 21st century is a new ball game. The world today is fundamentally different than it was 30 years ago. It will be even more different 30 years from now.

Just yesterday I testified before our House of Representatives in Washington. The GAO designated part of our Postal Service as being at high risk of not being able to effectively achieve their stated mission, which is to provide universal and affordable postal services that link all American citizens together with themselves and with the world without government subsidies. One of the reasons that they were given that designation is because the laws and regulations that govern that agency were set in 1970. They may have made sense in the world of 1970, but they clearly do not make sense in the world of 2001. As a result, the management of that entity not only has to do things differently, but our Congress has to make some changes in order to recognize reality. We must make changes to adapt to the new world.

These trends also have significant implications for accounting and reporting requirements and for auditing approaches. We all know that whether you are in government, the private sector or the not-for-profit sector there are three key enablers that can be used to maximize the performance and assure the accountability of any entity. Those three are people, process and technology. People are by far the most important because people drive all three.

What are some of our selected accountability challenges for the 21st century? First, we have to ask ourselves in the government sector: What is the purpose of the financial statements and of accountability reporting? Who is relying on this reporting? Now obviously for many countries that need to borrow to finance government operations, the lenders obviously have a keen interest in government financial statements. They have a need and a right to timely, accurate and useful financial information that is subject to independent verification. However, some countries aren't in that category. The United States, for example, currently has public debt, but we're retiring our public debt. In addition, we may be approaching a time where we may not have much public debt, at least for a period of time. The United States doesn't borrow from other nations or from global

financial institutions such as the World Bank or the IMF. However, many countries and many individuals want to invest in U.S. government securities because of their safety and security.

While we all don't have to report to institutional creditors, we all have the need for financial statements and accountability reporting, wince we all have an obligation to report to the citizens of our respective nations. They have a right to know how their government is spending their money. After all, government has no money of its own. Government is there to protect the collective best interest of all, rather than to protect the narrow interest of a few. Government, through tax revenues and through revenues from other sources including state-owned enterprises, has a fiduciary and stewardship responsibility to use those funds prudently and for the benefit of all our citizens. In order to provide reasonable assurance that this is being done, one important aspect is periodic reporting and auditing of key information to provide accountability to our citizens.

We need to move towards global accounting and auditing standards. There are no islands in the 21st century. Even the United States must move in the direction of global standards. We should be an active player in trying to influence what those global standards are, but in some cases our standards aren't the ones that should be adopted. For example, in a knowledge-based world where the most important asset is represented by people, if you look at the current accounting and reporting standards used throughout the world, people are treated as a cost to be minimized, not an asset to be valued. While it may not be possible or appropriate to come up with a number to put on a balance sheet for the value of the intellectual property associated with employees, clearly we need more disclosures with regard to critical information associated therewith.

In addition, we need more focus in our reporting—not just on historical financial information but on future projections. We also need to be able to focus more on performance information—not just on the money, but what did the taxpayers get for the money? What were the results? What were the key outcomes? We should be able to produce a balanced scorecard to provide individuals with a fuller and fairer accounting or accountability of government's operations during specified periods of time.

From an auditing standpoint, we have to ask ourselves some very fundamental questions. What should we do? How should we do it? And when should we do it in the new e-world? The historical reliance on auditing financial statements for past transactions is quickly losing value. More and more decisions in the world are based upon the here and now, and they are based upon what is expected to happen in the future, not what has already happened in the past. That doesn't mean that we should not continue to audit historical financial information. We must do that. We also need to look at performance and projection information. Because in many cases, including in the United States, you might get a very different picture if you had a broader perspective on some of these issues.

For example, in the United States today we are experiencing budget surpluses. But GAO's long-range simulations show that it is very likely that in the future we will start experiencing escalating deficits again absent reform in certain government programs because of known demographic trends and rising health care costs. As a result, we must consider the long-range implications of current decisions because we may be able to afford many things today but we may not be able to sustain them in future years.

It is important not only to know how much money the government received and how much it spent, but what the citizens got for that money. What outcomes did the government agencies achieve to improve the quality of the life of its citizens, to protect the personal privacy of its citizens, to ensure the national security of the nation, or whatever? What were the results? Without that type of information, they don't have a full and fair accounting of government operations.

As the chief accountability officer for the United States, I believe it is my responsibility to point those things out even though sometimes people would rather not hear about it. That's part of our collective responsibility as accountability professionals.

All of the supreme audit institutions of our respective countries, of which GAO is the supreme audit institution of the United States, have a responsibility to lead by example. We have a responsibility not just to focus on today, but to think about tomorrow. We have a responsibility not only to assure oversight for government today, but to provide foresight and insight for the government of tomorrow. We must make our own agencies a model for government, a model for transparency, a model for accountability, a model for strategic planning, financial management, information technology, human capital or people management, knowledge sharing and other key areas. We must show the way. Not just because we have the ability to do so, but because we are the ones who evaluate others. We should be as good or better than anybody that we evaluate or audit. If we're not, we're hypocrites. We must be the rock. We must show the way. We must lead by example.

In summary, we have many shared challenges. We need to work together to share successes and to avoid mistakes. The world has changed fundamentally in the last thirty years. It will change even more in the next thirty. If we work together we can make a difference, not only for our respective countries, but for the world at large. We must lead, not follow. And we must try to make government work better for all of our citizens. We must be a model for others to follow. We must be dedicated to transparency and accountability, to fighting for the collective best interest of all rather than the narrow interest of a few. If we do, each of our countries and all of our citizens will be the better for it.

Thank you for your time and attention.

GRAHAM JOSCELYNE (United States): Given that the audience is pretty diverse, coming from many, many different parts of the world, is there one thing you would suggest that we as government financial managers should take home as the single-most important message?

DAVID WALKER (United States): Obviously in order for our countries and our citizens to prosper, there must be adequate transparency over what government does. There must be adequate accountability for how government uses the people's money. And so we all have a responsibility to contribute to that effort. But we must not just focus on today, and we must not just focus on financial information. We also have to think about what results the government achieves and how well positioned the government is for the future. So continue to fight for accountability today.

Continue to increase transparency regarding the here and how. But seek to expand the transparency and accountability issue to include performance data and key issues with regard to the future.

JAMES HAMILTON (United States): You mentioned the importance of valuing people at the center of the knowledge-based economy. There should be some sort of an accounting structure to do this. What do you envision as the framework of this structure?

DAVID WALKER (United States): I think the first thing we need to do is enhance disclosures with regard to certain key information dealing with the people dimension—the amount of turnover in the workforce, the amount of investment in training and education, the skills and knowledge associated with the workforce, the percentage of the workforce that is going to be eligible for retirement within a period of time. I can go on and on with regard to certain factors. I think there are certain critical factors on which to focus in order to actively manage. The ability to come up with a quantifiable number that can be recorded in the balance sheet or run through the statement of operations may not ever happen. What is important is that we recognize that people are the key, and that we start placing additional light on that even if it is through the disclosure process.

Integrated Financial Systems: Updating the Pioneer Brazilian System

Carlos Pullen Parente, Federal Bureau of Data Processing (SERPRO)

Brazilian Finance Ministry

Good morning to everyone. I'm very pleased to be here speaking with you about the Brazilian SIAFI, or the Integrated Financial, Budgetary and Asset Management System. It was a successful experience for Brazilian public administration. The system itself is a powerful instrument for administrative transparency and for combating corruption. It also helped to rid us of one of our presidents and some of our members of Congress. Every representative and senator has access through this system to the workings of the public budget. It is also accessible to the press, and I note that each time SIAFI is cited by the press it is described as a sure source of information, a trustworthy source of information on the entire process.

I am here to talk to you about SIAFI Century XXI, which is our present project, but I will also refer to SIAFI's history since it was begun in 1987, and emphasize its updating in the current version. I will talk to you also about its dimensions, its operating apparatus. The system functions with 317 administrative bodies. It has about 4,000 decision-making units and another 2,000 units that consult it. It has about 33,000 users registered in the system and an average of 2,400 simultaneous accesses out of a capacity for 3,000; on average there are 1,600,000 daily transactions. There are 8,000 workstations with a total capacity of 650 gigabytes and 59 external networks. That means that we are connected directly to 59 external networks of administrative bodies, meaning other bodies such as the Central Bank, the Bank of Brazil and other organizations.

The administrative bodies that are integrated with SIAFI, by their nature, are the public administrative bodies making up the three branches of federal government. It is important to underline that all three branches are present in the system: the executive, all direct administration, all the judiciary and the legislative, each with its own financial, budgetary and asset management transactions in the system. There are also the decentralized administrative bodies, the public enterprises and mixed enterprises that are included in the fiscal budget, such as Social Security. Others that take part are businesses that use the single Treasury account to receive their credits, or have an agreement with the administration to receive their credits and to pay their taxes directly to that account. Other entities include the statistical and philanthropic institutes and others.

SIAFI's universe of data, as estimated last year, includes about 14,200,000 documents that are recorded in the system. First of all there are documents of the government of Brazil, which are payment commitments, and they total 2,600,000. Next are 400,000 refinancings, 3,000,000 debt notes, and 400,000 orders for bank payment. It's important to point out that all payments from the public administration are made exclusively through SIAFI, which is why there are so many documents.

Let me give you an idea of the dimensions of the SIAFI network. Everywhere, wherever there is an administrative unit of the federal government—for example, we have points in Amazonas that communicate via satellite—there is communication on dedicated lines, with microwave technology of all kinds. There are connections with other countries as well—with our military purchasing offices, and with New York City where we have the finance desk of the Ministry of Foreign Affairs. The principal sites are in Brasília and São Paulo where there is a concentration of data, with perfect security in all the apparatus that are located in particular rooms. These are capable of withstanding earthquakes, the direct impact of aircraft, temperatures greater than 1,000 degrees and other extreme events.

The way SIAFI basically functions is as follows. The operators in their units enter the data. They don't have to understand accounting. They need only to understand the administrative action on which they are working. All these actions are codified in the system with tables of events. For each event the system understands the necessary steps and the accounts affected in each case. To record these documents, the system inserts them into the system of accounts and, from the system of accounts, makes the accounting entries that total about 50,000,000 a year. From that point we have a monthly statement of the account balance that is a source of information for the management system.

The initial objectives of SIAFI—and up to today we continue to follow them including for SIAFI Century XXI, as the basis of SIAFI Century XXI—are as follows. First, standardized procedures. Back in 1986 we had each of the bodies carrying out its procedures differently, in some cases without any information system or technology. From that point on everyone started to do things the same way. They enter the system, for example, to perform a payroll process. They enter the event code and all the entries are performed by the system. The second important objective was to optimize the financial, budgetary and asset management, to turn this into a source of information for decision making.

From the very start we aimed for transparency in public disbursements because an integrated system without a working technology would not provide any reliable information. Therefore, all activities of federal public administration have been done in SIAFI. This means that, for immediate control of financial and budgetary activity, it was important to have all activity recorded and made public two, three or four months after taking place. Not only that: the budgetary activity was not integrated with actual financial activity, but joined accidentally as it were at the end of the period. Beginning with SIAFI where actions were linked to their effective accounting, we have an immediate stating of asset balances and immediate budget figures, since the documents are being prepared online.

This also allows for a physical financial control of budgetary actions. This is a great objective, to record and have available the physical records, recording of all the steps that have been taken physically.

In June and July 1986 the development of SIAFI began, and the system had its launching in January 1987. By 1988 the single account of the National Treasury was implemented, and so was the Document of Electronic Collection of Federal Revenues, in which payments made to every unit of the federal government were recorded. Before that time each unit remitted its collected revenues

to the government through the banking system. These resources were frozen in the respective banks for two weeks until they were transferred to the single account. After the Document was issued, we reduced the process to a mere accounting entry and no payment was physically transferred from one unit to another. The Foreign Debt Module was also implemented, and from that time on all contracts for foreign debt were recorded in the system.

In 1989 we implemented the Official Credit Operations Module, in which Treasury promotes certain domestic programs that include public agricultural policy. In 1990 there was an integration of financial data from the provinces and municipalities in which the account balances of all these local bodies were imported into the system. In 1991 came the implementation of the Budgetary Scheduling Module that supports the system by having a unit inside the Brazilian Office of the Secretary for Budgeting. This module is part of SIAFI and exists at the level of an administrative unit, in which the businesses and administrative units present their budget drafts for consolidation, and an entry is made in the central budgetary system.

In 1992 there was an integration of the social welfare system with nearly 800 working units. That brought social welfare activities into SIAFI. In 1993 the module of data exporting was started. Keep in mind that we have 300 governmental bodies, each of which has its own way of doing things, and at the same time we needed to have these data exported easily into their internal systems. In 1994 we implemented an electronic user satisfaction survey that is sent once a year and allows us to get from the users directly their opinions about the system, what they think is working well and what they think is not.

In 1995 for the first time an adaptation of SIAFI called SIAFI/Management was implemented for strategic use, primarily with the budgeted version. SIAFI/Management is a version of the SIAFI data, which the managers can consult in any way they wish, with the desired information included. In 1996 something we call Reformulated SIAFI was introduced. In this system you can practically remake SIAFI as a whole from the same philosophy we had been using since 1987, but with new faculties that made it much more valuable for users. In 1997 there was the automatic reconciliation of the single account, by which we connect SIAFI directly to the Central Bank. The reconciliation used to have intervention from a single user if there was some problem. In that same year the general account balances of the Federal State were made available on CD-ROM for those who wished to use them. SIAFI/Management was also available from that time on in a general version, not just with budgetary information but also with financial and asset management.

From that time on we had the educational module, a copy of the SIAFI system that we provided for the use of universities and for those who were being trained on the system. It is being used in university classes, and it is continually being updated from the system currently in function.

In 1998 we set up payables and receivables in such a way as to achieve total control of the physical documents from the point of the transaction through the information flow concerning the financial flows. At the same time we implemented the administration of the internal public debt and direct deposit into the single account, at which time the bank accounts used by various governmental units for receiving revenue were closed.

In 1999 welfare payments began to be made electronically, and at that point we started our project SIAFI Century XXI. One of the most important things that took place in the last two years in Brazil was the issuance of the Law of Fiscal Responsibility and Financial Crimes, in which decentralized responsibility was achieved for fiscal management, and in which each manager is to be held responsible. We also have determined preventive actions in the face of risks, corrections of deviations, control *ex ante* and in process of all financial actions, responsibility for any non-compliance with goals, transparency and democratization of information, and responsibility for non-compliance with legal term limitations that apply to all governmental bodies (court of accounts, legislative, executive, judicial, provincial and municipal).

Another important program that began in Brazil last year by presidential order is called “Brasil Transparente.” In this program a great deal of importance is given to systems of management control, such as SIAFI, the budgetary system, and other systems for planning, personnel, dissemination of means for decentralizing management, transparency and social control. The program encourages society to take part in the entire control process, so that the entire society can learn if its particular local governments are receiving certain credits, if they are in charge of certain responsibilities.

Now on to intensive application of information technology, a theme covered by many in this conference. SIAFI Century XXI differs from SIAFI as we know it today, insofar as it is a budgetary and asset management tool with new faculties, a new scope, with modules of budgetary planning and budgetary activity, financial scheduling and activity, accounting and other modules. It includes the strong integration of the National Treasury’s information systems. From now on we will have systems that control the resources, the debts, the official credit operations, sovereign guarantees, and we will also integrate the internal management of the National Treasury. We have the system in production, as well as the information systems of the National Treasury and all the accompanying fiscal information from the states and municipalities.

The main objective of this system is to help support all the present objectives of SIAFI and also open new possibilities of control, transparency, and reflection of all of society in the system. In the section on budgetary, financial and asset administration, we will have a planning module (which we don’t have now) and budgetary scheduling. In Brazil we had a significant change in our budgeting processes, a change in the philosophy itself, toward a direct focus on the work program where one and the same language is spoken from the budgetary planning stage right on through to the financial action.

The philosophy covers areas such as budgetary action, scheduling and financial action, statutory and voluntary transfers, appropriation of fiscal revenues, appropriation of cash expenses and the National Treasury report. Given that the system has an accounting structure, the greatest changes are: to facilitate the management of the public accounts and the acts reflected in the single account, allowing everything to be passed along with all the information in each account (some details such as the current account can be included), records that include the quantitative and qualitative features, records of accounts, events and documents made by the divisional units, and keeping the basic philosophy.

This all means that every governmental body will be including its own particular features in our system. There will be transparency in the use of events that underlie the accounts. There are other features that I don't have enough time to mention. But in the future we have the goal of allowing the user to not have to provide so many event details. It would be enough to match the system—with its documents and events—with the data being provided by the user. The system will understand what the event is, and beginning with the event can go to the sources and figure out what the accounting entries should be.

There are functional safeguards for each governmental body. We now have the security system and access control. We have an electronic set of steps that each user receives. From that point each governmental body and each user functions with its own individual steps. There are facilities for even more accounting demonstrations for fiscal and management accounting that permit the gathering of strategic information, to make this in fact into an information tool. The fiscal side of things receives even more respect because we have turned the system into an important managerial tool.

In order for us to have daily balances for each of the budgetary, financial and asset accounts, we could restrict the system to reporting monthly or instantaneously. As to information from the National Treasury, we have the management of physical resources, financial resources, data for use in analyses and syntheses, sovereign guarantees, domestic and foreign debt including securitized debt. We will have official credit operations, foreign contracted debt, and all of it integrated so that we will be able to see the financial flows coming from Treasury.

We also have supplementary information on the debt of states and municipalities; projections and simulations of risk levels produced by the National Treasury; management at the National Treasury, including the merit system administration and increases in wages. The national wage depends on the evaluation of all activities. It includes the legislation system. We have nearly 4,000 new law and standards each year in Brazil. So the legislation system is always very important. We will have knowledge management that is becoming more important every day. We will have management of information and activities for the provinces and municipalities, information records of the financial situation of the states and municipalities. We will have supplementary information about fiscal adjustment in the states, and we will be able to follow the compliance of our political leaders with fiscal responsibility and to see the incidences of fiscal crime at the state and municipal levels. We will be able to estimate and calculate indicators of revenues and expenses.

Here are some general features that you expect from the system. It is available 24 hours a day, 7 days a week, and it is adaptable to legal, organizational and functional changes. We receive nearly 1,200 change requests each year, and we expect the methodology we use to facilitate them. The features include background details on individual transactions, data exporting, and increased interaction with other systems such as purchasing, personnel, planning. There is an important movement in Brazil related to these issues, called "Brasil Transparente," where the purchasing, public works and personnel systems are involved. We have logical, physical and access security.

We have online documentation, and we look for SIAFI Century XXI to be completely active with its own manual and documentation and system of data integrity. We want to bring more users

into the system; we have about 33,000 users today and we need to give them effective training. The portal for SIAFI XXI is the exact place where even greater transparency will occur with financial statements available for the entire society. We will have management information, trend analysis, projections and what-if scenarios, quantitative performance indicators, integrated use of economic indicators in management, and devices to allow greater decentralization of data, so there will be less dependence on the connections within the system and the greatest improvement possible in the system.

Besides all this we have the solution model that uses a multi-faceted technology to separate the presentation from the scenarios we'd like to show. What this does in fact is to broaden the scope of the system by using the Internet at the society-wide level and intranet and extranet for system operations. We have concern for security, which is clear from our use of user checks, and obligatory digital certification processes created in line with the requirements of the government's certifying authorities. These processes presuppose digital certification, Web applications which can incorporate digital signature, integration with market-based firewalls and the use of products that are encrypted channels.

We also created prototypes for evaluation of the new technology, to see whether we could depend on the new technology for a system that is so critical and important for the country. There are several prototypes, such as embedded data, embedded logic and applications, and embedded presentations. At this point we have to create the directions, strategies for the use of the chosen technologies and strategies for implementing the system.

What we intend to do is to have the planning and budget scheduling model ready by February 2002, the accounting structure by July, and the budgeting and financial activity module by January 2003. Thank you.

ENRIQUE COSIO-PASCAL (Mexico): I want to ask you how the foreign debt module was integrated in SIAFI. In Brazil, traditionally the management of foreign debt is handled by the Central Bank, in particular FIFSA where they have an up-to-date management system for this kind of tracking work. And I'd like to know how you integrated the work of the Central Bank, and particularly FIFSA into SIAFI.

CARLOS PULLEN PARENTE (Brazil): There are two kinds of foreign debt control. The first is in the Central Bank, the agency responsible for all debt payments. And inside SIAFI we have all the foreign debt contracts recorded by individual letter or by governmental body, so we can do all the calculations, and create all payment tables for each contract, not to mention our capability for budgetary scheduling. These payments, at the moment they occur, involve us through our linkage with FIFSA, as well as foreign exchange issues through financial officials from, for example, the Bank of Brazil; then the payment authorization is passed through to the Central Bank which makes the payment. At one time the Central Bank had all the responsibility for debt payments. Now it is being controlled within Treasury, within SIAFI.

RICHARD LAYTON (Honduras): Could you say some more about when the system is audited, who audits it and how it is accomplished? Who has audited the system outcomes? Is it

the Comptroller General of Brazil? And if he does it, how does he do it? Has there been any report issued by SIAFI regarding the presentation of the resulting financial statements? How are the data that are produced by the system made available to the public, as a means to create awareness among the public about the outcomes of government actions and the management of the public treasury?

CARLOS PULLEN PARENTE (Brazil): Regarding the audit of the data, this happens at different points in the system. The first occurs when the users have the data. Later someone searches for the documents, which are the actions of each governmental unit. Then someone else searches for the continuations or the bases of those documents. At that point another body assumes the accounting control and reaches an accounting confirmation of the accounts. After that, under the responsibility of Treasury the system creates the general balance sheet of the federal State, which is affirmed by the National Treasury and is sent to Congress for its approval along with the modules for the Treasury Court and the Court of Accounts. All the accounts from all the governmental units go on to these courts. There is not a system audit, but rather an audit of the data.

The SIAFI system, because of its technological platform, is clearly not available to all the society, but congresspersons and senators from all political parties have complete access to all information in the system. The political opposition is the most active user, and is most convinced that the information made available through SIAFI comes from a sure source. The press uses SIAFI more as time goes on as an information source and passes its findings on to the society. This new project involves a portal through which, it is our hope, all the information will be available to everyone.

JOSE ANTONIO BORJA (Honduras): Do you have an integrated financial law in Brazil? And has the law been modified? In many countries there are diverse laws, one for Treasury, one for the Comptrollership, one for public credit, etc. If this is the case, is it necessary to modify the law to permit SIAFI applications or to create a favorable legal climate? Is there such a law or modified law?

CARLOS PULLEN PARENTE (Brazil): I should say there is, and more so all the time. First of all, in SIAFI public accounting is done inside the National Treasury, so it begins in integration with SIAFI. There is not a distinct system lying between SIAFI and accounting. A couple of years ago it was created and we have a distinction between the standard legal systems and the accounting, financial and internal control systems. And as time goes on this distinction is affirmed.

GRAHAM JOSCELYNE (United States): This is a very comprehensive system that you have put in. One of the key ingredients of making any system of this nature work or not work are people. We spoke about that in the first session. I'd like to know what you've done to train, re-train or change the culture of your organization so they can actually make full use of the system.

CARLOS PULLEN PARENTE (Brazil): When the system started out there were some really great efforts to get out to others some idea of the system's mission. The first objective was to create a system that could first of all attend to the needs of the transacting units of government. Those units would have their own wishes satisfied, and use the system for their own benefit, to

benefit them in their work. This was where reliable data came in. Training began for persons who could take the message to their agencies and continue there the same training. Later on we concerned ourselves with the educational module, to put in place distance learning. Today our greatest concern is to put in place more than ever an intuitive system, then a distance learning system that is available to everyone.

DAVID WALKER (United States): It appears as if what you now have is an integrated system that includes not only budget data but also accounting and reporting information. I would imagine that, when you started, every department or agency had its own system. Did you design this in parallel with those, so that over time they got rid of their systems and now you have this one system? How did the transition process work?

CARLOS PULLEN PARENTE (Brazil): In 1986 we had some agencies with their own information systems and using information technology, but not everyone. A system was created for general use. Its greatest achievement was its immediate use by the judiciary, the military and the direct administration. From that time on the agencies started using it, leaving aside their own systems (except for the Budget Office), and now we have 317 taking part. But to get it going in the beginning we had all the direct administration inside the system, and all of the federal judiciary, and they left behind the systems they had. You depend on a lot of political will, too, from the highest levels of authority in the country.

JORGE RODRIGUEZ (Ecuador): I am a member of the Anti-Corruption Commission in Ecuador. I note from the presentations we have heard during the past three days that we are possibly building a true Tower of Babel in Latin America, in which each country talks about its system in a different language, as they modernize in the direction of e-government.

As a technical expert in this matter, and from the largest country in Latin America with a gross domestic product larger than that of Spain and Portugal combined: how do you see the problem that is arising between countries and even inside them? We saw yesterday that there are a number of municipal initiatives in which they speak their own language. And after all this, we need to consider the multilateral organizations such as the World Bank and the IDB. They are aware of this because they often finance the true Tower of Babel that we are building in Latin America. How do you think that in a given moment we can reach standardization of principles and greater transparency in government, and improve our interconnections in this global era, this new world, this information age?

CARLOS PULLEN PARENTE (Brazil): First of all, this is something to which I have given some thought at this conference and before. As I look backward from today to 1987, I see that since that time we are making *e-gov* in Brazil. It has also been mentioned here that this is a distinct development from *internet.gov*. SIAFI has been *e-gov* from the start. We have systems, of course. I regret that we have incompatibility, which is the flip side. Initiatives such as SIAFI in Brazil have been conceptualized since 1987, and the World Bank and the International Monetary Fund have been aware of them.

The conceptual side of this has been exported to other countries, but not the system. We have promoted concepts such as the single account code as something intelligent that could be adapted

for use elsewhere. You cannot obligate others to follow our line of reasoning. We can try to make ourselves depend on each other, as is happening in other aspects of globalization. We could speed up our development and share the difficulties we all have. We are facing today a new technology and we must not merely adopt the technology. That is not what motivates us, but rather attending to the work processes and information needs of our customers. I would like to see more integration with others. We have welcomed delegations and we have visited countries ourselves, and we have spoken about this. We all have to make the effort in this regard.

JIM WESBERRY (United States): This presentation is exactly what the conference organizers wanted to happen, and we thank you and the government of Brazil. There is a common experience that all of us share in this room and it is an important one. All of the 62 countries represented in this room, and the 138 other countries not represented here, are facing the same challenge as you have faced in Brazil since 1986 until now. Some of us are at the point you were in 1986, some are at 1988, and some are at 1990. Each country is struggling to get a handle on its financial information and share it with its citizens.

You have a magnificent experience in our hemisphere. What advice would you give to the international agencies and the governments? More important would be your advice to the international agencies, since they think they can finance this kind of project in a country for 18 months, put a system in place, then wash their hands and walk out. Or maybe they stay 36 months and then leave. You have more than 15 years of experience in this. What advice would you give to the international agencies and the project managers in these countries?

CARLOS PULLEN PARENTE (Brazil): First of all, there is something important about this system, about our experience all these years. And that is that SIAFI is a living organism. It is not static. You can't put in a system and think it'll be okay just because it has been implemented. I say this because each year we get 1,200 requests to make changes in the system. Although some of these are small changes, the volume of the requests shows that there were changes in legislation and new regulations and standards.

You have to create something intelligent for use inside the country, not just something that the international agencies want. It would certainly be an experiment to transfer our system to Ecuador, for example. Some things must be created to order, to respond to the philosophy or the way of life of each country. Don't just create something that has to be discarded later, but something that will respond to the same philosophy and that will invite the participation of the citizens of that country. Make something that can be assimilated by the country, not just something that was made somewhere else and then brought to the country.

I think that society has changed in Brazil and everywhere else. I think that the technicians have the greatest intentions to work eagerly on something that will move the country forward and will serve the society. That is why we struggle so hard for transparency and for fiscal responsibility. It's not just to take on responsibility, but also to work with a free effort. I think that this awareness brings us to the following necessity: to carry the society along with these developments in government, not to achieve development of government alone. And certainly not to keep the international agencies aloof from our national reality. The key is the intelligence inside

the system's inner workings, the ability of the system to assimilate an intelligent process, and then the ability to follow that process in the country. And this can be done.

Video Presentation—The International Anti-Corruption and Good Governance Act of 2000

**Ileana Ros-Lehtinen, Co-Author of the Act and
Member, U.S. House International Relations Committee**

Narrator of Video: Congressman Ileana Ros-Lehtinen has served in the U.S. House of Representatives from Florida's 18th Congressional District since 1989. Born in Havana, Cuba, she came to the United States when she was seven years old. Congresswoman Ros-Lehtinen currently serves on the House International Relations and Government Reform Committee, and has chaired the Subcommittee on International Economic Policy and Trade.

Q—Ileana, you are one of the principal co-authors of the new U.S. anti-corruption legislation. Could you tell us a little bit about how that came about?

A—Well, there has been growing concern about bribery, corruption, terrible practices going on across the world, especially as it impacts upon our international and federally funded programs. And so we wanted to take a real hard look and see what we can do to help these developing nations wipe out bribery, corruption and scandals. Why? Because all of those factors undermine democracy. They destabilize the country. They work against democratic reform efforts, and indeed they work against U.S. efforts. So we were proud to support this law and it received strong bipartisan support. Congressman Sam Gejdenson from Connecticut and Congressman Jim Kolbe of Arizona, a Democrat and a Republican, were the cosponsors and I worked very hard along with them as did other members of the International Relations Committee to make this law a law, to make this dream into a reality. Because we want to wipe out bribery, corruption. All of that undermines democracy and I think that binds us as a nation. It is a bipartisan issue. And that's why I think it passed so strongly.

Q—Why should the U.S. tell other countries how they should clean up corruption when we have corruption in our own country?

A—We certainly do and it may seem hypocritical. Some people say, “Who is the U.S. to tell other countries what to do when we have so much corruption here? And we do have corruption, maybe more so than in other countries, but it has to do with the high levels of money, of commerce, of investment that flows through this super power nation. We also have a more open system, a more transparent system, where scandals are out in the front pages. In many countries, unfortunately, hiding the corruption becomes part of the custom and practice of those countries. I think that we have an obligation to not only clean up our act, we must also be the prime example for other countries. We've got to realize that when countries have a foreign assistance program, they've got standards to which they must adhere. It's our duty as a super power, as a nation of laws, as a

nation of democratic ideals, to clean up our corruption, do away with any bribery and any problems we have in investments and show a good example to other countries. We need to show them that we are a nation ruled by laws and that the people who are caught up in bribery and corruption do pay their time. There are laws that we obey and people who don't obey the law go to jail. We have to set a good example. Yes, we have corruption here, but we want to eliminate it. It is not part of the government system; it is an exception to the rule. Other countries have to realize that in order to receive U.S. dollars, they've got to live up to certain standards themselves.

Q—As you know, USAID has clauses requiring financial reporting, accountability and audit in all USAID agreements and grants. So why is there anything else necessary?

A—Yes, USAID really does have some wonderful programs in place but we want to go just one step beyond to make sure that all that accountability is in place, that we do have transparency. There is a tendency for countries to think that since they're getting this help free of charge then there is no accountability associated with it. We want to establish right from the very beginning that there will be accountability; there will be transparency in the entire process. The laws that we have now are good. We want to build on them. We want to strengthen them. And we want to ensure that the countries know that there will be accountability and that we will be watching to make sure that U.S. taxpayer dollars are used wisely.

Q—Does this new law apply only to governments?

A—It applies equally to the private sector. We have found out that corruption takes place in the public sector; it takes place in the private sector. Unfortunately it has no boundaries, and neither does bribery or extortion. So we want to make sure that the private sector is held accountable in the same way that the public sector is. We want to make sure that the business climate is healthy, that the economy produces more, that everyone feels safe in their workplace and that investors feel they're getting their money's worth. So it applies equally—public and private sector; they will be held accountable. I think that's a good thing.

Q—What else is unique about this law?

A—One great feature, a very unique feature, about this law is that it can be applied to countries that are otherwise prohibited from receiving foreign assistance. We can channel funds to fight corruption through the civil society, civil groups, through many religious organizations, through non-governmental organizations that have really been part of the clean-up process for a long time. That comes about by having a free press that exposes the corruption, that exposes the extortion and the bribery. Then these religious organizations, non-governmental organizations get involved and we can channel the money to them. In that way we can help the government clean itself up.

Q—You mean you can channel funds through civil society organizations that collaborate with governments to fight corruption?

A—Yes. We have seen that these civic organizations, religious organizations, all of the civic-oriented groups can really have a hand in cleaning up the country. They work directly with the government. The government sees them as a partner and not as a hostile entity. So we can channel

the money through them, through those non-governmental organizations. They get it in hand. They have a public-private type of partnership and we get to clean up government. So it is a very effective way of channeling the money to those organizations that can really fight corruption best.

Q—How much does the law appropriate for this purpose?

A—There is no money appropriated for this effort. It is not an appropriation act. It is actually an authorizing bill that will permit monies to go into these future programs. As they get the funds for program implementation, anti-corruption will be part of it. So in a way there is money related to it, but this is not an act that actually provides money for anti-corruption activities. It will be part of their authorization bill for future plans as they develop their budgets.

Q—So then this law will not cost the U.S. taxpayers any more money?

A—Well, yes and no, because it will cost a little more money to implement new programs and retrofit ongoing programs, and it will certainly cost a little more money to develop new programs to fight corruption. But it is one of those programs that really saves money in the end. It is an investment because anytime that you're fighting corruption, you're fighting bribery, you're fighting extortion. It gives us a level playing field and helps the taxpayer to get more bang for his buck. So in a way you can say that it saves the taxpayers money in the end even though it will be costly to implement new programs or to feed money into ongoing programs. In the end it saves taxpayers money because the U.S. is founded on free initiatives, making sure that we have open markets, making sure that we fight corruption, making sure that we have a level playing field. And any time we can encourage that in our market approach to other countries, U.S. businesses will profit, and so will the businesses of countries abroad.

Q—It seems as if this law is unique in that it specifically mentions some of the important areas of financial accountability that are often taken for granted, and often not emphasized in foreign assistance efforts. Can you tell us about some of them?

A—Yes, certainly this law is unique and we've taken a really dramatic approach to this. We mentioned the importance of open budgeting processes, adequate and effective internal control systems, suitable financial management systems, financial and compliance reporting. We also mentioned the need to support Offices of Inspectors General, and we highlighted the need for professional, accountable, transparent financial management. Why did we do this? Because we have seen that we want our tax dollars to be used to the fullest possible extent. We have many stories—and there are terrible heartbreaking stories of natural disasters that have taken place in Central America, El Salvador specifically, that have taken place in India, in many places—where U.S. taxpayers' funds and the financial assistance programs were not used to the best extent possible because of corruption and extortion or bribery. So we want to make sure that those countries are accountable to their constituents as we are accountable to our constituents. This law is very firm. It is very direct. We want to make sure that all of the countries understand that we're taking a different approach. It is not business as usual. We're going to hold those countries accountable because that's the best way we can solve the world's problems—by making sure that those countries and those civic organizations involved with the funding are really using the money

in the way that it should be used. That's the way to help humanity, and that's the way to make the world a safer place.

Q—What are the real teeth in this new law?

A—Well, the new law precludes any punitive measures. It really depends on the goodwill of the civic groups, of congress, of interested parties. It depends on making sure that we can all agree that fighting corruption is something that is important to us as a country and something that's important to every country. It requires an annual report to be given to the House Committee on International Relations, to the Senate Committee on Foreign Relations and to the appropriate appropriations committees. Let me just read you exactly what it says. It says, "We want to combat corruption, improve transparency and accountability made under U.S. government funded programs and initiatives through U.S. diplomatic efforts and by county and country officials themselves." Why is this important? Because we want to establish a feeling of goodwill. We don't want to go to a country and say, "We're going to punish you." No. We want to make sure that through this accountability, through this reporting mechanism that we have put in place, we will account for every dollar that goes to the people so that they can help themselves. And this annual report will be heavily and intensely scrutinized, especially by the appropriations committees. It will not be put on the shelf unread. It will not be just a historical document. It will be a real report with teeth in it, and we want to make sure that the countries know that even though it precludes punitive measures, it is a serious report. We will be looking at it and the appropriators will really be examining it to make sure that those countries are using the funds in the correct way, and that is to help other people.

Q—So what do you expect will be the result of this new legislation?

A—I think in the short term we will find out that countries are starting to value democracy and are ready to join the movement against corruption and the movement in favor of ethics. I think in the medium run you will find a greater focus on fighting corruption so that those people involved in those evil acts will know that they will be held accountable. But the greater goal is to strengthen democracies, to make sure that the countries value freedom from corruption, that they value ethical business practices, that they know that they've got to be more transparent in their business dealings. It makes it more of a one-world economic system where we value honesty, and we want to make sure that people are fighting against corruption. So I think it has both short-term benefits and long-term benefits because it strengthens democracy and it moves us against a corrupt business environment.

Q—Ileana, thank you so much for being with us for this special presentation.

A—No, it is I who should be thanking you because we're so happy to be a part of this 15th annual conference. It really is remarkable that you've been doing it for so many years. I'm especially pleased that it is taking place at Florida International University, my alma mater, where I received my graduate degrees and undergraduate degrees. It has a special place in my heart. I'm sorry I could not be there with you to really express my warm thoughts and my thanks for holding this conference in Miami. I think your goals, the goals of the conference are really the goals that have strengthened America, the goals that have built the United States. They are the principles of

fighting corruption and having clean government and having transparency in everything that we do. Your organization really stands for the very ideals and the very principles that the founding fathers stood for in this great country. That is what we're trying to do internationally, to make sure that we're all aspiring to clean up our government, to have citizens feel better about their system of government, to respect each other's differences. And we want to make sure that we all understand that extortion and corruption and bribery have no place in business and will not be tolerated internationally. So I thank you for this.

Fighting Corruption by Strengthening Internal Controls, Using Interactive Technology and the Internet

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We're going to present some of the activities we carry out under Project AAA in keeping with its mandate. First of all I'll present (internal control) self-assessment, a methodology that has taken on steam in recent years and which we have developed in this project and adapted for implementation in Latin America.

To introduce this and to get a better understanding of what we refer to, it's worth commenting that at the start of the 1990s a series of reports were issued starting with the COSO Report in the United States. This report set out the integrated framework of internal control. This means creating an attitude, a new approach to internal control. Traditionally that term referred to accounting controls. But facts have indicated that to have some degree of security in an organization about the level of control that exists there, the traditional controls were not sufficient. That is what led to the development of non-traditional, informal and even soft controls.

The COSO Report was the first and in some ways the forebear of the many others that followed, such as the CoCo Report in Canada and the King Report in South Africa. The GAO was the first supreme audit institution to update its own standards on internal control, adopting the very findings of COSO. In Latin America the COSO Report in particular was translated and other important developments took place. In countries such as Uruguay and Argentina, central banks required banks to conform to the COSO Report. Colombia has developed an internal control system that is even constitutionally mandated, and it also borrowed from COSO themes. There are other countries that are issuing their own reports. In fact, there is a regional-level commission that is working to elaborate on the COSO Report for application in Latin American countries.

That will serve as an introduction. When we speak of informal or soft controls, what do we mean? COSO developed what it calls the pyramid of control. As with any pyramid, its sustaining base is most important. In the base of the COSO pyramid we find the control environment. This environment, also called the work environment, is formed by factors such as ethics, leadership, organizational capabilities, skills and teamwork. It is the foundation of a good and healthy control for an organization. One step higher comes risk assessment, where we find the traditional risk assessment, planning, and the risk that an organization may not achieve its goals.

At the third level we find traditional control activities, everything to do with procedures, manuals, asset valuation. Here we find an interesting point the reports bring up. At the moment we evaluate an organization's internal control, its traditional internal control which was so heavily emphasized by everyone in the past, it doesn't seem so centrally placed as we might think. And at the top of the pyramid we will find monitoring, supervision, and the mention of aspects such as learning, benchmarking or comparison among different organizations or among different teams from the same organization. Finally, the organization and the top-down and bottom-up communications it must have continually.

Now taking this system as the starting point, a technique has been developed called control self-assessment. Control self-assessment today, as I said at the start, is a technique that has received great support because of the benefits it provides to organizations. All the accounting institutes recommend it as a fundamental tool. There are distinct ways to achieve control self-assessment. We know one version well—it began in Canada—and we work with it in Latin America. It uses a team of facilitators. Within an organization there will be groups of 12-20 persons who have a common goal and who work together towards its achievement. These persons will meet with two specialist facilitators who usually belong to the same organization but who could come in from the outside. These facilitators analyze the strengths and obstacles that impact in some way the capabilities of that organization. They examine certain key indicators which we will see later on, and generate numerical and graphic information. And, very important for us, they decide which actions must be taken by the organization to improve itself, to correct its problems.

This control self-assessment methodology like others is a self-assessment system using facilitators. Its *leitmotiv* is something we think is very important: the human factor, the human resource, the persons who work in the organization. The procedures, methodologies, manuals are all important and necessary ingredients. But it is the human factor that makes the difference. For this reason, in these workshops what is emphasized is the way people take part and interact inside their organization. This philosophy also emerges from COSO. As we all know—I think the experience of each of you will demonstrate this, both inside your own organization and, I dare say, inside your own country—the policies, rules and laws can specify concrete activities. In this example we see what the managers, the directors, the bosses of an organization want to happen. But it is the organization's culture that will determine in the end whether the rules will be followed or not. This is the philosophy that guides us in our work.

Now what is a control self-assessment workshop? How is it carried out and how does it develop? It is divided into two phases. In part one, together with the participants there is analysis and identification of obstacles and strengths. There are definitions of what is important for the future of the organization and for the work people are doing, and how these obstacles and strengths can affect the group, the team, the organization. In part two people vote about the key control indicators and later, based on the results of their anonymous voting, they analyze the most significant factors and debate over what can be done to improve the organization.

Now I'm going to explain briefly how the control self-evaluation workshop works. I'll speak more practically. One of the two facilitators is seated facing a notebook computer. There is a screen and an electronic voting system. Each person receives a wireless keypad. Everything that

happens in the workshop is projected on the screen; if someone says something the facilitator notes it down and projects it on the screen. The comments are not attributed to anyone in particular; no one is identified except the group as a whole. The group has the ability to disapprove or approve any change in the words projected on the screen.

These words transcribed on the screen will form part of the group's final report. And that report which issues from the workshop and is generated rapidly using software, will be provided to everyone on the day following the workshop with those statements from the participants.

How does voting take place? During the workshop people vote on approximately 40-50 statements, which are basic indicators and are relevant to the internal control framework (the pyramid). They deal with elements such as control itself, resources, recognition, information, etc. The people who use keypads see the statement on the screen and respond to it by pressing one of the number keys from '1' to '7.' A '7' indicates that they are completely in agreement with the statement, and a '1' means that they are in total disagreement. Now a '2' and '3' or a '5' and '6' are various degrees of disagreement or agreement respectively, while a '4' indicates a relatively neutral answer. The result of the group vote is projected automatically on the screen so that the group can see the collective result and the mean result of their votes. In the example here, we have a group of 15 that voted on the statement. Out of the 15 persons, 9 responded in varying degrees that there was not leadership and 3 responded in varying degrees that there was. The mean response in this case was 3.5.

If we remember that the range of votes lies between '1' and '7', then by definition anything below a '4' or a '4.5' lies in an area where the response was relatively low, and indicates an area in which problems may exist for that organization. After the voting is completed we move to a screen where we analyze what people said in commenting on the vote, and decide what should be included in the group report. Then one of the facilitators transcribes what people said, and again we have numerical and graphic presentations of the results. Here the transcription covers the examples people use to justify their low response; for example, why no leadership exists. The group is asked why it feels this way, and is asked to indicate its concerns about leader relations and how this affects their work. And they are also asked what the team or the organization can do to improve the situation, given the state of things.

A control self-evaluation workshop takes place during a normal workday. About 40-50 separate votes take place using the numerical responses. It is the work group that participates and gives its opinions, suggesting what changes could take place in the organization, identifying the weaknesses in the controls, identifying even areas where fraud could potentially occur, identifying all the circumstances that affect their work.

On the following day the report is produced. The only addition is one summary statement and the control radial. This is a summary graphic of all that happened in the workshop. Each one of the elements responding to the individual votes is represented there. Every item that scored above '4.5' is treated as an area in which the organization is doing fairly well, and every item below that is an area for concern. So the radial indicates in its red-colored zones the low votes, the problem areas, while the green-colored zones show areas in which the organization is doing well. As I said, each of the elements of the internal control system is represented. Votes are taken on issues related

to corruption. When we give them their copies of this presentation they look more carefully at the items where the score was low, such as compensation, or traditional controls, etc.

Each group that takes part in a workshop creates such a graphic. Those in charge of the organization can readily see the areas considered most important once they have had the chance to read the report. There is one more page added to the report, by definition an appendix containing the facilitators' comments. This is not an official statement of findings or a recommendation, but merely an indicator of areas that based on their experience, facilitators have identified that need special emphasis. What is more important in the report is what the teams say and not what the facilitators say.

Every participant group can make the graphic, and of course you could create a composite graphic from the various groups to get one for the organization as a whole. The system allows for comparisons within the same organization regarding relative status and well-being of groups, looking at each indicator. Comparisons can be made, benchmarks can be used, analyses can be made concerning why, within the same organization, some teams are doing well and achieving their goals while others are faced with problems. Here on the screen we see four teams from the same organization; clearly some are excelling, some are doing fine and in other cases we can see potential problems.

To finish, what are the benefits we find in this kind of technique? We see that it is a very efficient tool, because it leads to almost instantaneous reports. It is anonymous and honest, and perhaps that is the most important thing. The people who take part have the chance to express their opinion without any restrictions. No one who speaks is identified, so the opinion is the group opinion, and the voting is anonymous and undoubtedly this bestows greater validity on what people say. It yields immediate and measurable results, and is useful in following up the results and leading to an evolution of the organization over time and to comparative study of component groups.

It is oriented toward action. An important element of the discussions and the debates is precisely the need to identify what can be done. Undoubtedly the spirit among the participants improves because they feel they have participated in the reform process or in modifications that occur later in the organization, because they have given their opinions, their suggestions. They take ownership of the process because many of the changes and actions arose in part from their opinions and ideas.

Establishment of an action plan is practically a condition *sine qua non* for the workshops that the organization leaders commit to accomplish or set up some action plan to face the problems identified. If that does not happen, there would be no reason to have the workshop at all and the effort could be counterproductive. Let us consider what would happen if we call together a group of employees in any of our organizations, ask them to be honest and to give us their sincere opinions, identifying the problems; and then we don't do anything about it. Now that would be counterproductive.

Without a doubt a grasp of the problems, insofar as communication is improved, allows the organization's leaders to understand how the employees view the organization, how they view the

problems and the circumstances. We have worked these workshops into a Spanish-language version, which we have used in some Latin American countries. Some of these workshops have been conducted as pilots, and others with a fairly precise and identifiable goal. The technology and the related software allow us to carry on similar kinds of activity, not only control self-assessment. Right now we will be heading to another country in a month or so, to help with their self-assessment system and compare it with the system we are proposing. Now Eduardo Flores will talk to you about the Web site *Respondanet*, which is our site for the anti-corruption project. Thank you very much.

Eduardo Flores, USAID Project AAA, Casals & Associates

Good afternoon. As Pablo said, I will describe *Respondanet*, which is the Internet portal for our Project on Accountability and Anti-Corruption in the Americas. This is an initiative funded by USAID and managed by Casals & Associates. *Respondanet* is a bilingual portal with information both in English and Spanish.

As has already been mentioned in this conference, the growth in the number of Internet users in the emerging economies has been very significant in recent years, in particular in Latin America. As the graphic demonstrates, just in the last three years there has been an increase of almost 200 percent in the number of Internet users in the region. This growth rate is expected to increase during the next three years, so that by 2003 the number of Internet users in Latin America will grow from the present 18 million to almost 30 million.

This growth has been driven in great part by the implementation of the necessary infrastructure for providing these services. In the largest economies of the region—Brazil, Mexico, Argentina and Chile—the increase has been greater. But even in the smallest countries of Latin America, if you take into account their relative population, the increase has also been significant. This web of circumstances is what the AAA Project seeks to take advantage of, as it uses to the fullest the lines of communication offered by the Internet. Today *Respondanet* has the goal of placing in the hands of civil society, the international community, government officials and all those interested in obtaining information on the fight against corruption, updated and complete information on this subject, and also information about financial management, auditing and all initiatives that lead to increased transparency in government.

Thanks to these efforts *Respondanet* is listed today among the 12 percent most visited Web sites on the entire Internet, not just the Web sites that deal with the subject of corruption. It is receiving hits from more than 60 countries, and it's interesting to know that these are not just in Latin America. In fact half of the hits come from other regions of the world, in particular Eastern Europe, Asia and also Africa. Another interesting piece of information is that, since January 2000 to now more than 60,000 documents have been downloaded from the Web site. These include documents of model standards or legislation that are now available not only in the countries where they were created but also in other regions.

Now I will describe in greater detail the information that you can find in *Respondanet*. On the home page we try to put the most up-to-date information on the subject of corruption. Right now,

in fact, we have a summary in Spanish of the Opacity Index that was presented a few days ago in this conference. It is accompanied by an explanation in simpler terms of how the index works. Another section that is quite frequently visited is the news section that is updated practically every day. It is divided by country and appears at the top of the Web page. We search all the articles in the region's press, make a summary and present it there. This kind of news can also be sent by e-mail to subscribers, and those who would like to receive them will receive a weekly mailing in Spanish or English. The articles in Spanish come chiefly from Latin American newspapers, so the Spanish-language page has a more regional focus, while the English-language section has a more global reach and shows articles from all over the world.

We have a number of sub-pages in *Respondanet*, and now I will mention some of them. The first is the section on best practices, where we try to report on initiatives that have proven successful in fighting corruption, improving government transparency, or applying new financial management systems. Another section often visited by browsers is the one on national anti-corruption plans. Currently we show the documents produced by Mexico, Bolivia, Paraguay, Nicaragua, Ecuador, Guatemala and Argentina. These documents include the national plans or strategies for combating the problem, and the documents that authorize the creation of local anti-corruption offices.

There are three other documents you will be familiar with. One is the compendium of activities in each country for combating corruption. This document monitors all the activities carried out in Latin America in compliance with the Interamerican Convention against Corruption sponsored by the OAS in 1996. If you analyze this document or see it on our Web site, you can see all that has been done in each country under three separate categories: legislation, regulations and international treaties adopted to curb corruption; enforcement mechanisms; and civil society efforts to support the fight against corruption.

Another subsection of *Respondanet* deals with an initiative called Anti-Corruption Without Borders, and this will be covered in a moment. Another section contains our bulletins. Right now the AAA Project publishes a bulletin in Spanish and English language versions, with information about anti-corruption, financial management and auditing. It is also in an electronic bulletin format and is distributed in 'pdf' form over the Internet. Its distribution is free, as is true of all the other programs sponsored by the AAA Project. All those interested in accessing the bulletins can subscribe through our Web site. The Spanish-language version has a Latin American focus, while the English-language version has articles with a more global focus, covering Africa, Asia, Eastern and Western Europe.

Regarding these documents, I am glad to tell you that any information that you in your own institutions would like to distribute through our Web site, we will be glad to accept any collaboration on your part and consider it for publication in our bulletin.

Thanks to all these efforts our Web site has experienced a substantial increase in the number of visitors, and this increase can be noticed from month to month. At the beginning of 2000 there were approximately 57,000 monthly hits. At the end of the year it was higher than 100,000.

There is one benefit of our work that has surprised us, thanks to the implementation of this Web site and the use of other information technologies, which has been a key focus of the AAA Project. That is the timely and immediate distribution of information on the struggle against corruption. Another great advantage of this Web site is that it consolidates the information in a single source. If you are interested in finding information about anti-corruption in a particular country or under a specific subject heading, you have easy access with a single source and without having to consult several Internet sites. Having materials in both English and Spanish makes it possible for the lessons learned and the initiatives undertaken in Latin America to be available to persons in other parts of the world.

As I said before, the interest is not just at the regional level but also throughout the world. What are people in other places doing to combat corruption? This is especially true in our program, Anti-Corruption Without Borders. It is clear that, because of the frequency of hits coming from Eastern Europe and Asia, other countries are interested in seeing what this region is doing, to learn what Latin America has been learning and to apply similar models in their own countries. That is why the present number of Internet users in those economies and the availability of e-mail have facilitated tremendously the access to and distribution of information in this way.

To conclude, I would like to comment that we are extremely interested in contributing to these efforts. We invite all those taking part in this conference to send us any kind of material that you want distributed on our Web site. Thank you very much.

Sylvia Rodríguez, USAID Project AAA, Casals & Associates

Good afternoon. I would like to begin by saying I'll be brief, and to welcome all the participants who join us each year in the different conferences, both here in Miami and in Washington. I'd like to share with you some words about another service offered by the AAA Project to all of you. We call it Anti-Corruption Without Borders.

This is a virtual network that links civil society organizations (CSO) that are committed to the struggle against corruption, from Canada to Argentina. We call it "virtual" because the principal tool we use is the Internet and a listserve, which means a distribution list for more than 150 civil organizations using e-mail. How does listserve function? Let's say we have a NGO in Bolivia that needs information about how to implement an anti-corruption plan. All the NGO has to do is send an e-mail to our listserve and right away it will be answered by another NGO with experience in that area. Or, as another example, if there has been a law passed in Paraguay on the subject of anti-corruption, an NGO only has to send an e-mail referring to that information and it will be sent to everyone in the network.

We could say that Anti-Corruption Without Borders is a product of our technological advances and developments of recent years. Electronic communication is the new sphere of action in this information society. But at the same time Anti-Corruption Without Borders is a product of the growing interest in civil society in taking part in efforts such as transparency in government. We could mention the importance of the networks of virtual forums also. Someone once pointed out that in this age of interdependency it is impossible to not depend on networks. It was also said that,

just like the famous intelligence quotient (IQ), now there is a network quotient that would measure the capacity we have to connect ourselves with other persons or organizations.

In this context of networks, Anti-Corruption Without Borders unites civil society organizations and allows them to share reports, experiences, events, activities and related information on anti-corruption themes. Thanks to the Internet our experience has been very enriching. We have organizations that have emerged from their isolation and anonymity to join others with greater experience from all over the hemisphere. We have members such as the organization located in the remote Amazonian city of Leticia, Colombia; the experienced organization Citizen Power from Argentina; and the well-known Canadian foundation in the North, FOCAL.

For all of these organizations Anti-Corruption Without Borders opens a window to the world, especially in the form of information dissemination about events in which they can take part—events organized by international institutions such as the Organization of the American States and the Trust for the Americas. Our effectiveness is demonstrated to the point that organizations like the Office of Follow-up for the Americas Summit (held in Quebec City in April 2001) or the World Bank or the IBD, even though they have their own networks, use our directory of members to reach a larger audience.

In the portal *Respondanet* you will find more detailed information about these services. You will also find commentaries, opinions, annual reports and other Internet resources for civil organizations. In *Respondanet* there are also basic courses about the use of the Internet for those civil organizations that don't have the infrastructure or sufficient resources to create and maintain their own Web page. These organizations can take their information to our portal *Respondanet*.

If there is a name or a title that we could use to describe the beginning of this century, I think it would say, Too Much Information and Too Little Time. Anti-Corruption Without Borders is a clear response to this problem. It has allowed organizations to break with the constraints of time and space, and unite many members of civil organizations with a shared interest. Its effectiveness is so rapid that news gets to the entire network with just an e-mail with information. Also in recent months there has been a heightened mutual support activity, in which some organizations respond to the questions or problems of other NGOs. This has also strengthened the bonds of collaboration and interaction among the members. We can say that the success in communication that exists in Anti-Corruption Without Borders is not due solely to the number of e-mails that are sent or the number of visits we receive daily, but to the quality of the messages and the speed of their delivery.

Finally, let me mention that recognition for the work carried out by Anti-Corruption Without Borders has come from the highest levels. I will leave you with one example—a quote from the former Secretary of State of the United States, Madeleine Albright. Thank you very much.

New Technologies in Government Debt Management

Enrique Cosio-Pascal, United Nations Council on Trade and Development

In the speech that follows I will cover the major points of my paper, those that may be of most interest to you. Above all, I want to give a historical perspective on the evolution of the idea of debt management. It is not disconnected nor is it independent of the evolution of integrated financial management systems. When we started to develop this perspective on public debt, we had no idea that it would in fact form part of the heart of an integrated financial management system, because in countries like those in this region the public debt forms a very important part of the budgeted expenses, and so control is also necessary.

So now I will offer you a short historical perspective, beginning when I was outside my country for the first time and dealing with debt management. That was at the beginning of the 1980s, when the payment defaults began in my country, Mexico, in 1982. That was the event that triggered the explosion of the debt crisis, which was so difficult to solve and led to a very important loss of economic development for all the countries of the world and especially in Latin America.

When I began working on this, my first mission was to assist the countries that were making presentations to the Club of Paris, presenting their position to the creditors, making economic memos with various perspectives, making a set of projections about debt servicing, etc. The first problem we had was that these countries had no idea of anything—the entities to which they had obligations, in which currency, when the payments were due. And they did not know who had these obligations in their countries, or whether the obligations were direct loans or loan guarantees. We're talking really of tremendous disorder, to such an extent that even in my own country—and they're still doing this right now—the Central Bank wrote a letter to all the creditors asking them how much was owed them, because we didn't know! What is important about this is that it still goes on today, to the point that there is a system of reconciling our figures with the creditors', and an ongoing control to make sure that our tally corresponds to theirs.

The first idea we had was to create an information system that could help countries address this problem, in which we could record the loans denominated in each currency, those owed to each creditor, those for which each debtor was responsible, those that are paid from the central budget, those that the institutions have to pay out of their own budgets, etc.

When we started out we thought we could create a simple system. It didn't turn out that way. It is very complicated because we face many creditors, each with its own methods, its own techniques, its own way to count (for example) non-banking days for purposes of computing

interest. The interest may be simple or compounded, and when it is simple it may be divided by a year of 360 or 365 days, and some creditors count 366 days in leap years and others don't, and so on. You have to keep all these details in mind in the system, to control the payments made to the creditors, to claim what is your own, to be suspicious.

So the system turned out to be complicated and it took some time to develop. And, as our Brazilian colleague pointed out so well this morning, it is also a dynamic system. This is true thanks to the unbounded imaginations of the financial engineers, and all the restructuring that they do. By the way, when I say "financial engineers" I'm not just thinking of the markets but also of the multilateral agencies such as the IBD and the World Bank, all of which are changing the way in which they make loans, the way in which they get repaid, the way they calculate interest, the options we have with relation to foreign currencies, etc. So this is a system that is alive at all times and that evolves and has to keep changing.

That was the first lesson we learned. A system of this kind is not a simple one; it is complicated and you have to provide constant upkeep. There's no point when we can say it's all finished. We have to go on assimilating all the new techniques and answer the needs in the international and domestic capital markets, as well as incorporate progress in information technology. And then there are all those requirements in the reports that we need for local and international consumption.

The second lesson we learned, and I think the most important, is that a computer system is not the solution. If we install a computer system, no matter how good it is—if we don't carry out at the same time a complete managerial reform, to allow all the information flows to move where they have to move, at the time they have to move, and reaching their destination in a transformed way at the time they have to and with the correct content, our effort serves for nothing. The same can be said about integrated systems. At that point we began to create a rationale for an office of debt management. We also realized we had to create a set of assumptions for assuring a reasonable safety margin that would allow us to find out how the system was going to function.

Here I will explain rapidly what has already been said in this conference. Executive management is important; I'm talking about a management executive council that is the same as the council of ministers or a subgroup, in which a firm commitment is made on behalf of the nation to implement a management system that is current. This has to be done at the highest level, and it has to be a radical policy commitment for the nation. If we don't have this, it will be very difficult to be successful in our activities, to create a debt system that will form part of the integrated system. If we don't have a firm stance on this it won't happen.

We need a judicial framework with regulations that are put into practice. We need a debt strategy that incorporates a sound macroeconomic strategy as well as benefits from the commitment of people and resources. We have to have qualified personnel who are well paid, and we also have to give them resources so that they can work effectively. If we don't, it won't work. These three functions are basic ones, and they have to be decided at a very high level and with a very firm commitment to accomplish it all.

This management function is something we'll talk more about later. We'll look at the operations management that may take place in different parts of the government, in quasi-public enterprises, in national development banks or even in the private sector whenever there are loans guaranteed by the State. Now it is important to have a permanent secretariat for this executive council, this council of ministers that exercises control and oversight for what has been decided to be put into effect. And then, with regard to the outcomes, it will transmit these in a synthesized form with propositions that may lead later to a change in strategy. This allows for ongoing decision-making by a permanent body and also for changes in directives if necessary.

Let us see what makes up executive management. Executive debt management can be considered as establishing the rules of the game for top government management. It provides overall direction and organization in three areas: policy, regulation and resources. Executive management has macroeconomic as well as macromanagerial dimensions.

Let's look at the legal framework of regulation and how it's put into practice. This is most important. You have to set some rules as simple as this one, at a time when no one thinks they're needed, just before the debt crisis hits. It has to be said that the only one responsible to sign for foreign loans is the minister of finance. We saw a whole lot of loans that originated, for example, from a visit the minister of health made to Europe when he returned with a bunch of loans to build hospitals that no one knew anything about. Or the minister of agriculture traveled and returned home with loans to build dams or artificial farmland, and again no one had any idea of anything until the first repayment of debt was due. These are part of the series of things that we have to keep track of as regulators, and besides giving us regulations it provides us a framework for a law of finance that has to be approved each year.

The policy function, to create a strategy of indebtedness, is related to macroeconomic strategy. Here we will decide who is authorized to borrow outside the country, as well as the terms and time period, and what the priorities are for these loans.

The resource function tells us how to keep our personnel, how to deploy them, and what material resources we will provide for them. This is especially important in managing the public debt, because the manager of public debt—if we look in the mirror—is just like a banker; I mean this is someone who can issue debt, who understands how international financial markets run, who understands multilateral loans, etc. And if we don't pay that person what he/she deserves, the private sector will gobble him/her up, and we'll have to go back and train someone as a replacement.

The operational functions once existed at a macromanagement level and were dispersed throughout the organization as well. But this can lead to a synthesis of information at the macro and overall level that leads to more informed decision-making when the time comes to pay the creditors. Information can be gathered at both levels and provided to the executives who have to make the important decisions.

We have an absolutely basic function here: recording of information. This is the only function that we think should be centralized and not distributed. Why? Because, if we don't do that, under conditions of our everyday work we're going to have more than one debt figure in the country, and

that would be a problem. It has to be centralized. We can see other centralized functions: analysis, that leads to decision making; operations, that helps with negotiating; resource and service utilization; and a control and oversight function that performs a local-level control for all these functions, putting into practice the decisions that are made at the management level.

That is how the organization is composed. Once all the functions are defined, which is the hardest part—I mean, making this kind of decision and doing it in relation to the legal framework—we have a structure we need to carry out everything related to debt management.

First of all there is the organization of the office. The functions it is supposed to carry out need to be well identified, and so do the duties of the persons who work there. There should also be a management information system. Today it is absolutely unthinkable to conceive of a country with a public debt management function that doesn't also have an integrated management system. This morning we saw all the documents that are involved in this. It's impossible to have 14 million documents ready at hand, it's simply impossible. And when we deal with the public debt it is absolutely impossible to have dynamic management unless we have an active information system.

Getting back to the organization of the office, and I think this is valid not just for debt offices but for offices in general, there has to be a manual of functions with detailed descriptions of the responsibilities and functions in the office. After that there should be a manual of procedures with detailed descriptions of the flows of information entering and leaving the office, with descriptions of how detailed that information should be, how often it should arrive, where it should come from, who provides it, and where it should be sent. It should also detail, once it has passed through the system, how it should be processed so that it heads on to other offices in a modified state.

As part of this information effort we have opened wide our wings to the point that we provide training to officials in debt management offices. They for their part publish a statistical bulletin that leads to greater transparency in public debt management. The statistical bulletin is meant to be used by politicians, managers and the public in general, as well as the universities. Here is the interesting thing: when we started to work in this area, governments asked us explicitly to put public debt information on a PC that would not be connected to any other system, and it would be locked with a set of three keys in a room with access by just select individuals.

That involved a real evolution of mentality: to make this public debt information available. And it has also been a hard struggle to convince governments that along with the public debt there has to be a reckoning of the military debt. Often military debt was something that was forbidden to discuss, and it was extremely difficult to convince governments that it was insane for the ministry of defense to handle the debt. But military debt is just like any other financial issue—it follows the same laws as other kinds of debt, and it has to be managed by the same ministry of the treasury and not by the generals.

A few days ago someone presented a system here. The question people raised was very interesting: "How can you guarantee that the system won't collapse?" The only way to guarantee that is not with the system itself but with the other activities I mentioned. If you have a work description for each of the officials in the office, you get the institutional memory that serves you well when your personnel turn over, and others move up and they understand exactly what they

have to do. When this happens we come back home and give the training, and people know what they have to do because there's that manual of functions, that manual of procedures, the organizational chart, and the description of duties for each officer.

Let's talk about information management. As I said before, it is impossible today to manage effectively the national debt without a computerized information system. The trend today is to contract for some software available from the main suppliers of technical assistance in this area. Why is this? Because it is very hard for most countries to develop their own system. It's not because the technical capacity doesn't exist, because it does, especially in Latin America.

What they don't have is the time for users to help create a comprehensive plan for the information system that will respond to all the needs that will eventually arise. We see this all the time. Users have specific problems right now and they tell the information manager, "Solve this for me, please." And tomorrow there will be some other specific problem and they'll ask the information manager to solve it, too. And the manager will solve it the best way he/she can. But then the user continues, "Okay! You did this, and it looks like it's connected to something over there. Why don't you connect them?" So the poor information manager will do whatever is necessary to connect them, and in the end there will be a very inelastic system, a piece of patchwork that in the end will not cover all those functions we needed from the beginning. This is something we see every day. Beyond this, our information manager is overworked and didn't have the time to document the new program because it had to be done yesterday. And suppose this manager leaves, and a new one comes in who doesn't understand anything that the other one set up. It could just as easily be Advanced Chinese.

Now we have the office, and we know the features that the debt management system should have. The office should have a general vision of the problem, have the documentation it needs and maintain a centralized team to handle the problems that may arise.

To have a well-informed workplace, it is also extremely important for the top levels of government to give its clear support for the information needs of the debt management office. The obligations of the national debt office are clearly the ones assigned to it by law, but it is important for us to remember that it is not just markets, technology and the needs of our office that change. Nations also evolve in their lives as borrowers, and it is a function of the market in which we borrow that we have to organize our national debt office. Obviously Sweden does not have the same organizational structure as a country like, for example, Togo. Why is that? Because they don't have the same access to markets. So the structure that we set up depends a lot on the markets in which we hunt for debt financing.

What we see here are countries that have access to the World Bank counter, for example: development aid insofar as this is the international development agency. There are other low-income countries, and medium-income countries that will have a mix of market loans as well as loans from multilateral institutions, and upper-income countries that depend solely on capital markets for their debt financing.

An important decision that has to be made is whether to extend coverage for debt servicing activity. This is most important, especially for developing countries, countries in transition. The

foreign debt and also foreign donations are to be handled by the same office. Why is this? Because often the donations are tied to projects that were debt financed. And when we report to creditors or donors on the way we use the funds, these two things are intimately related.

Obviously we have to keep an eye on all public debt, guaranteed debt, debt of public enterprises, short-term debt, and non-guaranteed private debt (something that is becoming more important all the time, especially after the “tequila crisis” in Mexico in 1994 and then the Asian crisis). Re-assigned debt means the debt that we borrow from outside and then lend internally; and that means management of a twin portfolio because in the eyes of the outside world we are debtors, but in the eyes of our internal users we are creditors. Follow-up of projects is important, too, as is of course domestic debt.

Where do we locate the office? The ministry of treasury, the central bank, an autonomous debt office or some other place? We should say that the central bank has been the place, especially in the last 20 years, in which public debt management has usually taken place, but that happened by default for lack of interest from the ministry. If we have all that turnover of personnel and the salary structure is not strong and the career track is not attractive there, we won't have the qualified people to handle the debt. That is why the central banks were the only institutions that could provide the needed stability among their personnel to handle the debt. That is why debt management ended up by default in the central banks.

At the moment there is also a trend to make the central banks independent within government, following somewhat the model we see in the developed countries. There is also the sound idea that management of the public debt is not necessarily something this institution is supposed to do by its nature. That role is returning to the ministries of treasury, and there is a strong reason for that. In the ministry the integrated financial systems are being developed, and of course public debt is a very important part of any integrated system. So it is absolutely important today that public debt management be carried out in the ministry of finance.

Now that I have said that, we have to keep in mind the comparative advantage the central bank sometimes enjoys when it comes to databases. If that is the way it is, there's no need to change. The central bank can go on handling the database, but the ministry should have the ability to use the database with its own rights and prerogatives, using informational tools to exploit the database according to its needs. This is the way it is working in some countries.

There are examples of autonomous debt offices, but mostly in the developed countries, such as Sweden, Ireland, Belgium, New Zealand and Australia. They will tell you that it is more than anything else an escape device. The only real reason to have an autonomous debt office is because they can offer higher salaries to their personnel if they get it out of the governmental sphere. They can offer a different set of incentives based on benchmarks, and offer commissions, too. In other words, this is done only to keep personnel on the job.

There is something else involved. When a country has a debt agency like the ones I have just described, we're talking generally of countries that borrow inside their own market and have around 70 percent or 80 percent of their debt in their national currency. This would not happen in our countries where the domestic market is very expensive. It is cheaper to borrow abroad because

of the high interest rates in our own countries, not to mention that often our capital markets are truly newcomers, and so it is not very easy to find all the money we need in our domestic markets.

There are some other cases such as in the former Soviet Union. For historical reasons it was the Bank of Foreign Trade that was in charge of all foreign debt. In the case of Russia, in fact, it was not just a question of Russia's own debt but also the debt of third countries with Russia. There is a process in evolution there that will take some time before debt management is transferred from the Veneshkombank to the various finance ministries. But it has to happen.

Sometimes you may think that it is useful to contract with private sector banking to manage our debt. This might work for specific public issues of debt, but not for the overall management because we're not going to have the necessary control over that. Besides, it's possible that a commercial bank doesn't have the necessary understanding to manage loans that have the features of World Bank currency. And then we have the decentralized organizations, in which we need a strong organization and good coordination, so that the three functions of executive policy will be very well implemented there. In this case we have a number of actors that function in independence from each other.

There are many organizational models to choose from. We think immediately of a geographic division of labor. And we have seen an office organized in that way, one dealing with loans from Japan and the United States and another dealing with loans from France and Italy, etc. We recommend instead that the office be organized around specific tasks, where one person is dealing with disbursements, another with payments, etc. We think that the best way to function is organize it in terms of the creditor, since each creditor has its own rules, its own way to act, and this would be the most efficient way.

Here are examples of the models, each with its organizational structure, one for regions of the world, one by creditors, two others by task. That could be the way a large debt office is organized, with all possible debt being managed by the same organization. There is also an example of an independent agency—the Swedish Debt Office. We conclude by saying this. The most important thing for our countries is not to have an agency like the ones in the developed countries, where you're going to separate fiscal and monetary policy from the agency that will collect the money, and we're not going to have the right integration if we're also using an integrated financial management system.

We recommend organizing the debt office in accordance with the kind of financing to which it has access. An efficient model for the office structure would integrate the entire supervisory process in a vertical way. That is very important. And computerized information is indispensable for those managing the debt, since you have to proceed to a careful choice when you set it up, whether to create your own or adapt one that is already available.

These are some of the problems that an autonomous debt office will face. But no matter what organizational form is selected, the important point is to have an excellent legal and regulatory framework. And it is highly recommended today to set up all the functions of an effective debt management at the executive and operating levels.

Let me make this comment. Not only will improvement in administration be the reason for a more effective and accurate management. Any improvement at all in control will also lower the possibility of fraud. Now someone mentioned Nigeria. I don't know if you have received a letter that came specifically from Nigeria, but I did and some of my colleagues in debt management did, too. The letter said more or less, "We have \$90 million authorized for payment of debt service. The creditor has not yet been chosen but the payment has been approved. If you could take on the role of creditor we will give you 15 percent of the \$90 million." Sounds pretty good, doesn't it? But it's a big joke, because who can imagine that we will authorize a payment when we haven't identified the creditor? This leads to a giant snare because no one checks it out, but they send some good faith money to lock in the deal and they never see that money again.

All of this helps for control. I will tell you about the offenses all day but I won't show you the offenders. Here's another story about a debt manager who invented loans and paid himself. He had an account outside the country, and when the loan was issued it went to his account. Now if you don't have good control over the original contracts, and see the due date of the payment, or even do what the Banco de México did when it began in the emergency and continued later as a custom, sending messages to creditors to say, "If you check the accounts you'll see that we owe you this much. Could you please tell us if you are in agreement with our calculation?" If we don't have any of this, we cannot have an effective control of our debt.

There are a series of straitjackets that we impose on the systems, so that with time there is less possibility of fraud from one or the other side. In addition, if we pay on time and keep a close watch on our creditors we'll save a lot of money, because it should be clear that often fraud is not necessarily national in origin. My experience has told me that we have some very honorable credit institutions that make two requests for payment of the same due amount. Of course creditors are human, too, and they can make mistakes, but as human beings they might like to double dip also. That's why you have to keep an eye on them.

We should have a complete control system that is not just internal to the organization but also visible on the outside. The system should allow exact calculations of how much each creditor will be asking, so it can control them as well. That's important to have. In a country like Argentina, after 18 months of setting up these kinds of decisions and activities, we have succeeded in saving \$25 million in debt service. It doesn't happen immediately. It's something we have to do and follow up in a systematic way so that we can get improvement as we go along.

JOSÉ ANTONIO BORJAS MASSIS (Honduras): In Honduras we are installing an integrated financial management system. But we have a problem because there's one already installed there, SIGADE, that was installed by UNCTAD for debt management. The problem is that we lack strong programs that would help to integrate the two systems. And given the fact that UNCTAD's program is being handled by another agency, not the national Treasury, we have practically speaking two treasuries, one for domestic funds and the other for outside funds. What is your experience in this, so that we can find a way to interface or interrelate UNCTAD's program SIGADE with our own SIAFI?

ENRIQUE COSIO-PASCAL (Mexico): There really isn't any problem. You don't need the source programs to get your interface, because the source programs are being updated at the central level, and that will lead to a big economy of scale for you. What we will probably do is give a training program to help you design the interface, which is what we did in Argentina, Guatemala and Panama and are doing right now in Bolivia, Ecuador and some other countries. In Argentina the interface is being implemented completely from the payment point of view: all the payments go from SIGADE to the budget office, and all resources, too. If there are disbursements for loans that reach the sources of Treasury, then SIGADE also tells Treasury that there are resources available. It's more a problem of national organization than of computer information systems, but we're always there to help you with any problem. As I say, all the interfaces provide training and you can take it without any problem. You have all the system architecture, and I recommend that you not touch the source programs because if you do, the next time there's an updating it could erase everything you did. What you have to do is make the collateral applications.

JOSÉ ANTONIO BORJAS MASSIS (Honduras): Just to be clear: so you did not enter the source programs in Argentina?

ENRIQUE COSIO-PASCAL (Mexico): No.

ANGEL SANTANA (Dominican Republic): I am a member of the Chamber of Accounts. I listened to your address attentively. I have worked in auditing for 21 years, 19 of them in this governmental audit institution. And there's something that puzzles me all the time. All these procedures you mention are part of the preliminaries of any loan from donor institutions, and we have carried them out. Where does the case arise—something you didn't mention and I want to ask about—where does the donated money go for program follow-up? I have had two very humorous experiences. One was with two donor institutions, when the technician left after three months. There was \$300,000 in aid that I reduced because it included the technical linkages. He said not to do that because that work was already done in the national platform; I couldn't cut it out. So I took him to the work area and he couldn't find it. I left him, we went through the site that had to do with Infratur, the tourism entity, and he didn't know where it was. The other case was a project in Santo Domingo that was supposed to be completed in two years, but now ten years have gone by and it isn't finished yet. So we have to ask when will the work be finished? There is no real and effective follow-up, nor is there any will to complete the project.

ENRIQUE COSIO-PASCAL (Mexico): We haven't gotten to the utilization of these resources. That is the institution's responsibility. I can talk about this with you afterwards. Let me show you how this might become really problematic. I started work in Uganda about the time President Obote took over. And as I worked for someone from the International Monetary Fund, we were trying to find out where some of the disbursements had gone. We contracted someone locally to do some investigating. And then one morning they find him shot dead in the street. So you can see how rough it can get sometimes. It's not so easy, but it's going to be one of your next steps: to try to do project follow-up.

GRAHAM JOSCELYNE (United States): I was glad to hear the examples you presented. I can talk with authority about the story of the Nigerian letter. As some of you perhaps know, it was said that the payment had been approved by the Auditor General of the World Bank no less. All of

us who have been named in these letters are planning to form an association of auditors general of the World Bank! There should be 30 or 40 names all told. What astounds me is not the author's creativity in naming so many persons to the position that I hold. It is that so many recipients of the letter fall into the trap. I get a telephone call every two or three weeks from people in search of the "fee" that they think is theirs.

The E-Budget Factor

Jorge Aponte, Former Director of Management and Budget of Puerto Rico

Good morning to everyone. I'm in an unusual situation because I prepared three addresses for you. I wrote one before I came here on Sunday. Then after two days here I had to put it through major surgery, because of the way the other speakers developed their topics, with such preparation and such depth. And lastly yesterday afternoon I added some final touches. Now I don't know which of them you are going to hear.

I am grateful to you for your presence this morning. I am grateful for the opportunity given me by Florida International University and the Consortium to deliver 450 contact hours to you today. That is the time for you and for me. If I had to dedicate one hour of my time and one hour of yours to speak to you individually on this subject, I would need approximately 56 days, about 11 work weeks of 40 hours each, or about three months.

Compare that with the opportunity governments have to make their own information available, accessible and usable on the Internet. Each government has a chance to provide 61,000 hours of service a year, assuming that the government shuts down its Internet servers on Friday afternoon and turns them on again on Monday morning, which was an experience I once had. Every week a government that is committed to 24 by 7—24 hour workdays or Web days 7 days a week—has the opportunity to quadruple the access that it has to its citizens, the access that its citizens and investors have with government. It's a unique opportunity to increase government's productivity and increase the nation's competitiveness.

We propose a hypothesis we have about the role of the Web and the Internet in government, which is equal to anything you have heard and read in relation to a business. It's so simple. E government or online government spurs a country's competitiveness when it opens up all its information. Government provides this to people, and people follow with the hope that government will take a leadership role in this. Now people are patient and tolerant. The average citizen prefers to wait. The most needy person in the entire economic sphere, the one with the access and the ability to re-invent its own processes, is the small and mid-range business person. But this same person does not have the resources to access the information in the traditional way that the multinational enterprise or the large national corporation has to deploy its own research groups to search out, collect and analyze relevant information about economic and regional trends that impact or might impact their operations.

That is why, in order for a nation to be competitive, its government must take the lead in making available information of all kinds so that the nation can work to improve its condition.

When I talk of information I mean all publicly available information, all that is provided free of charge. I know that some governments—and I’ve had some experience in this—think that the most important information should be sold or royalties should be collected to help finance the systems that produce the information. Or they think that it will help them obtain the additional resources that their office of management and budget has decided not to approve. Now to assure that government is open in a transparent way and produces all the information without restriction, you need strong-willed leadership.

I want to speak about an experience I had in my eight years of public service. I’ll be brief because the details are in the paper being distributed to all of you. Imagine that you see a large monitor or screen. Try to visualize the information and transactions to which you have access as public servants, which your government could share over the Internet. If you were not in the government, but rather were concerned citizens, investors, voters or officials of a multinational organization such as IBD or the International Monetary Fund, what information would you like to have access to without having to pass through an information filter? Think about what you would do. Think about what you would have.

That is the mission of your immediate future. If you thought that this conference would not give you an opportunity or obligation to carry out a task when you returned home, well, here is the homework assignment. You have the responsibility and the opportunity to take a step for transparency and foster competitiveness in your countries, in your workplace, in your function, in your subject area, to work for your country to offer the greatest amount of information on a continuously updated basis. This would be for the benefit of public servants who don’t work in your own ministry; for the benefit of your legislative assembly or parliament; for the benefit of the media that looks for a lot of information in its investigative work and can prepare better for its interviewing process; for the benefit of citizens, electors, students who need information about government, the economy and public affairs as part of their intellectual growth; for the benefit of better borrowing conditions in matters of foreign debt; and for the benefit of a stronger economic growth through foreign investment—all this insofar as information is being provided to all these people and access is assured to them.

In 1996 I had completed three years in my office. I had come into government with the idea of putting in some time and then moving on. I’m like the thirteenth apostle, the other one you see in the picture of the Last Supper. The priest counts them 1, 2, 3 until he gets to 13 and then he says to the sacristan, “Hey there are 13 persons with Jesus Christ instead of 12.” And the other replies, “Father, read the footnote.” The footnote reads, “I’m not an apostle, I came for dinner and when dinner is over I’m gone.” That is the way I entered the government of Puerto Rico, as apostle number 13, and since the meal was ending I was about to leave. And I began to ask myself why a government as large as Puerto Rico’s with a total budget of \$15 billion acted like a corner store with its information.

Once we began working on this we had two options. One was to contract with outside consultants or systems analysts to sell us something off the shelf so we could solve our problem and move on. But we decided to take the more difficult and virtuous path. We decided that if we were going to improve government, part of our effort implied developing native talent in accordance with the Constitution of Puerto Rico, that is, using the merit principle to recruit public

servants. This principle is based on the idea that you recruit the best talent available. So it was unthinkable, once we considered that the best talent was already in government service, and that a not-so-good level of talent was in the private sector, that we could encounter better systems in the private sector than in government.

And so we began a long process requiring hard work. To have an idea what I'm talking about, this process used to be manual, and in it each public entity presented its own draft of about 240 pages once a year. At some point during the year this will turn into 24,000 sheets of paper that less than 100 persons in the Office of Management and Budget had to analyze, tabulate and convert into a draft annual budget. Imagine them trying to search for some words or phrases in a handwritten or typewritten document that you could hardly read. That's the way the process used to work.

Each agency typed the budget request or prepared it in its word processor. And after the data were entered the report was printed. And after it was printed they might send it through the mail, on a diskette or by the Web if the Web existed, or even courier it over to us. And while that courier was delivering the document to our offices in Old San Juan, the driver would be contaminating that great museum of urban history by cruising slowly around the old city for lack of a place to park.

Once our office received the document, it was analyzed and edited for inclusion in our draft budget and entered in the computer. Since each agency had its own personally preferred computer application, there was no uniformity. After it was put on the computer it was also put on a diskette. The diskette was sent to the Publications Office which took the document and turned it into a published hard copy by formatting it, smoothing out its rough edges and printing a proof to send to an outside printer that made 250 copies of the draft budget. You can imagine. The legislators got 100 copies, though they only paid attention to the areas they wanted to know about. Other copies went to other government offices. Fifty of them went to university libraries and other key places. Possibly three to five copies were sold to the public for \$25 each, and that price was not enough to cover the unit cost of the document.

Then came the legislative process where changes were effected. Once the changes were made public, each governmental unit that was affected by any change had to be informed so that it could type up a form required by the Department of the Treasury. This was a special form printed specifically by the General Services Administration for which each unit that needed one had to pay. It was typed on carbon paper and printed and sent out once again by couriers to the Office of Management and Budget. Approximately 1,200 governmental programs, two pages per program, 100 accounts on the average per page per program, and some 240,000 accounting entries had to be made. Our office approved the finished product and submitted it to the accounting office of the Department of the Treasury, both in electronic form and also in hard copy to allow Treasury to process the transaction.

That process took place each year after the budget was approved, on or about June 30 when our fiscal year ends. And it took two and a half months of the incoming fiscal year to complete. So supposing that the governor signed the budget on or before June 30, the government of Puerto Rico was practically at a standstill for the first three months of the fiscal year. No payments could

be processed except for wages and salaries. And maybe the governor delayed in signing the budget—which happened in 1990, I think—until August 23, nearly two months into the fiscal year.

So with this scenario fresh in our minds we started working to achieve what we understood needed to be achieved. To be brief, we made the conversion, we provided a new information coupling system that shifts information from one year to the next, in which only the areas that have been changed need to be separately reported, and in which all the tables are produced (in many cases in PDF format) for publication on the Internet. We produced a document in electronic form, with the idea of publishing it primarily on the Internet. If anyone wanted a hard copy it would have to be produced in a separate process and only after we failed to convince that person that this was a thing of the past.

But it wasn't easy to do. The first time we tried it was a complete failure. From the first day we started in programming work until the day we finished, we had produced over six months 25 distinct versions of the budget application. You can imagine the great time people had who wanted to make our work and our agency look bad. But we decided that the problem was not with our objective but with the focus, and we learned the great lesson of our life in the information society. The lesson is that we have to train our people all the time. We set out on an intensive training program for our technical personnel and for the personnel of the different public bodies. We used different kinds of training and different kinds of tools.

We knew that we still had a second chance to do it, and we succeeded the second time. We have a program that is running right now, even today in a version out of an application called Foxboro that was discarded in 1994 by the company that created it. It's still working in 2000 in an updated form with a few patches added. Even though it's an old application it achieves the goals for which it is being used, without the need to move on to a newer application with the corresponding cost. And with respect to the many well-intentioned vendors who insisted that they thought they had the solution to our needs, we succeeded in our project and justified an investment in the knowledge and leadership of government workers. We also got an amendment to the law governing our agency, where it sets out our responsibility for implementing or displaying an information network for the entire government of Puerto Rico.

Even in 1998-99 this network linked all the headquarters offices of the central government. And by December 2000 when I finished my term, more than 80 percent of the displays in the island were being done through wireless or antenna technology. After that we had other projects, such as the acquisition *en masse* of laptop computers for all the public school teachers in Puerto Rico from kindergarten to grade 12. Another was the twelve e-school pilot programs in which students had laptops—wireless technology—with batteries that powered the equipment in the classrooms, and then were charged in their homes at night, with training also for parents so that they could use these computers to see how their children were doing and to communicate with their teachers. The principal work tool in their classrooms now is the computer.

So since 1997, each time the governor would give his “State of Puerto Rico” address and would present the budget in the month of February, the budget document was made available simultaneously on the Internet. In the first year we had 29,000 hits and we have averaged in recent

years more than 5,000 user sessions in the first three months, compared with those 250 paper copies we used to have printed before.

Now, besides sharing that experience with you we want to say that there are three important things that governments have to do. We took the budget document and published it on the Internet because, as the Office of Management and Budget, it was the only thing we had going for us that would catch people's attention. After that we published press releases and position papers, as well as bills under consideration by the legislature, etc. We also published the internal procedures of our office, the budgeting standards that are expected from public bodies, etc.

But we learned about three kinds of actions from this process. Number one is that we are in the information age and the knowledge society, and so governments have to think and think again about their educational systems. It's no longer a matter of education from kindergarten through grade 12 or in some cases through college. Now everyone has to study all the time, because the name of the game is knowledge, information and data.

This includes the retirees. Some I know are taking courses in computer use, because their friends tell them what they are doing and searching for on the Internet. (I won't tell you what they're looking at, because there are ladies present.) So these old folks, like my dad who's now 83, want to know what their friends are looking at and what they can't see for themselves. And then you have a new tradition catching on of trying to keep up with the family that is outside the country, and at a lower cost. There are even grandparents with grandchildren scattered all over the world who do videoconferencing with those little cameras that only cost \$40. Even if they can't hug their grandkids all the time, they want to see them and smile at them.

We learned that you have to publish all the information, because it offers us all kinds of opportunities. First of all, it leads to competitiveness inside government because everyone has a better opportunity to inform themselves about what we are doing, and competitiveness with regard to citizens and others interested in our work. This advance also establishes an opportunity and an obligation to make our official information correct as well, fulfilling the requirements of timeliness, consistency, completeness, and correspondence with the transactions and events to which it refers. We believe that the use of the Internet and the provision of information is just like building a house with walls and a roof of glass—clear transparent glass—in which everything perceived by government is also perceived at large, and in which citizens have the opportunity to access and explore and make sure that their concerns are being attended to by their government.

Those governments that don't see any problem in acting this way will find a great opportunity. But governments are like children. Organizations like governments are in my experience like children one and one-half years old. You see them learning how to walk. First they toss their head that is relatively large and wherever their head goes their little body follows. In government, if the boss doesn't take information initiatives—and I'm not talking about putting a computer on the desk and letting it collect dust, but to put it to use, sending e-mail, receiving e-mail, accessing relevant information—the rest of the people won't do it. So the great challenge in information use for a better government, to increase employee productivity and competitiveness, falls principally on government itself.

This information and access have to be universal, rapid and with an adequate bandwidth. They have to be free of charge. The Internet is like a street, like a public highway. Just as a government has the responsibility to maintain the street in front of your home, they must maintain the highway that leads from your home to your children's school. It is the government's responsibility to provide the Internet free of charge to all their citizens without exception, and there are different ways to achieve this that we can talk about later. But it is an obligation and is fast becoming an essential service—more essential even than telephone service. In fact, in the United States the seven companies that have used the most money to get people interested in using the Internet during 1999 spent nothing less than \$11.8 billion for advertising, commercials and other information to get people involved.

Some persons say that there are many obstacles. After looking this over twice, I think that we really have opportunities. If we start from the assumption that we are in a knowledge society, and that our key asset is the human resources, human beings, we have opportunities to move ahead. We can use our failures just as I did and just as other organizations have from which we learned a lot, as a way to learn and as a way to learn how to learn. We need to measure the level of continuing education our public employees are receiving, not just counting their contact hours but evaluating the quality of that time and the usefulness of what they learned. It is more than just a conference. Before the conference starts we should scrutinize the situation to be sure that we will achieve the objectives of the conference or workshop. And the workshop should require some practical exercises to help the attendees to report and to discover whether they understood the concepts, and to express their concerns right then and there before they return to their workplace and lose the opportunity to put it into practice.

There are those who say that there are no resources. People used to tell me that there were no resources, and that they needed so many millions in one area and so many millions in another. The other programs, in fact, that GAO put on its Web site have a linkage with a guide to make the analysis. First of all, we're not going to computerize every single bit of information. There's one percent that really cannot be justified. But that leaves 98 percent or 99 percent that is certainly justified, besides that which we have discussed in relation to competitiveness, productivity and transparency.

It can be justified from the perspective of investment. When we began to analyze project proposals for assigning resources, we adopted the following procedure. We said, "Fine, if people say that information technology typically becomes obsolete every three years—and that's what we used to say ten years ago—then we have to recoup our investment in two years and win a free year after that." We approved 170 projects in a five-year period which were approved on the basis that the investment would be recouped in no more than two years. And all of them managed to recoup the investment on average in little more than one year, implying savings of more than \$250 million that we had invested and recouped in the process. We used those savings to increase the salaries of our public servants, to give them better training, and even to effect a cut in the income tax rates and return money to the citizens.

But there's so much ignorance in this society in which we live, and it gets worse every day. You start with the assumption that from now on the main subject matter will be a greater abundance of information and the need to manage it. Or the assumption that the information

available to us will be increasing geometrically every day. In that case ignorance is a sin. Now I'm ignorant about a lot of things, but I have to acknowledge this, do something about it and train myself to learn about them. And so one aspect that we in government have to deal with is to provide the learning tools in various ways that will help to lower the ignorance out there and encourage continuous learning.

The vendors can be an obstacle in this opportunity. There are many vendors—and this is not a secret, because I tell them this in person and not behind their backs—who, if they don't win the bid and are disappointed with the way it was run, will look for any way to impugn the process and find fault with everyone else. So a procurement process for technology should be a speedy one because of the nature of the products and services involved will last a year and a half. And when that year and a half has passed, what we receive may not be useful anymore, or useful only in the sense that everything else we have is also old. For example, my home computer is 20 years old but it's good for training a child of four. Of course it's not useful any more for real work. Its usefulness is different from what it used to be.

Vendors have to learn how to compete, and they have to pay attention to customer relations—in this case the customer is government—and think in a longer time frame, not just in terms of annual sales targets. Government takes a first step when it purchases its first server, or it is intending to expand its computer installations and then from there develop other initiatives. Vendors have to look on this not as a one-time gain, but as an ongoing process of gains. And the big gain will not arise from a single transaction but from a relationship of service and quality products over a number of years, dealing with all the problems that others have shared with you during this conference.

As for time, that is a great problem confronting every politician including the one who used to be my boss. They don't believe in any project that takes twenty years to bear fruit—or five years for that matter. They want to announce something today and inaugurate it tomorrow. That is the principal defect or fundamental error in all those government projects that fail, especially when they are complex in nature and need a lot of technical input. We have to learn to live with sufficient time to carry out a project. But we can look at projects related to computer information, break them down into modules—do them all simultaneously with special teams and bring them back together in the end.

Back in 1995 when we created in the government of Puerto Rico a committee to set down public policy on information and guidelines for implementation, we started with the assumption that each entity purchased the applications they wanted. In our office alone there were persons using spreadsheets from four distinct vendors. The floppy disks had two distinct formats. So we had tremendously incompatible characters, so to say, even though everyone was creating information systems. You need to work with a common base and move together to the same goal.

Whether it's technology or politics, don't commit the error of adopting a single platform that comes from one vendor. The decision may save money today but will lead to extremely high costs later on, not to mention the real disaster that occurs when that vendor goes under and is no longer in operation. You should adopt platforms that allow for data conversion from one to the other, and each governmental unit should choose those that are compatible with each other.

Could you take out a piece of paper? I'm giving you another assignment. I don't have any books to sell. But I'd like to add something that comes from your own experiences. I think in the fight against corruption and the use of e-government information systems, it's important for you to offer us your own advice. On one side of the paper give us one idea for avoiding corruption, based on a real case you know about, but don't give your name or other identification. And on the other side make a list of the possible cases of corruption that you have seen throughout your lives. And if you would take your sheet and leave it on top of the corner table I will pick them up later on today. I promise you that I will pull some information from your reports that will be useful to myself and to Jim Wesberry, who is presiding over the Government Committee of the Interamerican Accounting Association. We want to keep trying to offer practical advice through *Respondanet* on how to fight corruption.

To sum it up, today's message is that the opening of government, this additional transparency, has provided an opportunity to minimize or even eliminate corruption and fraud in government. Besides that—and listen closely all of you who are politicians or political consultants—it saves money and it leads to productivity for public servants because of the increased salaries and training that result, and money will be left over for directing or expanding programs or for increasing the number of programs that government can offer to the citizens. In addition this improvement in itself leads to competitiveness for the country or particular jurisdiction. You saw the case of the municipal government of Caroní in Venezuela as the mayor presented it to us. And you're going to see, inside of two years, that they will return to tell you, "We didn't do it the way we said we would. We did it a different way, but we did it better." That is my message. Thank you very much.

There's another document that Jim Wesberry kindly wanted you to see. We had the opportunity, the time and the collaboration of colleagues in our office last December to put out a document that summarized what we thought had been our contribution to the evolution of the government of Puerto Rico during our eight years. The document is titled, "Evolution of the Government of Puerto Rico, 1993-2000."

That document you will receive unfortunately, so Jim tells me, does not have the appendices because the current government of Puerto Rico, for some reason of which I'm unaware (I'm not criticizing it but only saying this so it can be corrected), in the last three months has carried out transparency in reverse. It has deleted some documents instead of increasing the number that should be there. This section was one of those deleted, and the copy you are getting will not have the appendices.

I am available to answer any question you may have, now or later, and in any language.

Ethical and Financial Controls: A Multinational's Approach

Mike Thibault, Deputy Director, U.S. Defense Contract Audit Agency

Pat Gnazzo, Vice President, Business Practices, United Technologies Corporation

Luis Leskovar, Director of Human Resources, Latin America

United Technologies Corporation

Mike Thibault, Deputy Director, U.S. Defense Contract Audit Agency

I have the easy job of this presentation and that is to set the framework of the panel and state the objectives and introduce Mr. Pat Gnazzo and Mr. Luis Leskovar. Mr. Gnazzo is the Vice President, Business Practices, United Technologies Corporation, a multibillion-dollar, multinational organization based in Connecticut in the United States and Mr. Leskovar is the Director for Human Resources for Latin America. He works for Otis Elevator, which is part of the United Technologies Corporation. Mr. Leskovar is based in Brazil, and he has responsibility for all of Latin America and South America with the exception of Mexico.

All I want to do is to reemphasize a couple of things that we've heard throughout the conference—the importance of well-defined internal control systems, the importance of testing and reporting on the results of internal controls, and the importance of holding employees accountable if there are problems or issues associated with internal controls. And we felt it would be useful to share the experiences of a large, multinational corporation with substantial foreign direct investment and joint ventures in Latin America, South America and throughout the world. We think that what we have here with Mr. Gnazzo providing the framework of the corporate office, the driving force strategically for the company, and Mr. Leskovar providing the framework for Latin America will be very useful. Now Mr. Gnazzo will do his presentation in English. Mr. Leskovar will do his presentation in Spanish with his slides in English.

By the way I should have introduced myself. I am Mike Thibault and I am the Deputy Director of what we refer to as Defense Contract Audit Agency, the largest federal audit agency in the United States for contract audit. I have a lot of experience working directly with United Technologies Corporation and I have a lot of respect for the internal controls that they have put in place. Now that does not mean that my organization and their organization do not periodically have multimillion-dollar issues with which we have to deal. But it does mean we can deal with them professionally and we can deal with them with the knowledge that the company has a strong internal control system.

So, Mr. Gnazzo, it is my honor to welcome you here to present the perspectives of a large, multinational corporation.

Pat Gnazzo, Vice President, Business Practices, United Technologies Corporation

Actually he is correct. We do have issues. We are probably disagreeing on about a billion dollars right now.

Good morning. I am from United Technologies Corporation. We're a high-tech company but unfortunately I'm not a high-tech person. I'm afraid of PowerPoint.

United Technologies started as an aerospace company back in the 1920s. Since that time it has grown over the years to a \$27 billion corporation. We employ 160,000 individuals around the world and we are in 180 countries, 1,900 offices worldwide. We make jet engines. Hopefully they got you here safely and hopefully they will get you back safely. We make helicopters. Sacorsky and we have been making the space suit for NASA since the NASA program started at Hamilton Sunstrand. In addition, our commercial ventures are Otis Elevator, Carrier Air Conditioning Company, International Fuel Cells and our Research Center.

What I'm going to talk to you about is the ethics and compliance program that United Technologies started back in 1986. But first let me make the distinction between compliance and ethics, or business ethics. I will give you my definition. Compliance is making sure that your employees, that the people that you are working with on a daily basis, are following all of the laws, all of the rules, all of the regulations that apply to their business and to their internal policies. You want your people to be compliant with all of the regulations that affect your business.

Business ethics is not the same to every one organization, every one company. It is internal to a corporation. For us, business ethics defines who we are, how we are perceived, how we are viewed by the public or our stakeholders. So our constituencies as a publicly held corporation are obviously our employees, the customers that we serve with our products and our competitors. That may seem unusual to you, that we see our competitors as a stakeholder, but we do. They keep us honest. They help us to advance the state of the art by keeping competition alive.

As I said we are in 180 countries around the world and those are our communities where our employees live. Therefore we have to be concerned about the air that they breathe, the water that they drink and the ground on which their children and their spouses play. And obviously because we're a publicly held corporation we care about our shareholders and understand that in a capitalist society we have an obligation to our shareholders to give them a return on their investment. They expect a return on their investment and if they don't get one unfortunately they don't put money into the company and we can't advance the state of the art and we can't compete. We can't forget our suppliers. We have some 40,000 suppliers from around the world. So our supplier base obviously is a very important ingredient to United Technologies.

We manage our business ethics program with business practice officers around the world who speak the language of the country in which they manage as the business practice officer. So I have

business practice officers in Shanghai, in Moscow, in Kuala Lumpur, in Brazil. Luis Leskovar is our business practice officer in Latin America and in Brazil.

So we manage our program in a decentralized way with reporting requirements to corporate headquarters. But it is the same code in 25 languages around the world. There is no change from country to country. The reason we have business practice officers around the world is because they have latitude to deal with various cultures in their particular country. They do not have latitude to make decisions with respect to the law. The law is the law. Whether it is being enforced or not being enforced, there is no latitude. But with respect to cultural differences the business practice officer has that latitude.

In addition to a business practice program at United Technologies, they have authority to interpret. They have responsibility to investigate. That doesn't mean that they investigate but that they are responsible for initiating the investigation of wrongdoing. They use the resources of the corporation or the resources outside the corporation—accountants, lawyers, quality people—to help in that investigation if that is the issue. They have responsibility to train and that is not only in ethics and compliance but in the law. That doesn't mean that they train, but they have responsibility to ensure that someone is training our employees in those areas where they need to have information with respect to what the law is. They have responsibility to constantly communicate the program to all levels of the corporation, understanding that our business practice officers are a staff organization and total responsibility for the business practice program is management. Just like management has responsibility for the safety of the product and the safety of our employees in producing the product, just like management has a responsibility to protect the environment, just like management has responsibility in the areas of warranty and in manufacturing, they have a responsibility with respect to compliance in ethics.

In addition to the business practice organization, we have an ombuds program. We have neutrals. They are not part of the business practice organization. These neutrals are in all parts of the world where we have employees. Our employees can write to us in their language or call us in their language anytime, anywhere, about anything. We guarantee confidentiality, we guarantee anonymity, and we protect them through the neutral. We started this program in 1986. Today in the year 2001 we have had over 56,000 dialogues, written issues, from our employees from around the world. We have six ombudspersons managing those programs, one at each one of the business units. Those 800 numbers are provided to all of our employees plus all of our vendors. And we have a contract with AT&T so that if an employee calls from some part of the world, and we don't speak the language, AT&T has a translator that they will put on the line immediately and we get simultaneous translation like you are getting right now. Employees can either call or write about anything. "There is not enough toilet paper in the bathroom and I have complained to management and they haven't done anything about it." "The lighting is bad in the manufacturing facility and it's dangerous and people will be injured." "My supervisor is asking me to do something that I feel is wrong and I feel pressure. Can you help?"

That is managed by 170 dialogue and ombudspople around the world, just my equivalent number of business practice officers. So we tell our employees, you can go to your supervisor. That's the proper way. You can go to the human resource department; that's another channel. You can go directly to EH&S, your environmental department, if there is an environmental problem.

You can go to your business practice officer or your legal department or you can use the dialogue ombuds program and they will get the issue to those other organizations in order to investigate and respond. We guarantee a response to every dialogue and every ombuds phone call. What it does is open up the lines of communication with your employees.

I was asked to talk about our controls. You need to understand we are one company and we build our program around our culture. Every country, company, individual has to decide for themselves what works. But what we have done since 1986 is institutionalize a program that everybody in the company understands. You tell your employees what you expect of them. You train them. You give them a communication link so that they know that people are listening to them and responding to them, and then you measure how the program is working through a series of audits. And I don't mean what internal audit does, I mean a series of other kinds of audits and I'm going to go into that in a minute.

As part of my job I report to the audit committee of the board of directors. They are all outside individuals and not employees of the corporation. They sit at the will of the shareholders and I sit at the audit committee and report to them on how the program is working. I tell them twice a year how many allegations of wrongdoing the company has investigated and what the results of those investigations are and how many disciplinary actions we have taken as a result of those investigations. Obviously a program has no life if you don't take corrective action once you find wrongdoing. If you don't take action people will never believe that you are serious about your program. Since we started this program we have investigated over 1,900 allegations of wrongdoing. And well over 1,000 employees have been disciplined. The program must have teeth.

With respect to the auditing, since I report to the audit committee of the board of directors, there are specific responsibilities. One of the responsibilities is the adequacy of internal controls. How are your internal controls working? If you have a quality program are you following it? If you have an EH&S program are you following it? So as part of my job, besides looking at the books and records of each of our organizations, we also have within the organizational structure of internal audit a compliance and operations audit group. That group which is different from other corporations has dotted line responsibility to me. As part of their organizational structure they report to the director of internal audit, but they also report to me. And that group has responsibilities—a kind of a split-function. They do defined audits but they also look at how we are managing our government property. We manage \$4 billion worth of the customers' property—the Government of the United States is \$3 billion right now. How are we managing it based on the rules and the regulations and the procedures that we have put in place?

They check the quality system to make sure that we are following the procedures outlined by the divisions with respect to quality. And they check various procedures within the company that can get us into trouble with respect to systems. I call those systems audits as opposed to transactional audits. They are really not looking at books and records with respect to the finances. They are looking to ensure that the purchasing department is doing things like always getting three bids, if that's what the rule is. And if they don't get three bids and they only get one, what was the exception and did they follow the exception? Is that exception part of the procedures and has it

been reviewed or approved by the levels that need to review it? So they test systems all the time. Plus I use them for investigations.

In any program, in any country, in any company you are going to have a certain amount of individuals who are going to want to do the wrong thing. It is not a simple problem for one country as opposed to another. There is no one country in this world that is perfectly honest all the time and there is no one country that is constantly unethical in their approach. It is people that make mistakes and it is people that cause problems. In any town of 25,000 people there is a jail. That jail could be in Beijing, Peoria, Pretoria, Hartford, Miami, San Paolo.

The majority of people want to do the right thing. But I will tell you we all have our own level of what we believe is the right thing, whether we are from the United States or any other country in the world. If I asked each of you in this room if you do the legal thing, I'm sure you would all tell me yes. But in your country or in my country, we have people that get on our highways and even though the speed limit is 65 miles an hour, some people like to go 85 or 90. You have seen it yourself. I'm not saying you've done it. This means that there is a level for them where breaking the law is not a bad thing. So they make that decision on their own and they understand that the impact of that decision is solely on them if they have an accident. If they get a ticket, they are responsible for the ticket. In a corporate structure, in a corporate environment, what we tell our employees is, "If you break the law, the impact is on everybody. Therefore we cannot tolerate you making that decision on our behalf. You have no right."

I will give you just one final example before I ask Luis to explain how we deliver the program to our employees. We had an operation in one of our companies in Denver, Colorado. It was going to be a new operation, a new development, something that was going to expand the business for that particular company. This operation involved two hundred employees and two contracts, one with a private contractor, the other with a government contractor. In the development they ran out of money from the private contractor's contract, and in order to finish the contract three individuals decided they would move government money over to the private contract to complete the contract and to finish the job. When we found it and the government was told, we had two options. Option #1 under U.S. Government rules was to debar and suspend, meaning stop all business with the Federal government for a three-year period for all of our divisions, even the ones that were not affected and did not become involved. Or we could close down that operation and not be in that business for the next ten years. So rather than impact 40,000 employees, we impacted 200 and closed down that operation and got ten years behind in our development. That was a huge lesson to learn because 197 people lost their jobs when three people made a decision for them on behalf of the corporation when they had no right to do so. Those are the kinds of lessons that we continue to remind our people about to ensure that they understand what the rules are.

Luis Leskovar is responsible for human resources at United Technologies in Latin America for Otis. He is one of my business practice officers. Our business practice officers are not picked from the legal department. I'm a lawyer and Luis is a lawyer, so we'll tell you that there is a reason for that. We don't ask our people to give legal advice, but lawyers do that. We want people to give ethics advice. So we select our individuals not because they are in one department or another but because people respect them, because management respects them. So my business

practice officers have come from the quality department, from the purchasing department, from the communications department and from human resources. And Luis is from human resources. I'm going to ask Luis to talk about how we implement the program in his particular organization in Latin America.

**Luis Leskovar, Director of Human Resources, Latin America
United Technologies Corporation**

As Pat told you, I am in charge of ethical matters as the subdirector of ethics in Latin America for Otis Elevator. Otis Elevator in Latin America involves operations of a little more than \$200 million. And as you possibly know, it is a company dedicated to the sales of escalators and elevators. We have operations basically in every country in Latin America. In some cases we operate directly with our own subsidiaries, as in Brazil, Argentina, Uruguay and Chile. In other cases we work with distributors. But in every case the ethical responsibility is centralized in our office, in our São Paulo headquarters. Basically all our Latin America center of operations is there.

Normally we have all the ethical officers ourselves. We report normally to the highest management, the highest operational representative in the company. In my case I report directly to a line officer, the president for Latin American operations, and also to a staff officer, the worldwide business practices officer. In turn, each country has its own ethics officer who reports to the respective managing director of operations and functionally to me.

As you all can imagine, one of the best-known functions, one of the most common ones for any ethics officer, is the corrective one. I think that the corrective function, which has to do with investigating reports of any kind of illicit act or irregular behavior that can take place in a company, is a classic function. And obviously as ethics officers we carry out that function. At the same time I think that the great challenge for all ethics officers in any company is to dedicate themselves to prevention, to try to forestall the need to investigate possible future complaints, to have to face irregular behavior.

This challenge becomes truly complicated for us, if you consider the structure of our business. Ours is basically one that, despite our manufacturing and sales work, has a different core business, which is the service of maintenance for elevators and escalators. And that is the reason we have so many employees in this area. In Brazil alone we have more than 2,000 employees spread around 32 branch offices throughout a country that geographically is nearly as large as the United States. It is truly an enormous country.

To reach each of our mechanics and supervisors, we had to go out and create a slightly different method for putting out our message. And contrary to what could happen in any other activity, with regard to an ethical breakdown, in which the negative behavior is coming from the managers and supervisors, in our case these breakdowns could start with anyone in the company. For us it's the other way around. Those who are lowest on our organizational chart are those who have the most day-to-day contact with customers, and they are the mechanics who give maintenance services for all the elevators in the region.

In the entire region, just to give you an idea, we are providing maintenance service for more than 50,000 elevators. So you can imagine how many potential problems can arise in a workday, in our contacts with the operators, with those in charge of upkeep in each building, with building managers, with the corporate ownership, etc. The system we envisioned, then, led us to make associations with three areas inside the company: the legal area, the finance area and the human resources, all of these coordinated by myself as the ethics officer. And from this realization we made a special training program.

For the training program that we call “training of trainers,” that should lead to a kind of multiplier effect among our people, we called for a meeting at our national headquarters, which we named “two days at SBC” (referring to São Bernardo do Campo, near São Paulo where we are located). We invited 22 persons, the general managers and supervisors of all our branch offices, to give them information in all the principles of our code of ethics. We were there for two full days, together with our Latin American legal counsel, the ethics officer for Brazil and myself. We gave them training to learn all the principles of the code of ethics, to learn why we were interested in emphasizing the importance of all the stakeholders of the company, without exception. For us the stakeholders of the company are the shareholders, the employees, the vendors, the communities where we work, the customers and obviously also our competitors.

So we had them for two full days. We trained them and then they returned home. This is another topic. They might have been hearing about some of the topics for the first time, such as the antitrust regulations, our confidentiality agreements, our policy regarding conflicts of interest. For that reason we made it clear from the start that some of these were policies that had been implemented for many years in our company and some were more recent. Some rather precise and limiting antitrust, or antimonopoly, regulations have been in place for many years in our company. And it is an area that we think is very important for our sales force to be aware of. We have a very large sales force of about 300 persons in Latin America, and they are in constant contact with others in an environment where, according at least to the feedback they give us, some practices are not too kosher.

One of the things that was a great challenge for us to get to in our retraining, including when we had direct contact with our sales personnel, was to emphasize to them that to sell our products and services we needed to rely only on the merits of our products and services, without saying a word about the relative merits of products and services offered by our competition. You can easily imagine that normally for a salesperson it is so easy to get a customer to look at your product if you just bash the competition.

The confidentiality agreement was also brought up, which we use to defend all our patents and inventions. We set out a very important criterion that is known as an ethics credo for management. That credo was an attempt to change the approach we had regarding ethical subjects. Normally ethical subjects, throughout history, were part of a program championed by the financial people, later on by the legal people and later on obviously by ethics officers when these came on the scene. But it was not considered a vital part of the line manager’s role, especially at the level of top management.

Based on the success we had in previous years, especially in our programs on workplace safety and product quality—and measured their success in terms of having responsibility for the programs pass to the line officers, which was the point at which the programs really took off, started working and prospering—we decided to do the same thing with the ethics program. We emphasized that corporate staff would no longer sponsor the program, but that ownership of the program had to be taken over by the line management. From that point on the line management had the responsibility for sustaining what we consider to be the company's three fundamental or core values: safety, quality and ethics.

We might say that we achieved many objectives, but one of the most important was to position ourselves in the markets where we work as the favorite employer, and that is exactly what allows us to get and keep the best human resources. Here I will show you the ten points of our credo. Obviously we are visibly committed, so that the message appears in all our presentations by management, just as it does with respect to workplace safety, continuous improvement and product quality.

In recent years we also introduced an ethics message in the language of top management. Obviously management had to take the lead and provide the resources, make a plan and implement it. As you all know, all these things—as in anything that has to do with management—are a question of implementation, of accepting and identifying responsibility. And here is something very important that we developed along with the credo for management: a set of tools including risk assessment, that means analyzing in every managerial group the work conditions in each operation, to see whether in the process itself there existed the risk of an ethical breakdown.

We made another tool for implementation at the same time: a checklist for use whenever we analyzed the process by which we were acquiring a new company for the Otis portfolio. What we did besides our typical due diligence was to incorporate an ethical due diligence. We had a long checklist to evaluate, and in some cases of potential acquisitions, the decision was made to not proceed for some negative aspect, for some potential ethical risk that we saw.

Obviously we trained with communications in mind. And at the end of each year—something very important that we started two years ago—we carry out an evaluation among company management, using a form where we go point by point to measure the state of health of our corrective and preventive policies in ethics matters.

And once all these managers have completed their training, they return to the field, to their home offices, where they hold meetings with their own personnel. I think that the special element in the program that we started in 2000 in northern Brazil was that we reached the lowest levels in the organization. Normally these programs are created for the management and occasionally they have an impact on supervisors.

Each meeting—and there were many of them—was held in a company office, and at the time the meeting ended, using the multiplier effect that we started in that first meeting at São Bernardo do Campo, there was a time when three of us officials made ourselves available at headquarters: the attorney, the ethics officer for Brazil and the ethics officer for Latin America—myself. We would have a session of questions and answers with the same persons involved, to answer any

question that might have remained. This meant more than 70 meetings with a total attendance of 1,800. We had more than 90 percent of coverage of all our people, which is effectively total coverage if you take into account the leaves of absence, vacations and work commitments during that time.

Here's the final point for this section. What name could we give this cascaded training plan? First, we did the formation of the multiplier personnel at headquarters, which were the general managers and supervisors from all of Brazil. And then the 70-plus meetings in the field using teleconferences with the three officers who answered all questions that arose in those meetings. And there were always questions, even if just two or three, many related especially to matters that were or were not permitted in selling our products.

Something else we did was to obtain a worldwide satisfaction survey of employees, in which there were four questions related to ethics themes. Here we formed some focus groups, like the examples you see in which the branch offices are located well to the south or well to the north, as in the case respectively of Florianópolis or Salvador, and we also investigated along with our people the reasons for the answers. You know that a survey often yields answers that are apparently clear with respect to what the company wants to know, but if we don't get together immediately with people to explore and understand the motivations behind the answers, often we're going to end up with many uncertainties.

Besides this, obviously during the year we continued with our programs for supervisors and for new personnel. We also implemented last year an interactive CD where people could test themselves directly on the kind of behavior that was ethical.

What we're intending to do this year is to continue training people on these same themes, to go deeper in some cases and cover others for the first time. We're going to create a kit for our supervisors, which will be a binder with three items: a video with a message from the region vice president, in which he will tell how our business has to be carried on from an ethical perspective; PowerPoint transparencies; and an instructor's manual which will explain to each manager line by line how he should explain the meaning of each transparency. It would be like a training program to teach the instructor what to say on each occasion.

Here are the points we will cover: business ethics, especially a focus on our customers and our suppliers. We insist also on the subject of equal opportunity, because one of the big objectives of the ethics program—beyond compliance with standards—is to promote the notion that the only way someone can become a favored and preferred employer in this region is to have an ethics program. I think you know that.

Many surveys have been made in recent years, in which people are asked to describe the attributes that an excellent leader should have. Until now I haven't seen a single survey that does not report that the expectation at the top of the list is that of honesty in leaders. I don't think that it is a coincidence, because it happens in every country. There are surveys from the United States, Argentina, Brazil, etc., and always when people are asked to define a great leader the first characteristic that appears is honesty. For this very reason I think that an ethics program is

something really important for those who want to become favored or preferred employers in the region.

There is another theme, that of sexual harassment, that is fast becoming a very strong issue in our region, an issue that has been somewhat covered or veiled, but one that we have to start moving on and acting quickly because the legislation of countries like Brazil is far ahead in the matter of penalizing offenders.

Finally, we are planning to implement the kit we will hand to each manager, with the video, the transparencies and the definitive instructor's manual that they can take with them in their car and put into practice at any moment. As I told you when I began, definitively the point of our ethics program is to insert it into our consolidated core values for the company, as one of our main values: first safety, and then quality and ethics. Safety, in the sense that we provide safe working conditions for our people. Quality, in the sense that we provide a better standard of products and services for our customers. And ethics, obviously because it is the only way that we consider possible to carry on business. Basically this is the work we are doing in Latin America and the work I am doing as ethics officer for the region. Thank you to everyone.

VACLAV PERICH (Czech Republic): I was very impressed by the presentation of Mr. Gnazzo because of many things, but to save time I will say only one. You mentioned the audit committee of the board of directors, and you mentioned that members are not employees of the company. Could you say more about their structure and proceedings?

PAT GNAZZO (United States): Now under the Securities and Exchange Commission rules within the United States, publicly held corporations have both management people and outside individuals as board members who represent the shareholders of the corporation. The Securities and Exchange Commission now requests that all members of the audit portion of that board be outside and not be employees of the corporation. So even though we have 16 board members at United Technologies, our chairman and our president are only two of the 16. The other 14 come from other companies or other professions, and they are not employees. And the audit members come from those 14 rather than the president and the chairman. So when I talk to them I am talking to them as part of management but explaining the program and having responsibility to them as outside members.

STEVEN HERNANDEZ (United States): My question is also for Mr. Gnazzo. You had mentioned that your business practice officers are not attorneys but they come from various disciplines and functions. I wondered, do they actually leave their discipline to become a full-time business practice officer or are they collateral duty people?

PAT GNAZZO (United States): That's a great question. What I tried to explain to you is that every company has to have its own program. What works for us may not necessarily work for other companies. All of our business practice officers are part time. They have other collateral duties. What we have discovered is that we never have to downsize. Even though we may reduce the employee base in any particular area, we just move the business practice function to another person. So we've gone from 22 in 1986 to 170 today and it will continue to increase because it is collateral duties. Luis gets no extra money. He gets all the problems associated with it and he does

get a lot of notoriety when he has to tell management we have to fire somebody. They listen to him in that regard, and he has a lot of respect in the position of business practice officer, but it is part time. My job is part time because I have other functions in the corporation also.

JEAN-ROBERT JEAN-NOEL (Haiti): As a multinational company, how in the world have you been able to gather and to comply with all the laws and regulations of each and every country?

PAT GNAZZO (United States): In every country of the world the law says you may not bribe my government officials. There is not one country in any part of this world that allows bribery of government officials. Some countries don't enforce it for one reason or another. But what we have seen over years is that you put your people in jeopardy if you decide not to follow the law. I use as example Italy with political contributions which were always illegal and then enforced. The Italian government fell. In Japan, political contributions were illegal. They were not enforced. They became enforced, and the Japanese parliament fell. In Korea, two former presidents of Korea took political contributions from Samsung, Lucky Gold Star, Daewoo. It was always illegal. A new president came in, enforced the law and those companies had to pay penalties. The two former presidents were indicted. In Indonesia, with respect to Suarto's business dealings, the law was not enforced. The law existed. Today the president is going after all of those individuals and companies that participated. You cannot put your people in jeopardy in anticipation that the law will never be enforced. The law exists in every part of the world, and therefore if you care about your people you must follow the law. That means, as the final answer, sometimes you have to be patient. Therefore your products may not necessarily get off the dock with approval from the customs officials when you want them to. It may take you several months. If you are going to be in business and you want to protect your employees you have to be patient.

Continuous Auditing

**Greg Shields, Director, Assurance Services Department
Canadian Institute of Chartered Accountants**

Thank you very much. It is a real pleasure to address such an international group. At the Canadian Institute of Chartered Accountants, all of our work both in traditional auditing and accounting is being done internationally. That is also true of the development of innovative products in which I'm involved at the Institute. All of our work is done along with the AICPA. All of our committees are joint and it is becoming even more international. I'll talk very briefly later about the many countries around the world that are involved in our Web Trust Program.

I am going to talk today about one of the leading edge innovations in which we're working and it is continuous auditing. And I'm going to use a physics metaphor to illustrate where we're heading with this. Recently at one of our board meetings one of the volunteers said, "We really shouldn't spend much more time and resources on continuous auditing. It's just a black hole. It is going to suck up all of our resources and nothing much is going to come out of it." But her view wasn't really the most popular one and it certainly wasn't the view of the group that worked on the Continuous Auditing Research Report with which I was involved a couple of years ago. Our view there was that continuous auditing is really the wave of the future. It is in fact, if you want to use the physics metaphor, a big bang. It could result in a whole new universe of auditing opportunities. So there are two diverse views. I'm not sure what view you will have at the end of my presentation, but you will probably be somewhere in between.

What I'd like to discuss then is the definition of a continuous audit. People have different views on what it is and we have a particular definition. I will also talk to you about why you should bother with continuous auditing. If I asked you to give me the top 100 things you would like to do in your organization to improve it, continuous auditing probably wouldn't be on the list. But I hope you'll see when I go through the presentation that continuous auditing has value and, again, I think it will be the wave of the future.

Of course there are questions as to whether it is actually feasible, and I'll be addressing issues related to that. Then I'll just briefly talk about what we're doing now and what's going to happen next.

What is a continuous audit? The CICA and the American Institute of Certified Public Accountants, along with a lot of academic input and the input of a lot of IT experts, struggled to come up with a suitable definition. I want to stress that continuous auditing isn't just having an auditor at your premises working away all the time. That happens now in lots of organizations.

What we're talking about in terms of a continuous audit is an actual audit report that is available continuously. So looking at this definition, we're saying a continuous audit is a methodology that enables independent auditors to provide written assurance on the subject matter using a series of auditors reports issued simultaneously with or a short period of time after the occurrence of events underlying the subject matter. Now that's quite a mouthful, but let me break that down into some meaningful chunks.

Let's just start though by comparing continuous auditing with the traditional audit with which many of you are likely familiar. In the traditional audit usually there is an annual financial statement; whether you are a government entity or a corporation you normally prepare a financial statement. I'm sure that many of those are audited. In a continuous audit we're broadening the scope. We're saying it could be virtually any subject matter that is important to a decision maker.

Secondly, in the traditional audit, we use generally accepted accounting principles as the criteria against which to evaluate financial statements. They have to meet those criteria to be fairly presented. In the new area of continuous auditing, again the subject matter is wide so we have to develop suitable criteria for that subject matter—again a much broader scope. In the traditional audit we work with generally accepted auditing standards, or GAAS for short. In the continuous audit realm we will be working with standards for assurance engagements. Now we already have such standards available in Canada and the U.S., and in fact there are such standards available internationally. They were developed by the International Auditing Practices Committee.

And last, in the old model, we're talking about annual reporting. It could be days but it is often weeks or months after year end. In the continuous auditing realm we're talking about reporting on short intervals or in real time.

What does that mean? Well, let me give you a couple of examples. First is a short, interval report. A company or a government entity, in this example, each Friday would present the material that was going to be audited, and each subsequent Wednesday the auditor would issue a report on that subject matter. And that's going to happen in this example each and every week. So you see that we have a series of audit reports. This is an actual external auditor's report that is available a short time after the preparation of the related subject matter. In this case there is just a five-day delay in each and every week.

Ultimately what we'd like to move to is real time reporting. This is more difficult, but as we'll see later, it is feasible. In this example someone would go to your government agency's Web site or your company's Web site. There they would see the data in which they're interested and there would be an auditor's report as of the current date and time. The information and the auditor's report would be right there in front of you. So there would be no delay. People would have reliable information available when they want to make a decision and that's what we're striving for.

Let's explore just why we want to go in that direction. There are a number of good reasons. First, we need to have an auditing methodology that responds to the increased digitization or the computerization of business and government. There is a myriad of new technologies available. Everything is becoming computerized. There is really no aspect of business or government that

isn't becoming computerized. Also you're becoming more and more interconnected with other systems. You are becoming networked with other entities.

In Canada, Industry Canada is the leader in getting government involved with e-commerce. More and more the government departments are purchasing all their goods and services via e-commerce vehicles. All aspects of their operations are in fact digitized. So the old traditional model of auditing which is largely paper-based and slow really isn't appropriate any more in terms of this whole new universe of rapid exchange of information, the vast amounts of information being exchanged and decisions which have to be made a lot more quickly than they were in the past.

A second reason is that the information is available and people want to make decisions based on it. Historical financial statements have value. I'm not saying they don't. They are still valuable for public accountants: a multi-billion dollar business. But academic research has shown that historical financial statements really aren't used for decision making per se. They really just confirm at a later date the accuracy of information that was used for decision making earlier in the year. We have to move beyond that and look at the infinite number of possible information sets that are relevant to all sorts of decisions that are being made in government and in private enterprise.

For example, you might want to obtain continuous assurance on a government entity or a corporation's compliance with its published e-commerce policies and practices. More and more entities are doing business over a Web site.

One of the impediments to increased use of Web sites around the world is the lack of trust. Already in the historical audit context we've developed internationally a program called WebTrust. We are in 16 countries around the world, including many firms in North America and Argentina in South America. We are in Hong Kong. It is a service that provides a seal on a Web site that certifies that that business entity or government entity meets certain high standards of doing business. They maintain privacy, they maintain security, and they do what they say they're going to do. So that exists now already in the traditional sense, in that there are historical reports that are updated every six months. Our ideal would be to move that to the continuous auditing world so that the auditor's reports related to that would be available much more rapidly and therefore add more value. We're also, as I mentioned, getting into other subject matters.

Another example is environmental reporting, or sustainability reporting. For example, you could get continuous assurance on the rates of pollution emissions. A bank might want an entity to provide continuous assurance on its compliance with debt covenants. You may want to get continuous assurance on mutual fund values. And ultimately you might have audited financial statements on demand. That would probably be the most difficult, of course. Any of you that have prepared financial statements know that they contain a lot of estimates, and estimates, as I'll discuss a bit later, are harder to audit continuously.

But perhaps the service that has the most potential is reporting on the reliability of systems that generate information. Those examples I just gave you earlier really focus on systems outputs. But what if we can provide continuous assurance on the reliability of systems? There might be

valuable information in your database that you might want outsiders to have in order to make decisions. So what if there was an auditor's report available continuously to assure that that database functions reliably? They could therefore extract information out of that database, use it in whatever way they want and formulate their own reports. And they could do that with the assurance that the data and information they're getting is in fact fairly presented. So there is a value-added service that is highly flexible. We're talking mainly about IT systems, but it could be expanded to other systems as well. That type of reporting, again, exists in the historical audit context. One of the other products we've developed is SysTrust. That service provides auditor's reports on the reliability of systems, that is, whether the system is available as contracted, whether the system is secure, whether it processes transactions with integrity and whether the system is maintainable over time so that the other criteria of availability, security and integrity are met. Again, that service exists in the historical sense and our objective is to move it to the continuous world.

You might say, why is continuous auditing still relevant in an era where systems are becoming more and more reliable? Well, the traditional drivers of auditing that have existed for hundreds of years still exist in the current world. Those drivers relate to conflict of interest between information providers and information users. Information providers often try to put themselves in the best light. So there is a bias. People try to make themselves look good in terms of how they're performing. And that's the role of the auditor, to come in and provide independent assurance that the information provided is in fact fair. We are there in fact to overcome that conflict of interest that is bound to exist.

Auditing is also relevant if there are significant decisions being made that are based on the information that is audited. Auditing is of no value unless people are making very important decisions on spending, investment, getting into new programs, getting out of programs—key decisions. Auditing can provide value if you want reliable information on which to base those decisions.

Another condition that has driven auditing for hundreds of years that still exists now—our users are still remote from the subject matter and information providers. The Internet has made everyone more interconnected. You can definitely go in and contact a company or individual quite rapidly. But still, companies do not want to make all their systems open to all users. There are going to be barriers. And so again there is a role for auditors. Auditors are going to be allowed into those systems to provide the assurance that outsiders want.

And last but not least is the complexity of subject matter and the audit process. That has not changed at all in the digital world. In fact complexities have increased radically.

Again, those four traditional drivers of the need for audit have existed for hundreds of years and still exist in this modern world. So there is a need for auditing. We want to change it from just historical auditing into continuous auditing, just to add value to users.

And last but not least, in terms of why we need to explore continuous auditing, auditors are interested in this. I guess you could say it is a bit self-serving in that we are really worried that we may lose our relevance. If we just stick with historical financial statements as our main product,

we may eventually become less important in terms of information needs, particularly based on decision making. We can't continue to put all of our eggs in that basket.

As I mentioned earlier, the traditional financial statement audit isn't in the decision-making world, but that's where the money is. Mr. Bob Elliott of KPMG, who has been a leader for the accounting profession in terms of developing new assurance services, often uses this illustration to show where virtually everyone wants to be in moving up the value chain of information. Stage I involves just recording business events, recording transactions. Elliott says the maximum that a person at that level can earn is \$10 an hour. But as you move up the value chain by creating useable data, converting data into information, converting information into knowledge and ultimately using knowledge for decisions, the value, your value, or the value of the person providing that knowledge goes up exponentially. It goes up from \$10 at the bottom of this value chain up to \$1,000 an hour maximum at the top of the chain. Continuous auditing is meant to position auditors closer to the knowledge/decision part of that chain.

As much as auditors would like to move up that value chain, you're not going to be able to sell the service to a government or a private entity unless you can be convincing that the benefits of providing that service can exceed the cost. And so in making that type of decision there must be some marketplace appeal, obviously. We tried to come up with some examples but we are in the initial stages so we haven't really thought through all the possibilities. Most have focused on the private sector rather than the government sector. We thought that banks, for example, might be more willing to cut a percentage or a part of a percentage off their loan rate to an entity if they can be provided with continuous information on key factors that they consider important in maintaining the liquidity of the company. For example, they may want to know what your inventories are, if that's what their collateral is. They might want to know what your cash flow is. They may want to know what your receivable balances are. If they can get that information continuously and have it audited so that there is assurance that it is fairly presented, they may in fact be willing to cut your loan rate by a percentage or a part of a percentage.

And the same is true with an insurance provider. What if your entity wants to get insurance? What if you can provide them with audited information about how you stand with respect to high risk factors? That is, you meet their parameters in terms of risk. They may be willing to reduce your premiums for insurance quite substantially if they have that information provided on a continuous basis.

It can be helpful in investment decisions. There is some academic research that shows that the cost of capital for an organization is reduced when they provide more information and if they provide it more rapidly. So there can be a payback there.

There is also increased development in both the private sector and the public sector in terms of interrelationships of entities. Research now shows that in the future you probably won't be dealing with individual companies. You'll be dealing with companies that are linked together as part of a supply chain. Each entity within that supply chain is going to want to know that they are in fact being dealt with fairly by other entities within that chain before they invest in becoming partners. And so we feel there is a role there for continuous auditing—providing assurance that partners in a value chain are being treated fairly.

But there are roadblocks. People are faced with a number of them. Every one of you that is connected to e-mail and even the old-style mail knows that you are being overwhelmed with information now. More and more of you get hundreds of e-mail messages a day. You get more and more letters. It becomes a bit overwhelming. So people might say, if you provide all this audit information continuously, isn't it going to be overwhelming and thus be not so useful? And that is a concern. So the idea is that you will get continuous audit information on key areas only—something that everyone agrees or stakeholders, people within your entity agree need to be audited continuously.

Another factor is the negative impact of more frequent reporting and audit on management behavior. I'm also involved at the CICA with our risk management and governance group. For several years we spent time and effort and research on getting more information about how people behave in entities, what the best control structures are. And we found that the old command control structure for organizations doesn't always work well in terms of achieving the organization's objectives. A lot of organizations are much more effective if they base their operations on trust. People are basically trustworthy. Yes, there are lots of people who aren't, but they are vastly the minority. If you bring in a continuous auditing system you may have people who don't really want to be continuously subjected to an audit. So there can be negative implications there. Again, the key is to be up front, use continuous auditing in key areas of the organization where there is buy-in by employees, by management and by outside entities that this is really a valued service.

Is continuous audit feasible? There are a lot of Doubting Thomases there and there are some high hurdles to overcome. But we think it can be done. We've concluded in the research study that there are six elements that need to be present. All six have to be present to make a continuous audit feasible. Those six are subject matter with suitable characteristics, reliable systems generating the subject matter, highly automated audit procedures, fast and reliable communication links, timely reporting and auditor proficiency. I'm just going to take you through those briefly now.

I must emphasize that it is hard to discuss any one of them in isolation. They are all interconnected; however I will just highlight certain aspects of each just to provide you with information on some of the issues that need to be addressed in moving forward with continuous auditing.

The first thing I would like to talk about is the subject matter. Does the nature of the data underlying the subject matter enable quick audit conclusions? I mentioned earlier that we want to go beyond just financial information. We want to get into all types of information that are relevant to decision making. But not all data are easy to audit continuously. The easiest is routine hard data, and that's data like orders, quantity numbers, invoices, dates, addresses. Those are things that are clearly right or wrong. They are easily handled by an automated system.

Considered as moderately difficult are non-routine hard data. Now why are they non-routine? Well, it is because they may be introduced into a system at irregular intervals and their introduction involves manual intervention. The idea of a continuous auditing, and I'll keep coming back to that,

is a degree of automation. It must be highly computerized. It must be quick. It must be smooth flowing. Human intervention is something you don't want on a frequent basis, although obviously it has to happen on occasion. Non-routine hard data like changes in tax rates or a decision to change credit limits or a change in accounting cutoff times—all those types of things introduce an element of difficulty in the continuous audit, but it is not insurmountable.

The most difficult but not impossible type of data to incorporate into continuous auditing is soft data. Any of you that have prepared financial statements know that they involve a lot of estimates. In traditional corporate financial statements and I guess the financial statements of some government entities, there are things like allowances for doubtful accounts, allowances for uncollectable accounts, all kinds of provisions for liabilities that aren't precise. That type of data, again, is perhaps more difficult to flow through an automated system. But it's not impossible. Assumptions can be reduced to equations. Judgments can be broken down into very specific components of information that are obtained. And the whole estimation process can in fact be automated. So again, while it is more difficult to try to incorporate soft data into a continuous audit process, it's not impossible.

Next I'd like to talk about reliable systems. We have the data, but what is the system going to do with that data? Is it going to be able to consistently and quickly produce complete and accurate information? Well, systems are complex, and if you look at the SysTrust guidance that I alluded to earlier, they talk about systems as consisting of infrastructure (which is the computer hardware, the software) the people, the procedures and they also include the data itself. And so any of those elements of a system can break down. Modern systems tend to be quite reliable but they are not infallible. But for the continuous audit to be feasible, you have to have a high degree of reliability in your system and that's certainly not beyond the realm of possibility.

I mentioned earlier the four reliability components. The system has to be available, and availability means that if you contracted to have your system available to inside users or outside users at certain times then that is when it should be available. It has to be secure. It has to have the ability to process transactions with integrity and accuracy. The system has to be maintainable. All of those elements of reliability have to be considered in terms of determining whether a system can support a continuous audit.

A question comes up as to whether modern systems can better enable continuous audit. And our conclusion is they do. There are more and more highly integrated systems. People are introducing ERP systems such as SAP that are highly integrated and automated. So with those types of systems, and some of them actually have some embedded audit capability in them, some of the auditor's work is already done. Those systems are in fact more likely to be able to be audited continuously.

But I must emphasize that there has to be a prevalence of what we call preventive controls. That is, you want to have controls in the system that prevent errors from occurring in the first place. Under the old model of auditing you could rely on detective controls. Transactions would be processed and somewhere down the line an anomaly or an error would be detected, maybe a week or two later. And that was fine because the audit is going to take place over a longer period of time. You can wait for the system to identify errors a month or two down the road and then go

and investigate them. But of course in a continuous audit that just doesn't work. So you have to rely on a system catching errors before they occur, and that is what a preventive control does. Not all systems have preventive controls, but again that is not insurmountable. You can in fact implement preventive controls that will work.

Another audit issue, and it really is an issue for the entity that is preparing the continuous information as well, is just how much error or control deviation are you prepared to tolerate.

There are decisions that are going to be new to auditors in the continuous auditing realm as we move into broader subject matter and we move into this very quick reporting. I don't know how many of you are familiar with financial statement auditing, but a lot of auditors have a benchmark for corporate financial statements. For example they will say they allow income after tax to be misstated up to, say, ten percent. They say that users of financial statements can tolerate that degree of error. And the reason that that is required in traditional auditing and it is also required in continuous auditing is that no system is perfect. You have to have a tolerance for some level of control alleviation and some level of error. But the question is what should those levels be. We have that guidance for traditional audits. We haven't developed it yet for continuous audits.

The other element you have to consider is the tolerable risk. I mentioned earlier that auditors would tolerate perhaps a ten percent error in income in a traditional financial statement. Well, what risk are they willing to tolerate that that error will occur? Traditionally some auditors use a guideline of, say, five percent. They are willing to take a five percent chance that an error of up to ten percent of income will occur. Their audit testing is geared to that. All kinds of different decisions regarding tolerable error, tolerance of risk, will have to be made regarding continuous audit. Again, that's a whole new realm with which auditors must deal. However, I must emphasize again that auditors already are getting into this type of work and they develop their guidelines over time through consensus and through practice. So that is not an insurmountable barrier to continuous auditing.

Automated audit procedures—that's another requirement to make the continuous audit viable. There are many types of automated audit techniques that are being used right now in the traditional audit realm. Some situations in continuous audit will require general purpose audit tools. They would do benchmarking, they would do penetration testing, they would do comparisons, they would do tests of numerical continuity—all those types of things that are traditional audit processes. That software is available now and is being used in the traditional auditing world. That software can easily be adapted to continuous auditing, particularly the short interval continuous auditing.

In other situations traditional audit tools really won't work. You'll have to actually get involved in highly sophisticated audit tools. They include embedded audit modules, and these would be subroutines that the auditor actually installs in a client system. They would report on the various parameters that are preset. They would report on anything you deem is important to your audit. It could be, for example, types of payments going through, the frequency of payments, who is being paid. You could set up parameters early on when you are embedding the modules saying, "You must alert me when certain transactions occur that are outside normal parameters."

The same is true for intelligent agents. They are actually more powerful than embedded modules because they can actually go outside your system. Intelligent agents involve computer objects which are combinations of data and programs, and they can do searches just like your Web searches—go out and search for various things you want on the Web. Intelligent agents can be used by the auditor to search a system for whatever you think is important to the audit.

In addition to these highly sophisticated tools, unfortunately in continuous auditing you probably never will be able to get away from manual procedures. If you do have continuous audited inventory, for example, at some point in the year you will have to probably observe a physical count. An auditor will actually have to go out and do that. So you won't be able to completely automate, but the degree of manual procedures will be much less than in traditional auditing.

The type of tool you use, how often it is applied and how much it is integrated into the client system will depend on which type of continuous auditing you want to do. In the short interval reporting (remember my example where I talked about a five-day delay between the time information is available for audit and the time of the auditor's report), you need high systems reliability. You can use traditional audit tools like general audit software. They can be applied daily or weekly and that will probably do the job for you.

However, if you're going to that real-time reporting (the example where people go to a Web site, see the audit information and the auditor's report right there any time of day they access the Web site), that would require a very high degree of systems reliability. You would have to use embedded audit modules that would be perhaps continuously working or digital agents. And those types of things would be required to support the real-time continuous audit. So you're into a different realm.

This issue would only be of interest to auditors, but in traditional auditing we do tests of controls and we use the results of those tests of controls to determine the nature, timing and extent of our test of looking for monetary error directly. In a continuous audit you wouldn't have a time delay and the question arises as to whether you really need what we call substantive procedures anymore. You've got your embedded audit modules or you've used other audit techniques to get information that proves that your system is highly reliable. Then you could argue that if the system's reliable then the information coming out of the system should be equally reliable. So the question that auditors are going to have to ask, and that's going to be a standards issue, is whether there should still be a requirement to not only test controls but perform substantive procedures directed at detecting errors directly. Again, that's of interest not to users, but to auditors. It is a high hurdle for us but it is not insurmountable. People have been talking now for years about more reliance on systems, particularly computerized systems that we know are highly reliable.

Another issue is the significant limitations or benefits to using sophisticated audit tools such as digital agents. We just don't have any, or little, experience in using digital agents. Very few auditors use embedded audit modules. Some internal auditors do but they are not in common use by external auditors. The minute you introduce the use of a new tool questions arise as to whether it is really going to be effective or not.

A big issue too is auditor independence. I mentioned that in the real-time continuous audit we would have to embed audit modules in a client's system. Well that gives rise to all kinds of questions on independence. As you may know, independence issues have been a big concern of securities regulators over the past year or two, particularly in the U.S. If you have your audit module embedded in a client's system that the client controls, isn't your independence automatically impaired? And that is probably a view that a regulator might take. The answer to that is you can take steps to make sure that your audit modules are not in fact interfered with. You can have controls over them to identify any client interference. So that is a surmountable problem, but one that is bound to be introduced by regulators.

Let's look briefly at reliable communication links. So the audit determines that the system has processed data very quickly. The system is reliable. It has been able to process that data without error, hopefully. The audit procedures have been performed, hopefully again, finding no serious anomalies. But then the results of the audit have to be communicated to the auditor. And there are two scenarios. If it is a short interval continuous audit the auditor could go out and visit the client every day or every couple of days. That's not really feasible. So the idea would be that there would be communication links between the client system and the audit modules and the audit procedures that would transmit information back to the auditor's site. So obviously you need secure communication links. There has to be adequate bandwidth to handle the information. And it becomes a cost factor as well.

So what types of information would be given to the auditor? Again, let's take the scenario where you've got a continuous audit process with embedded audit modules. What would happen there? Well, already in some internal audits around the world they have a system of alarms that allows the system and the auditor's automated processes to let the auditor know what's happening, what the results of the audit are.

There could in fact be three levels of alarms. You could have an alarm that says, "This anomaly has occurred. It is not something we have to follow up right now. You should bring it to the attention of some lower level staff at the entity, but we can follow up later."

A second level of alarm would be something that, again, doesn't shut down the continuous auditing process but we'd better look at it in the next day or two because it is an indication that it could result in something big if it is not looked at right now.

And there could be a third level of alarm that would say, "We've got a material control deviation. We've got a material monetary error." And that type of alarm would result in the shutdown of the continuous auditing and reporting system until it can be investigated and resolved.

So the idea of continuous auditing is to keep it rolling as long as serious problems don't arise. But if a serious problem does arise you have to have the capacity to shut it down. And that's where the communication link comes in. Auditors have to know what is going on within the client system and within the audit process they're applying within the client system.

Also after all the process has been done, there obviously has to be a place where people can go and access the continuous information and the resulting auditor's report. It is obvious then that the

particular site where that information or auditor's report resides has to be secure. The report has to be available on a timely basis. So again, controls have to be implemented there at that level and again it is certainly doable.

Last but not least in terms of the six criteria that need to be present for continuous auditing to be viable, I'd like to look briefly at auditor proficiency. Auditor proficiency includes proficiency in auditing itself—how to do an audit, proficiency in business. An audit can't be done unless an auditor has a good understanding of the client's business, and the auditor has to have the right technology skills. Right now we think, and this is the view of the study group with which I work, that by and large there is a balance between the business knowledge, audit skills and technology skills. But we think the profession has to head towards greater audit skills. Surprisingly enough you might think, "Oh, it has to be technology or business." It's not. As I mentioned earlier, this whole continuous audit methodology introduces a whole new set of problems for auditors. They have to rethink what an audit is all about and deal with a broader range of subject matter and new demands on reporting more quickly. So there is a whole new skill set involved there that auditors are going to have to acquire. We see that as something that has to be done. Again, it is doable.

I want to wind up by talking about what's next. I mentioned before that our initial research study was completed a couple of years ago. The American Institute of Certified Public Accountants, along with Canadian representatives from the original study group, decided to look at continuous auditing and see what effect it should have on standards. That work has been going on for the last year. They've looked at it and they've concluded that no substantive change in standards needs to take place. What they're going to do is hand it back to my group and say, "Well, now it is up to you to carry this forward and try to actually develop a continuous auditing service." And that is our intention. It is not on the top of our agenda but we're not going to lose sight of it. There is a commitment on our part to continue with that. In the meantime there is a lot of academic research going on. I alluded earlier to the work of Miklos Vasarhelyi at Rutgers University. He is probably the leading continuous auditing guru in the world. He is very interested in exploring this whole area.

In my view as I said earlier on at the start, continuous auditing is either going to be a big bang, or as some people think, it will be a black hole and nothing will happen. I think in the short term it is just going to be a small pop. There are already some continuous auditing services being developed by the major firms. KPMG, for example, has a continuous audit of some mutual fund values, and that's just the start of a whole new wave of continuous auditing.

In terms of follow up, if you're interested in the topic, you can certainly contact me at my e-mail address, greg.shields@cicaca. I talked to Miklos Vasarhelyi before I came down. He is very interested in any comments or any interest from anybody around the world on this topic. He can be reached at his e-mail address at Rutgers.

On June 1 we're actually having a continuous auditing conference. That started a couple of years ago when we had about 10 or 15 practitioners or academics interested in continuous auditing. Last year it more than doubled. We must have had 50 or 60. This year Miklos tells me that it will be vastly increased again. So this whole area of continuous auditing is gathering momentum.

There is a lot of interest there. I think you will see fairly rapid developments over the next few years.

HERRIOT J.B. ST. PREUX (Haiti): You are talking about a percentage of error in those financial statements. Can you tell us exactly what system you used to arrive at that percentage? What is the formula you used?

GREG SHIELDS (Canada): I should have emphasized that is just a judgmental percentage that has evolved over the years. It is not really embodied in standards and there is no requirement to use that. In fact, auditors have different tolerances. I was just using that as an example of percentages—tolerable error and risk percentages that some of the major firms over the years have incorporated into their statistical sampling methodologies. For government entities that type of materiality consideration wouldn't even apply. You would have to use something else. The whole basis of those determinations is the perception of what's going to be important to the users of the product. The conclusion was that most reasonable, knowledgeable users of financial statements would not be that concerned about a ten percent misstatement of income, although the whole audit is meant to correct any errors that you detect. The idea was that ideally there should not be errors in a financial statement. But if it did occur, that would be the maximum that would be tolerable.

The Evolution of Government Auditing in Mexico: A Commitment to manage a Challenge to Produce Results

Gregorio Guerrero Pozas, Auditor General of the Mexican Federation

Good afternoon. I would like to thank you heartily for the invitation to take part in this 15th International Conference on New Developments in Governmental Financial Management. I am greatly honored that the organizers invited me. It is an institution, a consortium in which we have taken part for many years now. Back in the 1980s the head of the former Treasury Audit Office, Mr. Miguel Rico, was vice president of the Consortium, and from that time we have maintained excellent relations with this institution that organizes conferences such as the one we are attending.

I congratulate the organizers for the splendid event that brings us together today, with a theme that reflects a clear conception of the important matter that affects us all—Impact of EGovernment on Financial Management: Corruption Risks and Control Rewards. I am honored to share this podium with distinguished officials and specialists in the subject matter being covered. Their presentations are sure to significantly enrich our vision on these topics.

The subject I bring to your attention is that of the supreme audit effort in Mexico which is of great interest in my country due to the recent legislative reform that created the Supreme Audit Institution of the Federation. I will begin by presenting some historical background, to show how our institution has evolved over time. It is through time that its systems and procedures have been perfected definitively.

Since 1824, when Mexico emerged as an independent nation, our Constitution endowed Congress with the responsibility of assessing annually the government's accounts. In that same year the Treasury Audit Office was created, which was the forerunner of our present Supreme Audit Institution of the Federation. In that period its fundamental task was to examine and comment on the accounting that the executive branch presented.

From that time in 1824 until 1916 this institution underwent numerous changes because of our country's political situation. In 1850 the Audit Office became a court of accounts and remained so for three years until it reverted to its original status. And in 1917, in the wake of the new Constitution—the same one in fact that governs us today with some obvious modifications—the Chamber of Deputies was given the responsibility again to oversee the Treasury Audit Office through its inspecting committee. In turn the Treasury Audit Office was given a series of commendations that allowed it through time to always be involved in review or audit work in our country.

In 1978—another important date in our institutional history—a new law was passed concerning the Treasury Audit Office. It was granted new responsibilities and powers. Despite this, with the passage of time and even with these new powers that were not necessarily sufficient, our institution did not acquire the necessary credibility. Even before the present Supreme Audit Institution was created, some deputies from the opposition accused it of protecting the federal government and not doing its work adequately, not revealing effectively the outcomes, and not providing information in a convenient way.

That history was heavily influenced by the way our political system operated. Many of you know that we recently had elections in which a candidate from an opposition party won the presidency, after a period since 1910 in which a single party controlled the presidency and a majority of both houses of Congress. This situation lasted for a very long time, and it had a great influence on matters of government audit leading to the inadequate results already mentioned.

This was the situation faced by the deputies of the 57th Congress when it began in 1997 its important role in modifying the Constitutional powers bestowed on the audit organization. In that 1997 legislature, in which no one political party had an absolute majority for the first time in 70 years, as one of the measures of State reform with which they dealt, they debated heavily the precise way in which the process of auditing the executive institutions, as initiated by the legislative branch, should be carried out.

This new political scenario resulted in three initiatives for modifying the Constitution and bestowing broader powers on the audit organization. The three most important political parties in the country presented these initiatives, and a series of discussions about them ensued. The discussions covered these areas: whether to choose a board of directors or a single director of the institution or put it in the hands of a collegial entity; whether very broad powers would be granted or whether the new body would continue to comment on the work of government, as it had done in the past; how the organization should be set up; whether it should be given or not given more autonomy, since previously the law constituting the Treasury Audit Office stated that the audit organization would be dependent on a committee of federal deputies.

Another point of debate had to do with determining whether the audit institution would continue as it was, or whether it would receive greater autonomy and independence that would allow it to complete its technical work. Another matter received a lot of attention, too: the delay in reporting on the findings of reviews. Previously the reviews began six months after the fiscal year end when the public accounts were presented. At that point preliminary work began; six months later the audit began and it could take up to 22 months after the year end for findings to be reported. All of this was fully discussed, and people commented that an audit, even of the *ex post* kind, should not be completed so late because its findings would obviously be of very little use.

There were other discussions in this sense, in relation to the form of the audit institution. The constitutional modifications were urgently needed, as I will show later.

Then another event intervened. In December 1998 the new head of the supreme audit institution was chosen. Our Constitution defines our organization as the supreme investigative entity of the Federation. But the law gives it the name Supreme Audit Institution of the Federation.

So why was the selection so important? Precisely for the political situation I just mentioned. When there was a majority party, and when the president belonged to that party, even if *de jure* the head of the Treasury Audit Office responded to another branch of government—the legislative—what happened *de facto* was that the president was the one who made the selection. And internal party action would just confirm that presidential selection. For this reason the audit and review work that should be directed toward the executive branch was not very effective due to that *de facto* dependency on the executive branch, or rather, on the president.

In 1998, for the first time in many years, the legislative branch effectively chose the Treasury Audit Officer. It was done in the Chamber of Deputies through a committee, and the selection process was an open call for candidates to which 51 persons responded.

After the discussions I mentioned took place, in July 1999 the modifications to the Constitution were published, and increased powers were bestowed—and not only on the Chamber of Deputies in relation to audit and review. Other powers were bestowed on the supreme investigative entity so that its presence would be more influential, so that its audits would be of better quality, so that there would be a more effective intervention in all reviews conducted by that institution. In the Constitution Congress is empowered as before to issue the specific regulatory legislation concerning the Treasury Audit Office, that is, the supreme investigative office. Additional powers were granted to the Chamber of Deputies to coordinate activities with that institution and to evaluate its findings. But the Constitution states that technical and administrative autonomy is invested in the head of that institution. It also bestows on the Chamber of Deputies the powers to select the head of the institution by a two-thirds vote of those present in the Chamber of Deputies.

Already the Law of the Supreme Audit Entity specified the new powers that the deputies decided that the institution should exercise. First of all, the institution received a new name. The issue of timely reviews is also treated there. Now there is no need to wait six months after closing the fiscal year to begin reviews and audits, but these can begin even during the year with the presentation of a mid-year report, the advance report on financial management, which is when audits by the audit organization can begin. Previously they began the following year.

New powers to assign responsibility directly also exist: that is, indemnizations and monetary sanctions applied to officials who have made poor use of resources. In the past there were only recommendations from the institution. Another very important situation is that the law now speaks about the obligation to carry out performance audits, that is, value-for-money audits. These audits, as you know, focus not just on the account balances or legal compliance or the existence of vouchers, but deal with the way the institution is performing or how it is accomplishing the programs provided for in the public budgets. There is emphasis on the three 'E's,' and commentary on the efficiency, the effectiveness and the economy with which all projects are carried out.

The time period for presenting the audit findings was cut to five months. Another matter heavily debated by the deputies was whether the reports should be made public or not. Previously once the audit had been completed, the information was presented to the Chamber of Deputies and was never made public. Now there is an obligation in law that makes the report public as soon as it

is presented to the Chamber of Deputies. Obviously we will put it on the Internet or on our institution's Web page, but it will receive the necessary promotion through the media so that the results of the report will be known.

The law also places great emphasis on the investigation and audit of federal resources being transferred to the states and municipalities. Previously the law was not too clear as to the nature of the intervention of the federal investigative organization in issues of money that went to the states. But now it is very clear. Powers are also granted to the investigative organization to sign agreements with the state accounting or audit offices, to allow them to carry on audits of their particular state's resources as well as federal resources. The coordination agreement calls for adequate feedback with the federal investigative organization: the Supreme Audit Institution of the Federation.

The law also speaks of the review of extraordinary situations. This means that if there is any matter being discussed in the Chamber of Deputies itself, or even in the media or the political or social sphere of our country, when there is a clear accusation about the possible occurrence of irregularities in any of the departments or a state corporation, at that point we can request that the appropriate institution report on the problem. Once the information is presented then we can start our audit. If the case merits presentation to the legislative and judiciary we can take it there.

The law also makes it very clear that, regarding the autonomous organizations in our country, such as the Human Rights Commission, the Federal Elections Institute or the autonomous universities, insofar as they administer federal resources, our institution can carry out audits of that activity.

Now let me point out the main differences between the previous law governing the Treasury Audit Office and the present law covering the Supreme Audit Institution of the Federation. Previously there was a great influence of the executive in the selection of the agency head, since it basically named the head. Currently the balance of power in Congress has led to greater reliance on technical and professional criteria in the democratic selection process. The legal powers formerly were very limited, leading to a very low impact from the Audit Office. The new law confers powers of sanction on the Supreme Audit Institution and, when these are exercised, the institution achieves a more effective presence. The lack of timely reviews of the use of public funds led to inefficient action on the part of the investigative organization. Currently the power to review the semi-annual management report has reduced from 18 to 7 months the interval between governmental operation and the beginning of audits.

Now let us move on to administration and information systems infrastructure. Currently with the support of better budgetary allocations, the supreme audit institution has modernized its information infrastructure. Previously the focus was a traditional one in which audits were exclusively financial or compliance in nature. Currently performance audits are carried out, and there is greater emphasis on accountability. There used to be excessive secrecy or confidentiality over the findings of reviews, and that hindered adequate reporting of the work of the institution. But by legal disposition the report of governmental outcomes will be made public.

Finally, there was a subculture of collusion between the auditors and the audited entities as reviews took place. The political environment and growing public interest have created the bases for a new culture of accountability.

The new law deals also with the way our own organization will be supervised. The Chamber of Deputies will form a committee to coordinate and evaluate the activities of the Supreme Audit Institution. Currently the committee is made up of 30 deputies, of whom 13 are from the Institutional Revolutionary Party (PRI), 12 from the National Action Party (PAN), 3 from the Democratic Revolutionary Party (PRD), one from the Green Party and one from the Labor Party. This committee will supervise and coordinate activities with the Supreme Audit Institution of the Federation. That institution has the obligation of presenting its annual audit program and generally its work program to the oversight committee. The committee will also evaluate whether the Supreme Audit Institution is complying with its mandate. And on the other side, it shall provide all that is needed to guarantee the technical and administrative autonomy of the Supreme Audit Institution.

Another of the committee's powers is to present to the full Chamber proposals for the person who will carry out the functions of supreme auditor, including the measures for removing this official. The committee will have at its disposal an evaluation and control unit to supervise audits of the institution itself.

On the other hand this situation, which has been under discussion in the Chamber of Deputies since 1997, allows the institution to go on carrying out a series of modifications or improvements in the Supreme Audit Institution's own operations. This includes the performance audits we began last year, that fundamentally try to determine the level of compliance with institutional programs, the service quality being provided with public resources, and the benefits that this investment will bring to each institution's programs. There is also an evaluation of the efficiency, effectiveness and economy being achieved in work programs.

Another important result we achieved was that, approximately six months ago, we created and designed in our institution a control and follow-up system for audits. I will present this in greater detail since it is the fundamental point of my presentation at this conference.

This control and follow-up system for audits is something valuable for us, because it allows us greater control, since one of the officials at the appropriate level—in our case, the subdirector—can suggest that an audit take place. From that point a process is set in motion from above to eliminate or to include other audits, until we arrive at the final authorization by the supreme auditor of all the work that has to be done. This part of the audit includes a series of prior studies and adequate planning, which of course includes the information we gather about public administration from other reports in our possession, reports from the Central Bank, reports from the Institute of Geography, Statistics and Information and from other information agencies, all of which we have entered in this system.

All this information we have in the system is useful also because it saves a lot of time that used to be wasted in copying the information issued by all these institutions. With this system we enter information from other agencies, and information about the public accounts for the year we are

reviewing and for other years, to make comparisons between different years, and to look for budgetary variances between one year and another.

This system allows us to pull in the states and include them in the report that we publish, which will be our basis for our audit work. It allows us to go on improving our own audit planning, as we re-use information from previous audits, the results of previous public accounts reviews, current public account statements, reports from the Central Bank—all of this filling in our information gaps so that we can achieve all our audits and give adequate follow-up as well. All this obviously will help us save a lot of time because the information will be there in our own system, and also because we don't have to keep photocopying and visiting other offices to find information.

Now that all this information is stored in the system, our audit planning is easier and our follow-up work to search for improvement is more adequate. Before now it was very hard for the auditors to measure the level of information they needed to conduct an audit. They could tell us that an audit had progressed 50 percent but in fact it had not. Now each step has a percentage value, and so we can see exactly how much each audit has really progressed. And in fact the final outcome derived from the audit would also be some recommendation, some observation, some observation form, some accountability form, or some accusation to the Prosecutor's Office. In a word, we now have all the information we need to find out what is happening in each of the audits in their planning stage and as they progress.

And also, of course, our own institutional management system is included. That allows us to know what each audit costs us, because we have information about trips made from headquarters to other states and other costs. It will help us tremendously to calculate the cost of each audit and compare it with the benefit, the outcome. That cost will include the cost of preparing the report of each of the findings of each review that we carry out.

Now, we designed this system ourselves, and it is well tailored to the needs of our institution. But we think it makes a useful contribution because effectively it allows us to have adequate control and follow-up for all our audits. And of course our colleagues from other countries who would like to know more about this system—we will place it at their disposition.

And obviously to have the system up and running, we needed to update the technology of the Supreme Audit Institution. We used to have very few computer information apparatus, only a few obsolete pieces of equipment. We have received sufficient support from the Chamber of Deputies for our efforts in this area.

Another area where we have made progress is in creating an Institute for Training and Development in the Supreme Audit Institution. We call it ICADEFIS. It was obviously not created just to train our own auditors. I already said that many deputies did not trust the results that we used to present. It was believed that the Treasury Audit Office, rather than presenting outcomes, was covering up for the executive. One deputy even ended up calling the institution as it existed then the 'Treasury Party Office' because it would praise the executive's financial figures.

That situation obviously has undergone change under this new modus operandi, and the new political environment in our country, so that our reviews now have greater scope and greater depth, and the results of our work are more substantial. As we say in Mexico, there's more meat in the stew.

Beyond the training in itself, we have had to work at creating a new vision among our work companions, the auditors. The way audits were done before was admittedly quicker. There weren't all those procedures that led to deeper issues. But those reviews did not lead to the desired outcomes. That is the reason for the new vision, for the motivation our colleagues need so that they understand we are in a different time, a different setting, and we must demonstrate by our results that we see an excellent opportunity for the institution to take advantage of the political climate in our country and strengthen itself, and it will do so. We have done a lot to imbue our colleagues with this new setting, this new motivation, so they can be more enthusiastic about their own work.

It is also obvious that we have applied new investigative techniques and methods to give the audits greater scope and depth. We have an institutional program to promote a culture of accountability. We have received the support of many intellectuals in our country. We have given conferences to the public about the importance of this. I think that greater attention is now being given to these matters than ever before. The Treasury Audit Office really didn't have fundamental support from the executive. In our country more support was being given to the internal control organization that formed part of the executive, and very little public resources were provided for the legislative organization that preceded the Supreme Audit Institution of the Federation, in order to strengthen it.

But this situation is beginning to change. I feel that our institution will have in a short time a very great prominence in the area of investigations in our country. It is obvious that, in the face of our country's key liability—corruption, which we must discourage—we have a key asset for promoting good government through accountability. And because of the support that fortunately we have had, I would say that from 1999 to 2000 our budget grew by 60 percent, and from 2000 to 2001 it grew by another 20 percent. I think that next year we'll have a chance to increase it again, thanks to these new times in which we live and the increased influence of the legislative body.

We were able to restructure our institution organically, and above all we were able to improve substantially the salaries of our audit personnel, which was one of the great shortcomings we used to have. The offices at the secretarial level of government once had greater privileges, and their personnel received very good salaries while ours in the Audit Office were kept very low. This situation has improved, and since last year it continues to do so. Obviously I hope that we continue to have the same salaries as are paid currently to personnel at the secretarial level of government. We have 1,300 persons working right now in our institution.

New areas were created to deal with the performance audits, to have better planning, to develop the new technical systems. Although the universe of our concerns is very broad, because we review the activities of the departments at the secretarial level, the 230 state corporations and the 31 states, I think that little by little we will fortify things. And I think that our institution will

soon have an opportunity to reach a very important and relevant position in regard to political reform in our country.

Among the matters still to be developed is a consolidation of government performance indicators. Unfortunately we don't have such a system yet and that means our reviews of performance are still inadequate. We're creating our own system, but it is obvious that we haven't linked up with many other institutions in our country that have such indicators, or coordinated with them to have greater information about the outcomes of public policy programs in our country. We are researching and developing new techniques, procedures and methodologies. It is clear that this interchange that we have all the time, as is the case today, as we have with INTOSAI, with the commissions or with the OLACIF, is helping us a lot because it contributes to reforming our own institution.

We are interested—and we're already working on this—just as we created a system of audit control and follow-up—in linking up with the information in all the departments at the secretarial level and all the state corporations. It is clear that when we link up with them and incorporate their own information, our reviews will be easier to accomplish and will be completed in a much shorter period of real time. We're working on this, just as we worked on designing our internal system over approximately one year. We intend to link up with the information from all the entities that are involved in putting into practice the public budget.

We also have adequate coordination with all investigative organizations in the states. In my country, in each state there is a central accounting office that conducts reviews of state resources, the resources of each federal entity, and we have great coordination with them. We meet every three months and also have an opportunity to exchange data and information with them that helps everyone carry out our work in a more efficient way.

We are working on the new design for assigning responsibility throughout government. This was a power we did not have before, but right now we are involved in the design. We will achieve this in full after the executive presents to us its first semi-annual report this year. They will do that in August and then we will go about assigning responsibilities. We'll continue working on that to strengthen the performance audits.

In fact, through ICADEFIS, we will continue the professional development of all our personnel and the achievement of our important awareness-raising concerning accountability and the assignment of responsibility, to allow greater follow-up and recouping of fiscal losses and the professionalization of all our governmental institutions.

Now regarding the challenges we have and the commitments we have made, we'll have to chuck our obsolete oversight systems and partial controls that we used to have. We're working on that, and in fact we have a very solid planning and information system. Previously the majority of audits were carried out based on suggestions made by the deputies themselves. With the new powers enjoyed by our institution, we'll have to work more in the planning area, because all audits will be scheduled by a decision from the audit organization itself. We are also working with all the states to elaborate a national investigating system, and to try to achieve exchange with all the states to improve our audits.

We're also coordinating with the internal control units across the federal government. In my country the internal control organization, the Office of the Comptroller, has great support. We of course think that we are on the road to greater strength, but right now they have many elements that are not useful to us in our search for more information and data, from the audits effected through the internal control units in each governmental department.

We also have a commitment to help in creating a very solid preventive environment, and—this is very important—earn credibility from the Chamber of Deputies, Congress and the society. Regrettably society has not given our institution this credibility. I think we're on the way, and soon this will become a reality for us.

A lot has been said in this meeting about ethics and fostering values of personal integrity. We have also made internal efforts which are aimed at such an integration of values and development of ethics in our own audit personnel. We have offered many courses on this theme.

Naturally we have the obligation to take advantage of the new political opportunities in our country. Though we know that our area of interest is technical in nature, our great linkage with the Chamber of Deputies, with the legislative branch, means that we have to be very alert to this democratic development underway in our country. Clearly it is helping us because it has strengthened our institution. And so I certainly think that the situation is of the utmost importance.

I end my presentation by reiterating our most important challenge. It is to achieve institutional credibility for the Supreme Audit Institution of the Federation within a reasonable period of time, something that governmental investigative efforts have not been able to enjoy since they began in 1824. At this time we understand clearly that the first requirement to achieve the objective is to deliver convincing results to the Congress and the people of Mexico. For this we need to consolidate our audit capacity, attending to the lines of action I have mentioned. But we also must allow our daily action to be permeated by a code of ethics that gives precedence to legality and makes us work rigorously in following our mandate; by assurance, so that the results of our audits are rigorously reliable; by objectivity, to achieve investigations free of bias toward those being audited; and by impartiality, giving equitable treatment to all the subjects of our investigations.

This is the task in which we are immersed in this new era of accountability in Mexico. It imposes on us great institutional challenges, important commitments to our managing effort, and unknown challenges that may still lie in the way of our success.

JIM HAMILTON (United States): I would like to congratulate you on this very welcome event, which is coinciding with the democratization in Mexico. I worked for a number of years with the General Accounting Office in the United States, and I'm familiar with the Single Audit Act. I'm particularly encouraged that you include in your plans integrating your work with the other audit agencies in the states of Mexico. Fifteen years ago when I looked for the results of a GAO report, I had to go to page 25 of the newspaper. Now it seems that it's on the front page or at least the second page, because they've been able to inform the public quickly through the press and

television media, and crystallize the findings in a way that the people can understand. I assume you have a similar program, or do you have plans to disseminate to the public your findings?

GREGORIA GUERRERO POZAS (Mexico): Yes. Of course I appreciate your kind remarks. They fit right in with my vision of the way in which our institution is working. We certainly have important link-ups with all the supreme auditors in the states. And this is one of the ways in which we link up for joint efforts, by exchanging our results and reviewing how their audits are doing, and what kind of failings there may be in each of the states as well as in the federation itself.

I mentioned that information is very important for us, and currently our country has to make public and disseminate the findings, once we have presented them. I know that this situation has its risks, because sometimes the presentation you might get in some of the media is not the most adequate. On the other hand, there is the great burden of no credibility that some of our institutions have in our country and that certainly makes it important for the information to be made known, made public and discussed publicly whereas in the past these things were not well known.

This is a debate that is going on a lot in our country, in the sense of which is the better way. One of our journalists put it this way, "To say something is 'better': shall we expose the hump or hide it?" He means the hunchback's hump. Some think that it is not a good idea to be exposing humps because that only leads to greater problems by dampening people's spirits. But others say that you must expose the humps and everything else, so that all can see that there are people mishandling resources, or so that those who intend to do it are deterred, and this serves as a deterrence so that things that use to happen will not happen now.

This has also helped us a lot, to see our information discussed more and more in the Chamber of Deputies itself. And when the deputies bring it into the open and debate it, this certainly leads to our institution beginning to have greater respectability. In the past the officials of departments at the secretarial level saw the Audit Office as a minor entity to which you didn't need to pay much attention. I think they are concerned now about the information that comes from our own work, and I think that insofar as we continue to make our offices more professional, and provide more proven findings, the respectability that we so need from all those officials who handle public resources will go on increasing. I insist, I believe we are in a wonderful moment. We are starting to take advantage of it, but we must keep on in the same direction because this is so important for us.

MANUEL ESCALANTE (Dominican Republic): I work with the Chamber of Accounts. What you have been saying is much the same in other countries in Latin America, principally ours. Now, if we go all the way to publishing our audit work, sometimes we're going to touch a very sensitive public issue. And they will say, "Sanctions! Where are the sanctions"! Then it turns into something like this, "All right, but now what do we do?" They see the findings but the people in question go on enriching themselves and no one says anything. That is one of the great problems we have in our work. I'd like to know what you think about it.

You also spoke about your interventions in the different institutions. Do you have any experience with the military, with military institutions, and whether they let it be published?

GREGORIO GUERRERO POZAS (Mexico): Sometimes the reporters ask me that question, too, in an indirect way, “Okay, you have your findings, you announce in the press that you are seeing these irregularities, but then it’s like nothing happens.” In our case that comes from the limited powers our institution used to have, where it couldn’t go further than that. There was inconsistency in our laws. We would do our review and, where we had the opportunity to find irregularities we would go send our audit findings to the executive so that they could decide in the end whether a possible sanction was in line or not. Obviously when this came to the attention of the executive, many of the findings we obtained stopped right there, and were lost forever.

In that sense I think that the fact of enjoying greater powers will indeed help us a lot because we’ll have the chance to do a more adequate follow-up. And now that we can assign responsibility and recoup some losses, I think that in some measure this very real situation will diminish in importance. I insist to you that the reporters have said this many times. And I think that the dissemination of our findings is beginning to be convenient because it deters the inadequate intervention of the officials. With this type of publicity you start to create a feeling among those who are handling public resources that now it’s really getting serious. This deterrence that occurs when we do things this way, I think that it really does help. You may not see it right away because this is a question of people’s attitudes. But I think that now the way we are working will help that practice to diminish. I also insist that the new powers we have will help in decreasing this kind of commentary that currently is correct.

We did complete an audit of the Department of Defense. And the same thing happened, though we got some findings that in our judgment were sensitive. Since we were empowered solely to make recommendations in the past, nothing else occurred once we presented our findings. But we certainly found anomalies in this institution. I think that our present powers will allow us to have greater freedom of action, which we did not have so much before, to access information in institutions which handled supposedly very sensitive information, as is true of the Departments of Defense, or Public Security or the Navy. In that sense we have had the opportunity to review them, and I think this has actually strengthened our position with respect to them all. There’s even something going on that the deputies don’t like very much: right now we’re doing a review of the Chamber of Deputies itself. That helps us a lot to strengthen our audit capacity in all our institutions.

JIM WESBERRY (United States): Mr. Supreme Auditor: first of all I congratulate you and your government along with Jim Hamilton. I add a footnote for history: now Mexico has taken a step in front of the United States. In 1938 the Brownsville Commission during the administration of Franklin Roosevelt recommended that the name GAO be changed to the Office of the Auditor General, and the head of the agency be named the Auditor General of the United States. The recommendation was not accepted. During the 1940s the first Hoover Commission made the same recommendation, and later in the 1950s the second Hoover Commission said it again. Three times it has been recommended but until now we have not succeeded in creating an office of auditor general. You now have a supreme auditor, using the terminology of INTOSAI, and I think that is very interesting.

Here is my question. We follow the debates, and in Mexico you are studying all the supreme audit institutions of the world. There were strong rumors that you were going to follow the

example of Argentina and create a general audit office, but with several members or auditors instead of just one. We have seen this tendency in Argentina in the last ten years, and last year in Nicaragua their body was expanded to five comptrollers instead of one. What were the reasons that led the Mexican Congress or the government to decide finally on a single supreme auditor instead of a collective institution?

GREGORIO GUERRERO POZAS (Mexico): I'll answer the question about the name change first. I should tell you that it was not easy to change the name. Many deputies thought that they shouldn't change a name with so much history. We saw before that since 1824 the institution has had the same name. Many deputies during the debate thought that they shouldn't change the name, because anyway it is what the agency does—just as I think happens in the GAO—that makes the institution strong, and not so much its name.

But people considered that it was precisely the change of name that would send an important signal that the institution was going to receive strong, heavy support from the legislative branch, something it always had an obligation to do. And we intended to send a signal in that sense by changing the name, because if we kept on using the previous name with all that great history behind it, public opinion might think that we were going to go on just as before. But our desire, which the deputies also expressed, was that right from the beginning it should be a very strong body that really carries out its commitment, and should receive from the legislative branch the information and credibility we need for our investigative work. That was the idea that prevailed, that it was necessary to give it the name of Supreme Audit Institution in order to send the political message.

Another thing you mentioned also took place: a long discussion about whether to constitute it as a collegial body, or leave in place the form of a single head that has always been our country's experience since the birth of the Treasury Audit Office. There were three proposals, one each from the principal political parties. The proposals from the PRI and the PRD stated that it should be collegial in nature. For its part the PAN in its proposal stated that it should not be collegial, because there was a lot of evidence that collegial bodies do not concur too much in the direction they want to go. In their proposal the authors said that it was better to give responsibility to a single person for the good or poor operations of the institution. Otherwise responsibility would be spread over a number of persons, in particular because the members of such a collegial body would each be nominated by their own party faithful.

Someone said during the debate, "It will be everyone nominating a representative of his/her own party, and each of them will march to a different drum and attend by necessity to the line set down by each of the parties. The direction of the institution as such will make no difference because each of the members brings a distinct orientation. But if all this is unified in just one person, that person will be the one who answers to us for the performance of the institution. And in any case as deputies we will have the opportunity to evaluate his/her own performance." But this was indeed a heated discussion.

Well, in Mexico City there is now a collegial body of three persons, making it the only state in our country that has this. All the others continue with the form of a single person. I want to mention that in our country the experiences with three persons have not been good ones. There has

been a plurality of opinions on cases brought before them, and that has led the body to not function or move ahead in the way many thought in the beginning that it must move.

OSVALDO RODRIGUEZ (Venezuela): I belong to the Federation of Public Accountants. Congratulations on your presentation. There was something I was waiting to hear today. How is this auditor general, this supreme auditor, chosen in Mexico? The fundamental problem in my opinion in every country, or at least in Venezuela, is the way the comptroller is chosen. It is not a question of name but of functions and, of course, of effectiveness in office. Fundamentally, after the work is handed over it becomes a matter for the judiciary, because the other function is an administrative one.

Fundamentally I see a problem arising in the way the comptroller general is chosen. In Venezuela the Constitution was changed just now and the decision was made to create a contest, as I would say. I call it a contest because everyone presents his/her credentials and the one with the best credentials is the winner. If you are really committed to fighting corruption, you don't have a process in which a final list of three candidates is chosen and then submitted to a congress or national assembly, so that the numerical strength of one's political party is what determines the outcome. Often the person selected turns out to be an official who immediately becomes part of the political landscape. And then more likely than not when there needs to be a review of the political administration of the country, of course the management review doesn't happen.

So I ask you this. In the case of Mexico, is the selection made in a political way as it is in Venezuela, or based on credentials to make it a clean process that leads to autonomy of action and the ability to carry out control and other important functions?

GREGORIO GUERRERO POZAS (Mexico): It is my understanding that recently they changed the comptroller there. Now the selection process to which I made reference was indeed made in a way that demonstrated a great deal of propriety. A subcommittee of five deputies was formed, and each of the major parties was represented. The call for candidates was announced, and these requisites were stated: the candidate must have experience in public administration and auditing, have reached a certain age, and other such requisites. There was a first evaluation by the five committee members until they agreed on ten persons, who were called in individually for a kind of cross examination. That step obviously allowed them to see which of the ten could go on to the next round. The questions they asked had to do with their experience or lack of experience in auditing, in the public sector and in the whole area of public finance and budgeting, their understanding of the public accounts, which in our country reflect the outcomes of the other two instruments of finance policy: the Incomes Law and the Disbursement Budget for the Federation.

Now with this understanding and this test of candidates by the deputies, a list of five finalists was submitted to the Oversight Committee. The five finalists were called in again to face a series of questions about their professional development, and the committee suggested three persons to the full chamber. And one of these three, who were selected from an original group of 51, with all the requisites I have mentioned, was finally chosen as the Treasury Audit Officer. The law now in effect sets down a term of eight years for the Treasury Audit Officer. In some of our states, unfortunately it still happens—and in some countries, too—that, when a new president takes office the comptroller is changed and replaced by someone who is beholden to the president.

This situation has been undergoing a gradual change. I insist that it still goes on in some states, but the trend is toward changing this style. More weight is being given to one's professional record, experience, reputation, and honesty in previous public positions. But that was the way it used to be in our country, and for that reason I emphasized it in my presentation. I think that this state of affairs had a great deal to do with the way our Supreme Audit Institution of the Federation has developed.

The Responsibility of the SAIs in Developing Internal Control

Arpad Kovacs, President, INTOSAI

Robert Devos, Assistant to the Senior President, INTOSAI

Arpad Kovacs, President, INTOSAI

Ladies and gentlemen, in the written version of my presentation I tried to describe the development of the internal control system in Hungary in the years after the political and economic change. I explained how this internal development was promoted by external audit primarily by the State Audit Office and how internal control can contribute to the prevention and limitation of corruption.

Taking this honorable opportunity I should first of all like to refer back to the conference in Washington last year on corruption. There I explained how the Hungarian State Audit Office, with its work on the regulatory decision-making implementation and control issues of the economy, can contribute to the measures aimed at the curbing and prevention of corruption.

We consider it most important that we support the legislative and control work of the Parliament with our audits, thus contributing to the evolution and continuous modernization of the conditions necessary for the transparent operation of the public sector. Furthermore, the publication of these findings and recommendations may also give impetus and assistance to the audited institutions to address the problems and deficiencies identified and to enhance compliance and improve conditions for more efficient management of public funds.

As a result of the diverse efforts made in the past decade, Hungary has now been able to gain the upper hand over the majority of the peculiar corruption phenomena related to the transitory period of the socio-economic systematic change. Today Hungary is considered by international analysts to be afflicted by corruption to a medium or minor extent. In order to maintain and improve this position, the Hungarian government, following in the wake of the UN, the OECD and the European Union, has designed and adopted a complex anti-corruption strategy.

Ladies and gentlemen, in my oral presentation I should like to give a short account of the way INTOSAI and its special standing committee works on the development of internal control and how we can utilize in Hungary these experiences, how they help us in our work. I will also illustrate this with an example.

The work of the INTOSAI Internal Control Standards Committee spans over a quarter of a century. At its congress in 1974, INTOSAI set up a committee with the objective of designing the appropriate guidelines; while at its congress in 1992 it adopted the internal control principles and standards (Guidelines for Internal Control Standards) which are now widely used and adapted in developed countries.

The Hungarian State Audit Office took over the chairmanship of the INTOSAI Internal Control Standards Committee from the GAO, the supreme audit institution of the United States, in 1992. The committee has performed a comprehensive review and systematization of the literature on internal control and compiled a bibliography. In 1997 and 2000 we organized the first and second Internal Control Conferences. These conferences discussed a number of important issues such as the relationship between the internal and external audit, the structure and independence of the internal control system and its position within public administration agencies, the responsibility of management for internal control, the possibility and necessity of amending the guidelines adopted in 1992, and so on.

I should like to take this opportunity to thank the GAO, the ICGFM and the USAID for the help they extended to the Committee and the Hungarian State Audit Office. It has been an honor for us Hungarians to be able to actively participate in the work of the Committee. It has proved inestimable in developing the audit methodology and approach of the Hungarian State Audit Office in the right direction by the adoption of best practices.

I would like to discuss the internal relations and the structured work the Committee has promoted. First is the evolution of the legal and institutional framework of the public financial control system. The second is the practice of SAI audits of the state or municipal internal control system.

After this, to present our achievements and problems I should like to discuss the current position of the internal control state or municipal agencies based on our audits in this field in Hungary. I would like to say this picture is not so good. And finally I shall mention some conclusions which also define the main direction for our future work.

Following the political and economic changes in Hungary, the legal and institutional framework of a financial control system which was adapted to the new requirements has evolved in Hungary and is operational. Currently, partly in conjunction with our EU accession, institution building and system harmonization measures are the key priorities both on the central and municipal levels. This process has on it the marks of the transitory period—for example, the informal survival of certain elements of the old control system, introduction of partial rules and the creation of new institutions.

The first and decisive step in this process was the creation of the State Audit Office, the audit body of Parliament, independent of the executive power in Hungary.

The financial control-related obligations of the government and the central budgetary agencies were regulated for years by the frequently changing provisions of the Public Finance Act. These

obligations and powers were regulated and incorporated in a uniform system in a Government Decree issued in 1999.

Accordingly, the tasks of the Government Control Office include the performance of internal audits for the Government as well as participation in the professional guiding of the internal control systems of ministries and in the development of audit techniques. Their work is good and successfully complements activity with all institutional work. The ministries supervising the budgetary chapters and the central public administration agencies have audit departments or divisions.

In every budgetary institution internal control mandatorily reports directly to the senior executive. Its work is assessed by examinations by the State Audit Office and governmental and supervisory control agencies. Thus in theory the legal regulatory framework assures that no public funds are used without controls in the public finance sector. In practice, the result is a little different, unfortunately.

We must admit that in the practice of the state financial control, the system of external and internal audit appropriately harmonizing in all aspects, relying on each other, assisting and supplementing each other's work has not yet developed to an adequate degree.

While the situation is improving in the area of the central government and its institutions, the same cannot be said about municipalities and the economic associations within their competence, as I will discuss later.

Legislative regulations and the legal status of the Hungarian Audit Office allow us to exert indirect influence on the development of internal control systems. Still, we have a wide selection of tools for influencing. These include, first of all, the recommendations and comments addressed to the audited bodies and the recommendations addressed to the supervising government agencies. In the course of its audits the Hungarian State Audit Office pays special attention to the examination and assessment of the structure and operation of internal controls.

The audited bodies accept and implement a continuously increasing percentage of the recommendations of the SAO. However, this in itself is not enough. Therefore we try to make the best possible use of alternative tools of influencing such as the publication of audit recommendations, the publication of analytical reviews, the work of the Audit Office staff in trade associations, the training and further training of internal control staff, and so on.

I would like to talk about the internal control system and audit practice. In accordance with the internal control guidelines of INTOSAI, the examination of issues related to the internal control (the rules governing the framework of the operation of organizations, the internal control, techniques, etc.) is an integral part of each SAO audit program.

Furthermore, the supreme audit institution of Hungary has also endeavored to review and assess the position of internal control in the various subsystems of public finance and in state-owned enterprises in periodic comprehensive theme audits. It publishes the resulting findings and

recommendations, thus promoting the development and modernization of internal control systems to a wider audience.

Since the establishment of the SAO over ten years ago, six such comprehensive nationwide theme audits have been completed on internal control. As a result of the dynamic expansion of our international relations and our participation in the work of international audit bodies, by the second half of the decade we got to the stage where we now organize such audits in line with the recommendations in the internal control standards of INTOSAI.

Accordingly, in the preparatory phase of the audit we conduct a questionnaire survey among the audited institutions, and an on-site examination follows the evaluation of the information gathered through the survey.

In ministries, the on-site, on-the-spot examination covers the assessment of the operation conditions and competencies of supervisory control, while in the selected institutions we examine all three elements of the internal control system.

More about the audit findings—from years of audit work examining internal controls we drew the conclusion that in Hungary the structure and operation of internal control is continuously improving with the exception of municipalities and the subordinated institutions they supervise, such as the schools, hospitals, and so on. We have a lot of problems.

Today the mutually interdependent competencies of internal and external and audit bodies and their working relations allow the tracking of financial management processes in the public finance sector. In practice, however, this is not yet fully achieved. Improvement of the personnel conditions of internal control and the propagation of state-of-the-art methods to the widest audience are pressing tasks.

In ministries, internal control generally operates in a uniform organization. The independence of its operation is mostly assured. The frameworks of the competencies are mostly regulated in a decisive part, though ministers do not place uniform emphasis on the importance of controls, which is reflected in the deficiencies in the correlation of tasks and staffing.

As a favorable development, in recent years the improving effectiveness of the control work of ministries has been supplemented by the in-process ex ante control by the Hungarian State Treasury.

Potential for corruption is further reduced by the arrangement whereby an increasing proportion of appropriations managed by the ministries is moved from the application-based system to the so-called program finance category, and in this area the control of the Hungarian State Treasury works effectively.

Within the internal control systems of institutions and offices reporting to the ministries the management and in-process controls are generally implemented in a regulated framework. However, the updating of internal regulations is sometimes absent and the in-process control points have not been identified in all areas.

Currently the weakest link is the independence, professional skills and the remuneration of internal auditors. In some of the budgetary institutions no independent internal auditors are employed, or their numbers are not in line with their responsibilities.

The changes necessary in the field of central budgetary agencies are facilitated by the fact that a parliamentary resolution adopted in 1999 requires the utilization of the audit findings and recommendations of the SAO related to internal control.

One peculiarity of the Hungarian municipal system which is relevant for internal control purposes is its excessively fragmented structure—the inadequately differentiated legal regulation of tasks and competencies. Some half of the 3,200 municipalities has less than 1,000 inhabitants. These municipalities generally have the same tasks and competencies as others, but the material and personal conditions for independent financial management are in many respects deficient. In addition to other external factors, this is the main reason why the supervisory (ownership) and internal controls are among the most neglected areas of municipal governance.

It is very unfortunate that only one quarter of the municipal offices engage in organized and efficient supervisory control over the financial management of the schools, hospitals and so on within their competency. In most municipalities the management does not formulate such requirements, thus control is mostly formalistic.

Experiences are somewhat more favorable in the area of internal control. Over one third of the municipalities regulate and operate the management and in-process controls and their procedures according to the requirements. On the other hand, a similar proportion of municipalities have practically no internal controls. Mostly as a result of attitude-related problems the municipalities of small towns have not taken the opportunity to create control associations for which financial subsidies are also available.

Under these circumstances the external audit of the regularity and expediency of the financial management of municipalities, primarily by the Hungarian State Audit Office, has especially great responsibility. We undertook to control the financial management of each settlement at least once in an election period, that is every four years, and naturally pay special attention to the system audit of the internal control mechanism.

The standard of internal control in firms and asset management companies managing state and municipal property is rather uneven. The structure and operation of the internal controls of (wholly or partly) state-owned economic associations mostly satisfies the relevant requirements. In smaller, mostly municipality-owned companies, the personal and material conditions of internal control are considerably less favorable, and its effectiveness leaves much room for improvement. In the case of organizations managing the real estate property of the state and municipalities used for public services, the work of internal control is hindered by the slow pace of implementation and operational problems of registration and information systems.

Even in the absence of specific legal requirements, internal controls are in operation in state-owned economic associations, fundamentally in line with the recommendations of INTOSAI

standards. The managers of these companies have comprehensively regulated the internal economic and technological processes, the tasks and competencies related to the various positions, the reporting lines, and so on. Separate internal control policies provide for the organization, tasks and operating procedures of the management and in-process control, and the independent auditor (or auditors).

The majority of internal controllers have higher education qualifications and considerable professional experience, and they use the state-of-the-art standards and criteria of control in their work. In the control and supervision of their work, a certain duplicity of the interest representation of owners and the management, a certain overlap of control competencies is discernable. The independent internal audit function is generally headed by the chair of the supervisory boards of the companies. Their work plan is approved by the chair of the supervisory board in agreement with the chief executive officer. In employment terms, however, they are under the chief executives.

The audit findings of the SAO indicate that internal control within these firms works efficiently on the whole even if there are minor issues. It promotes the maintenance of internal procedures and discipline in financial management and the prevention of irregularities and errors.

Ownership rights over the treasury property (including real estate) of the state are exercised by the Treasury Property Directorate set up in 1996. Its responsibilities include the registration of treasury property, its maintenance, conservation and operation. The data content of their registration is not yet adequate in all areas. Furthermore, the personnel conditions necessary for the preventative function of ownership control also need to be reinforced. All this hinders the full enforcement of ownership interests and even entails the risk of the erosion of property. Recently the work towards the elimination of deficiencies has accelerated, mainly as a result of audits by the SAO and the government control office.

I would like to express some conclusions. The findings of the audits performed by the SAO in the past decade prompt us to draw three key conclusions which also define the main directions of our future work.

First, it has been proven beyond doubt that the supreme audit institution has a clear interest, important task and irrefutable obligation to assist in the establishment and effective operation of the internal controls of government and municipal agencies and institutions, even if they are under no legal obligation to do so. We have the possibility during our audits to act upon the responsibility arising from our status, and the potential for exerting indirect influence can be exploited with carefully organized work.

Second, the principles and standards contained in the internal control standards of INTOSAI provide a comprehensive and useful framework for the structuring and operation of the internal control system of the agencies and institutions concerned. They also provide for the preparation and implementation of external (SAO) audits aimed at the assessment of the operation of these systems in practice. Therefore we will continue the adaptation of these principles and standards to the Hungarian environment and their harmonization with the EU requirements and their promotion in the broadest possible circle.

We consider the work of the United States and the United Kingdom exemplary and worth following, whereby they designated the national control standards governing the operation and assessment of the internal control systems of government agencies.

Third, based on our audit findings we are also convinced that in all areas including the prevention of corruption, state financial control can be adequately efficient and effective only if its various elements (SAI, government and institutional internal control) build on each other and supplement each other, thus forming a harmonized system. In this respect we have a lot to do in terms of regulating the tasks and competencies, the structuring of linkages and the practical implementation of cooperation.

Maybe my speech about the Hungarian situation was not so friendly to my home, but I think we should not deny the reality. We are on the way to a better position and in this position we can speak without any limitation regarding our problems and can thus get to the root cause of our problems.

My colleagues, I would like to say thank you for this excellent opportunity to speak about our nation and our problems, of joining the INTOSAI work and the committee activities. Thank you very much for your kind attention.

Robert Devos, Assistant to the Senior President, INTOSAI

Ladies and gentlemen, dear colleagues of the supreme audit institutions, I do feel very honored to have been invited to give a response to Dr. Kovacs' paper. It also gives me the opportunity to say a few words about one of the activities of the INTOSAI Internal Control Committee, namely the updating of the internal control guidelines.

Dr. Kovacs provides us with the opportunity to hear some especially interesting accounts on internal control in Hungary. His account of the establishment of a new legal and institutional framework for control systems in his country was especially instructive. It gave us an idea of how a country in political transition deals with the problem of fraud and corruption. His account once again showed us quite clearly that building effective control structures requires the following critical elements: control standards; managers who accept primary responsibility for effective internal controls; internal control self assessment by managers; internal audits of controls; and finally a supreme audit organization that is engaged in establishing and reviewing internal control systems. The absence or non-functioning of one of these critical elements undermines the effectiveness of control systems.

In that control system framework, an external audit institution such as the State Audit Office holds a permanent position. It is regarded as a means to strengthen financial management and establish more focused accountability in the public sector. Supreme audit institutions can create a preventive environment that does not favor fraud or corruption. An effective system imposes accountability by producing complete and accurate information, so limiting the opportunities for irregularities.

In conjunction with its audit, the supreme audit institution can comment on the effectiveness of internal controls and make recommendations towards improvement. Timely public disclosure of the audits and findings makes everyone aware that the supreme audit institution is actively seeking out information and working to prevent fraud and corruption.

INTOSAI, which you all know is a worldwide organization of supreme audit institutions, always underscores the key role supreme audit institutions play in establishing internal control standards. They create a solid internal control framework working with internal auditors and evaluating internal controls as an integrated part of their audit.

Dr. Kovacs is well qualified to stress the importance of internal controls. As chairman of the INTOSAI committee responsible for developing internal control standards, he knows like no one else that through their external audits, supreme audit institutions can contribute to the prevention of fraud and corruption by focusing on strengthening financial management systems and evaluating internal controls in order to avert or identify weaknesses.

In light of what I have just said, it should therefore be no surprise that supreme audit institutions are so highly interested in internal controls. Why is it necessary that external auditors should also treat internal control of audited organizations as a priority? According to Dr. Kovacs' paper the answer is actually obvious. It lies in the fact that for all elements of control structures, internal as much as external, the final objective of the tools of control must be the promotion of better operation and better performance and the achievement of the organization's goals. All public audit bodies, internal as well as external, must cooperate as a coordinated system and this is why INTOSAI pays close attention to the issues of internal control structures.

Dr. Kovacs' speech proves clearly that he too shares this view. He clearly advocates that supreme audit institutions should play a more active role in evaluating the efficiency and effectiveness of financial and internal control systems. And this policy is in line with the INTOSAI internal control guidelines. For that matter, Dr. Kovacs stated clearly that the Hungarian State Audit Office found guidance in INTOSAI's internal control guidelines. It is not only the Hungarian State Audit Office, but also other supreme audit institutions, a lot of them, that use INTOSAI guidelines as a frame of reference for setting up their own internal control standards and for assisting standards or systems used by the audited agencies.

The INTOSAI Internal Control Standard Committee has a firm intention to develop the initiatives needed to give a permanent basis to the development of the concept of internal control. To this effect the guidelines for internal control standards issued by the Internal Control Standards Committee are convenient too. While working out those standards ten years ago, the Committee came to the conclusion that although systems of government differ widely, standards for strong internal controls are generally the same. The existing guidelines present a consensus of the standards desirable in any specific internal control structure. Government management can use these standards to implement an effective internal control structure and public auditors can use them to help evaluate their structure.

The guidelines were and are considered as a living document. What does it mean? It means that guidelines are supposed to reflect the current trends in designing, implementing and evaluating

internal control structures. Due to such they are useful as an instrument and they can add more value. This entails that if there is a need for updating guidelines for whatever reason, this should be done. The task of INTOSAI in the Internal Control Standards Committee is therefore to follow up the developments in the field of internal controls and where appropriate to initiate updating.

Changing times require changes in the guidelines. An inquiry last year among members of INTOSAI revealed that the majority of the supreme audit institutions are of the opinion that the standards need to be clarified to address changes reflecting ethical values, changes involving new internal control models and changes in the development of new information systems.

Additional guidance should first of all allow for the new conceptualization of internal control. And as a common reference point it was suggested that the COSO model should be relied on because this model has been generally accepted. The COSO model is an integrated framework in which a common definition is established and control competences are identified. It was already explained in one of the previous presentations this week. In introducing COSO, the Committee hopes not only to introduce the new concept of internal control into the guidelines, but also to contribute to a common understanding of internal control among supreme audit institutions which is very important.

Secondly, an updating of the actual guidelines should also address changes in ethical values. Ethics is an important issue today and the Committee's opinion is that this should have the place it deserves in the updating, even if the importance of professional and personal integrity was already accounted for in the existing guidelines.

Updating should not only address changes involving new internal control models or ethical values, it should also address changes in the development of new information systems. The suggestion that standards should be adjusted to take into account the information technology is a major requirement arising from last year's inquiry among INTOSAI members. And it should therefore be a top priority.

IT systems allow government to do so much in terms of management and information, but they also provide an environment conducive to new opportunities and risks. On Wednesday one of the previous speakers in this conference emphasized that the processing of transactions occurs faster and with more complexity in computerized systems than in manual systems, causing increased inherent risk. Furthermore, traditional internal controls such as segregation of duties and the existence of a paper trail are eliminated, causing control risk to rise. Control activities help ensure that actions are taken to address risks. Such includes control over information processing. And it is therefore suggested that the updating will provide guidance concerning control activities for information processing.

The updating process will be a big work, but it should be finalized as quickly as possible. This Committee will work together for this task with two other INTOSAI committees, namely the Committee on Auditing Standards and the EDP Audit Committee. In this way the Committee hopes to provide the supreme audit institutions and other public auditors with the guidance necessary to carry out their audit activities with efficiency. It should enable them even more so

than is actually the case to play their role as a key part in safeguarding public monies and ensuring proper accountability.

I thank you for your attention.

Creating the Transition to E-Government

Felipe Alonso, Partner, KPMG

Good afternoon. After five long days I guess you're a bit tired of hearing the word e-government or other terms such as *e-business*, *egovernment*, *e-commerce* and the like. I promise to try not to use them so much in my presentation. I will also try to make it friendlier and more informative. I am the last speaker on the last day, and I imagine you're tired. So I'll ask you not to worry about taking any notes. I want to share with you, from a fairly strategic point of view, what the trends are today that are moving us to transform into e-government.

My presentation this afternoon has four parts. First of all we're going to discuss why this transformation is necessary. We'll see what is driving that change, especially as it affects government. We'll emphasize the importance of leadership in any action that is taken because, without this element, the chances of success are low. And finally I want to share with you some of the experiences that my company and I have had in recent years in managing the transformation to e-government.

I also want to point out that part of the material I will use this afternoon comes out of a survey commissioned in August 2000 by our firm KPMG and the Council for Excellence in Government. The firm Hart/Teeter was contracted to conduct the survey with three groups: the general public, governmental leaders and representatives of firms that do business with governmental institutions.

Let's start with the reason for the transformation. I'm sure that you have a son or daughter, or you know a young person who is using the Internet. I have a 12-year old daughter. Every night when I come home from work I find her there seated in front of the computer. What's she doing? She's downloading music from Napster, taping music. She has the Bodyshop where she keeps in touch at the same time with her girl and boy friends. She does school work, and perhaps she's doing some other research. What I mean to say is that the new generation uses this medium for all its functions, all its day-to-day tasks. The computer is part of their lives. This new generation is going to demand the same change in government, in our future institutions, as computers are integrated more and more and become a vital force in the economies of each one of our nations.

This is similar, too, to what the Council for Excellence in Government says, that this will be the new American revolution. In my opinion they fell short. It's not a new American revolution but a new renaissance. It is like the Middle Ages when the printing press was invented, which according to historians was the driving force of The Renaissance. To have the documents, when previously the monks were the only ones who read or could read them, making more information accessible to a greater number of persons, that's what created the renaissance. I think that the

Internet, the computers are doing just that in our times. We don't know what's going to be the impact, but we certainly know that it's going to change totally the way we live. So I think that these expectations on the one hand, and the trend for government to provide in better ways for its citizens, will be definitively the factor that takes us to the transformation.

It doesn't just change the way we do things. The Internet allows us to access information at any time of the day, 24 hours a day, 7 days a week, 365 days a year, or carry out a transaction. Before this—well, I don't know if any of you still experience this—when I went for the first time to get my driver's license I went very early to a payment office in Puerto Rico. I got in line and paid my fees, then they sent me to another line, and so I ended up in line all day long so that they could send me my driver's license two weeks later. Today people don't have the patience to get in line. Today they expect to settle their needs much faster and more effectively. And if government cannot make itself over, when election time comes they will throw them out and bring in others.

There is a dichotomy here. Everyone wants more information and at the same time is deeply worried about what's going to be done with that information, above all, information that concerns us as individuals such as privacy and medical records. There's great concern about whether this information can be accessed by others, and how it can be used. There's also great concern about security, whether anyone can get into that computer and alter the information stored there. And that goes to the essence of any kind of transaction: if someone doesn't have confidence that the information can be kept intact, they won't use that resource until there are methods that guarantee information security.

The other thing we are seeing today is that we're not developing applications in isolation, as used to be the case, when applications were developed for single processes such as payroll. Today the applications are highly integrated, highly interconnected, and there are different elements, different players involved. In the case of government we have governments, citizens, government employees, companies that provide services and sell products to the government. Everything in one way or another is tied together. And if there's not good leadership there's going to be a problem. This requires integration and greater planning than we were accustomed to.

So, to conclude this section, every manager in governmental agencies knows that he/she has to change, but the challenge is to take that first step. People say that there are two certainties in life: death and taxes. I think that now there are three: besides death and taxes, we're in a time of change. If we're not ready to change that's dangerous for us, and the speed of change is incredible.

Let's move on to the driving forces behind this change in government. There are four of them. First is the tremendous demand for more information, because with better information decisions will be better, made more quickly and lead to better quality outcomes. The next force driving this demand is a desire that government provide more services for less cost. That is obvious, and I think it is true not just of the United States but of other countries. There's a demand for better service provided at the same time for the same amount of money or less. There's also a demand for better quality from our leaders in government and from government itself. Finally there's a change in emphasis that focuses on outcomes. Before we were focusing perhaps on measuring outputs. Today there's a change toward being concerned not so much about the amount of service

provided but the outcome. How good are the services we provided? It's not a question of quantity but of quality.

Let's each of us explore these four drivers in more detail, and here I'm going to use the outcomes of the survey we commissioned from Hart/Teeter. I'll show the results without reading them, only stopping to emphasize one of the points and later touch on interpreting the results. We see that three-fourths of the public expects to obtain a transcendental change in how government performs. This means that government is open 24 hours—that it's easier to access or communicate with any agency you wish, to obtain the information you need. How many times before have you had to search the yellow pages, call and have them send you somewhere else, and you go on for five or ten minutes calling different places to find the person who can answer your question? Because of e-government this will become easier for all of us, which is what open government means.

We also see what I already pointed out, that information privacy will also be a great concern. We're all very sensitive about information we consider private. It's good to have information but there also have to be guarantees. The same is true about security.

Another outcome of this survey is that we're seeing the potential—the answers vary a lot depending on which group is responding—for using information in an inappropriate way. Apparently the public is more concerned that government officials can use this information, while inside government the concern is not so great. There's a high percentage response, more than 50 percent for all groups, that shows concern over security. What does this mean? If we're not sure that we can trust these systems or the information from them, it's going to slow down adaptation and the transformation process. The speed of the transformation is not as important as doing it in a safe way, minimizing risk and attending to all these different needs. This is what you can see in the responses to this survey.

About privacy, again I think that there's an awareness about this within government itself. In the United States there are several legislative proposals addressing this, especially in the area of health. A quarter of the citizens surveyed expected government to be responsible for guaranteeing this security and privacy—not just government, but also private entities such as insurance companies that do business with government. Then almost 50 percent think that it's a combined responsibility, not just of government but also of the private sector. Again, what does that mean? It means that government has to be aware of this perception because perception is reality. And in any transformation you have to pay attention to this.

Finally, everyone has read in the newspapers about those computer hackers who break into a government Web site and alter some information on the Web page. I don't think it is too dangerous, not as dangerous as getting into a person's file and altering information and not being detected. Obviously this makes good press, but it also reveals a great concern. And if we don't find a way to minimize the risk, the speed of the transformation will be affected.

Let's look at the second driver: getting more for less. There are three points here. To achieve this efficiency there have to be three elements: leadership in the different institutions, a

commitment to change, and a change in emphasis from quantity to outcome quality—outcome oriented—and we have to use the technology and tools available to help us with the transformation.

Again, more than half the public considered that there must be efficiency in the transformation to e-government. This is a challenge because, just as happens with many investments, the outcome is not necessarily achieved in one day. We're talking about creating a technical infrastructure to provide a series of services, and creating this requires a great investment in money. The outcome will be several years in the future; that's a challenge.

Almost three-fourths of government leaders were convinced that this change would make government more efficient; that's obvious. Going back to my example of getting my driver's license, why did we have all those lines? I think that back then it was a way of keeping employment numbers up. But the expectations of citizens: as they use the Internet more, as private enterprise offers more kinds of services, government can't remain behind and not offer those same services to citizens. The way some of these processes are carried out through the Internet changes radically the way that they were once carried out. It cuts time. Once you have the infrastructure you can be open 24 hours a day where before you were limited to the seven to eight hours of the workday. And so these leaders in government are convinced that there can indeed be more efficient outcomes. Again, I think we have to be aware of the fact that it'll take some time before we get to see this efficiency.

I emphasize the initial investment, and I think that this is one of the problems that are often fundamental and that have to be attended to from the beginning. If there is not the commitment for the necessary funds the desired outcomes will not be achieved.

Something else that is important here is that, when you begin any new initiative, it's important to be able to determine when you are successful or not. One of the most important points here is that we have to measure our outcomes. And to measure the outcomes we have to define what are the outcomes we want, and set up a system that can measure whether we are moving or not toward those outcomes.

There is a demand for better government and for quality. On this question 60 percent answered that government can be more efficient. But the public's expectations are sometimes higher than the speed with which government can move. It'll be important to have good communication and to manage the expectations to avoid creating a gap between expectations and actual results. The result of not managing expectations can be a loss of confidence in the institution. It's vital that we manage this in an adequate way and have communication. We're going to see later some of the measures that can be taken to achieve the maximum level of success in these initiatives.

Let's take as an example the process by which many of these agencies get started with the Internet. First, they usually set up a site where they provide certain information about the agency. Then they take a step beyond that and provide information that allows the user to move to different pages and find more related information. The third step is where they allow the user to carry out certain transactions, so that they not only see information but also carry out some transaction such as renew a driver's license. The next step is to integrate different functions within that agency.

And the last step is not only to integrate the agency but also to integrate that agency with others. From the point of view of the consumer, the citizen, what he/she wants is to solve a problem, and there's no interest in knowing that the agency is organized in a certain way with such and such departments. Often that is a factor that hinders progress inside the agency, because each person in a given department tends to think in terms of that department and not to notice that they are there to serve the consumer. If there are several departments involved in providing the service and the departments are not on speaking terms with each other, there's a disconnect, a lack of communication that will lead to a lower quality service to citizens. Again, the important point here is connectivity.

Here's another way to see the same thing, which I want to illustrate. To articulate, to interact, to complete transactions, to integrate and transform: this is an evolutionary process. I see an analogy in the human being. When we are born we start out by crawling, then we move on to walking and then to running. We cannot expect to run without having gone through the crawling stage and the walking stage. It's a mistake to try to start the transformation without beginning some of these processes. That is the experience we have seen, and that is the point I want to bring to you today. The other important thing is that if this horizontal axis is called complexity, insofar as we progress along it the systems we are putting in operation are more complex. But we have to start creating confidence inside the organization before moving on to the next stage. That is part of the essence of my message: it's very important to keep this clear.

The other important thing is that you always have to think from the perspective of those who receive the service in the end: the citizens, the consumers. You have to make things easy for them. For example, if a person can only solve a problem by going to twenty different Web pages or Web sites, it's going to be confusing. Often something is created that is more like a porthole, where you go in and see different options and move around wherever you like, where it's not just one agency of government but several agencies integrated there. It's a movement that you begin to see. That is what we mean when we say a "single sign-on."

Another important thing about customizing information is this: if we're in a computer age, it's also true that we are returning to certain fundamental principles. When we started out with the computer we were just another statistic. But now the computers have so much velocity and they can store more information, and can even keep track of certain features of our behavior. And when we have an interaction with the computer, it can make use of this knowledge it has been accumulating from different transactions we have had with it, so that the activity involving the machine becomes more personalized, more customized. It's reaching a personal level.

Much of this is called CRM—Customer Related Management—and it is the front-end system that is installed today behind the Web pages to interact with customers. This is an important point because it personalizes things, and everyone needs to be attended to. Although this system lacks human warmth somewhat, it still becomes a bit more personal. Finally, we need to take into account elements of security and privacy.

The last factor that drives the change is that we have to change the way we carry out all these services we provide. We have to view things more from the perspective of those receiving the

services—what outcome they want to achieve, and what their expectation is for these services. In the past we were more concerned about how many people we took care of, and not about how many had their problems solved. It isn't the numbers themselves but the effectiveness of our services. That is all that is behind what we're trying to say today.

The other important thing is this. Insofar as we solve a problem, we have to share this information with the rest of the organization or organizations with which we are linked. The customers are the citizens, they are the agency's employees, they are the government entities, they are the companies. All this interchange of information is so important. This is just like what happens in the private sector in the so-called "value chain." This all began in 1980 when the Japanese popularized a method of reducing inventories called "just-in-time" and the same thing is happening here. To give more effective service, all these computers are connected and communicate with each other, and there's an exchange of knowledge that leads to more rapid service at a lower cost.

There's a new risk here that I want to highlight: the risk of not changing. If we stick too much to older processes, each day we're going to be at a competitive disadvantage with other agencies or other countries that have adopted the new systems. It's also important to define the problems we have and the solutions we want for those problems. What I mean is that perhaps it's more important to win some small battles rather than go out and try to win the war on day one. This is a tactic that I recommend when trying to implement these systems: to try to define well the areas in which you can find certain solutions and focus on the effort needed to obtain the solutions, and that will lead to effectiveness. Then with those small successes you start building the transformation.

The other important point here is that we often work in isolation. Inside one and the same organization, and across organizations, people do not communicate. And if you think about it, the citizen who talks about government doesn't care if he/she is dealing with transportation or public works; the point is to settle some matter. This is why leaders have to search for the way to integrate, to connect the functions in order to give better service to citizens. This is also called "joined up government." It's not just an internal issue for government but also for relations with suppliers and other organizations that carry on transactions with government.

Another important factor in a successful transformation is the need for support in the agency. If that commitment does not exist at the agency's highest levels, the probabilities of success will fall. What I mean is that this is not a theory. Quite a few municipal, state and federal government agencies in the United States and, I'm sure, in other countries have been putting some of these ideas into practice for some time. I'm sure of this: whenever we find success we will find someone who has exercised leadership to make it happen. Without this the probabilities of failure are very high. If you take anything from this conference, it should be this: if we're going to start a transformation we have to involve the upper organizational levels of the agency we represent. Without this support we're like masochists.

Now I want to take you through the step-by-step process. When you start a transformation process—keeping the importance of leadership in mind—the first thing to remember is that often we want to complete the six steps, especially in Latin America, by starting out desperately at step five and skipping the first four. That's all right, except that our experience is like the saying, "Take

it slow with me, I'm in a hurry." Do it calmly because, if I try to skip a step, if I try to run before walking I'll have problems.

We have to start with step one. And what is step one? We have to know first of all, to define, what our needs are. Who is using the Internet? Those are the first ones to make use of this modern necessity. We have to get to know a little of the profile of the community that uses it. Once we have this we can go and start identifying opportunities for putting this plan into practice.

That is the first step, to identify. We have to know who among the public, besides the consumer, is involved in this process. Why is this important? If we don't identify the players we'll disregard the principle that a chain is only as strong as its weakest link. More important, insofar as different groups are involved in a project, there should be a commitment from all of them. If we don't identify the players and don't start pushing them to commit themselves to this, we're not going to be successful. That is fundamental. We have to understand who the players are who can help us resolve this opportunity that we have identified.

The next point is this. You have to make sure these players all form part of the team. For that reason it's so important to have support from the top, to get a commitment that this really is important and essential for the agency to get involved in and make it happen. If this commitment, this buy-in, doesn't exist, the probability increases that the project will not be successful. Once we have the commitment of every player, we can go on to the next step: try to achieve good communication.

In every project much that the experts tell us about failures is based on the fact that there was not a good definition of what we're trying to do. There was no communication among all the players about what we're trying to do, and what the role is of each one in the project. Here is where we have to obtain and strive for clear communication, so that everyone knows what their place is, and that everyone forms part of the vision.

Now we are ready to start. We put into practice now the degree to which others in the organization see the outcome obtained and form a part in the transformation. What the experts recommend is that this be a series of iterations. Begin perhaps with those projects that are the simplest, that are more visible, and that will help convince others that the process is feasible, that it can be completed and yield benefits. Achieve some successes and keep on building on those successes to more complex and all-embracing things. That is a leader's strategy in a transformation process.

Now we're going to move to my own firm's experience in this area. I'm going to present a series of short cases, starting with a model of the way the service is rendered. What we're trying to do is to show what happened in the past and what must start to happen now in an e-transformation. There are many factors. First is *space*. Before we were limited in space by geographical barriers. The Internet has destroyed that barrier. We can be global, national; we can expand our horizons beyond physical and geographical limits. That is so important. The factor of *time* we've already mentioned; we were limited before to a 9 to 5 routine, while today we're talking about all day long, and at all moments. These are big differences.

The next factor is *speed*. Today we want to get a solution or an outcome in a matter of minutes. Before now it could take several days to get your driver's license. How were *services* offered in the past? You would have your facility, a building or an office, one in each town to provide that service. But today we don't need that kind of investment, because we just point and click, just press a key. *Value* used to be something you could see and touch, but today value is in all that information, how it is gathered, how it is changed into knowledge and how that knowledge translates into the ability to accomplish processes more rapidly and more effectively.

The more that people have access to correct information, the better their decisions will be. *Community*: All of you who have been on the Internet know that there are user groups with similar interests and that they form communities. This means that someone can be speaking, or taking part in a community with different countries, but it's the common interests that unite them. You see this in questions of health, when people who have a heart condition go to that Web page, communicate and share experiences with others who have the same interest. That common interest is more important than physical proximity on the Internet. If I'm close by or a thousand miles away, it doesn't matter when someone has the same interest.

Risk: There was a time that we were extremely conservative in government, and no one wanted to see change. Today there's a danger: if we're not ready to make changes we'll fall behind. You know how we used *technology*, as a way to solve specific problems that often did not figure in the organization's outcomes. Remember where automation began? It happened in payroll, in the general ledger, in applications of accounting, billing, collecting and paying. But now it's a vital part of the institution and the services it offers, and for that reason it's more than a tactical matter. Today it's part of our strategy, because technology is the means that provides us the power to transform the organization for the digital era, the power to provide more effective and more rapid services for less cost.

So to sum this up: we have seen some of the obstacles that arise from time to time, but the first one on the list is the culture we have in our organization. To get this culture to change is difficult, but we have to address this and give it sufficient time. If we don't, it'll lead to failure. So when we speak of the seven steps that a leader has to take, we're trying to identify the persons who had an interest in seeing this succeed.

The idea is to start to break the cultural barriers inside the organization, the ones that are in every organization. It doesn't matter where we work, that institutional culture often holds up progress in certain areas. You have to attend to it and look for a way to identify the persons who are most disposed to make change happen, to show that it can succeed, to reach out to those still straddling the fence, who are not convinced, who wait for something to happen, so get them to join the group of persons adopting the transformation. There's always going to be some, the experts say, 10 percent or 15 percent who will never accept it. Sometimes you have to back off, but success will happen. There are new generations coming up. It may take a while to succeed but it will succeed.

Let's talk about funding. Every initiative needs some money, ladies and gentlemen. If the money is not committed, even with the greatest will it's going to be very hard. It's important to be sure of the funding so that the projects can be carried out. I think you're tired of hearing those

words security and privacy, but again these are important factors in having something adopted by the general public. Another obstacle is that if the organizational leaders don't commit themselves it'll be very difficult to achieve substantive change. We're not just talking about cosmetic changes, but about dramatic changes in the way we do things in our companies, in our organizations. If there isn't the commitment from the top the chances that we'll be successful are very small.

The other problem is that often we jump into something. Someone says that it'll be so easy making a Web page. We don't think about the problems. We don't think about the technology that is changing. We don't think about the fact that it may work today, but if more users come aboard it'll be too small. And if we don't pay attention to that, then how can we make that architecture grow? This is going to be an obstacle because each time there's a change we have to start from square one, get rid of the old equipment and install newer, more costly equipment. At times it is better to invest in a technological structure that can grow, that is scalable, that over the long haul will cost less than throwing oneself into an architecture that seems to be cheaper when you start but in only a matter of months could be useless and impossible to build upon. That means that we have to look for other solutions. That could be in the end a substantial cost.

The next obstacle is also important because, just as we speak of the haves and the have-nots, we can also have in our countries a digital divide between those who have access to these systems and citizens who do not. That is an issue to which every government has to attend. Many of them start in the schools, in the primary grades, or choose an alternative such as public centers where people can access the Internet. I think that fundamentally it is a question of education. If children who are growing up today don't have access to this new technology, a digital divide between the haves and the have-nots will be the result. It's a challenge.

And now on to connectivity. We cannot limit ourselves solely to our organization. The world in which we live is more complex, many people are interrelated, and many agencies are addressing the same needs. We must connect with them because that will lead to better service to the community. The other thing is that we have change. We're all going to become obsolete in two or three years. We have to get more training in the new technology and the new methods. Today the most certain thing is that we have to learn how to carry out our work in a different way. That is part of the change: that we all have to learn throughout our professional career, learn our skills every four to five years. And if we don't, we'll fall behind.

Next is strategy. It is so important to emphasize outcomes. It's not just a matter of techniques; that's easier. Once you know what you're trying to obtain, then getting the persons who can help you achieve a technical solution is very easy. The challenge is how we define what we really need and what will be the outcome of our services. Once we define this well, solving the technological side is the easy part. The other important thing is this: in matters of strategy you have to align a number of variables, only one of which is the technology. You have to start with the culture, the people, the processes and then the technology, in exactly that order in my opinion. And there has to be support from leadership so that it becomes reality.

It sounds easy. But when you start with an e-strategy, you have to start by considering the perspective of the user, the client, the institutional environment where we work, and the environment all around us. Once you have that information you can start to identify opportunities

to review these process questions: Where am I? Where do I want to go? And what separates the one from the other? To reduce these differences, what do we have to do? What are the opportunities? It's an iterative process that repeats itself, where we begin on the left and come out on the right and then it's a circle that keeps on moving. We call it the "life cycle of development."

Now we have a capabilities model, which means the elements of any initiative. We must pay attention to each of those elements that make up the pyramid. We start with the base, which includes the technical infrastructure, the architecture. There is the network, the computers, the printers, all the hardware and the network. We have to have an architecture that is flexible, that can be expanded insofar as our work volume grows without having to restructure or change it continually.

At the next level, as we deal with so much information we have to attend to the way the information is handled and stored. Think of the expansion of information that is held in the different institutions, and consider that it is expanding geometrically from a factor of 1 to 2 to 4, then 8, then 16. You notice that when we speak of a geometric progression we're talking about incredible growth as we enter the transformation stage. There could even be information overload. If we don't have the architecture for storing this information in a way that we can retrieve it, we're going to try to access it but, because we have so much of it, we won't be able to find it. That's the same as not to have it at all. It's so important to have a strategy for storing and maintaining that information.

The next stage has to do with applications. Traditionally it developed in the back office, as we used to say, with payroll, accounting, billing, payables, etc. But today we have the front office that's connected to the Web page. And that is CRM as I said before, in which you adapt your application to particular needs and personify it. You obtain information about your customers in order to give them better service. All this is so important to keep in mind.

At the next level we have shared services and operations. Today we don't all have to be technical experts but, in our organizations, we have to have a group in which, if there is a problem, we can call someone to give us support, someone to help us reach the solution. We need to integrate this into the rest of the elements. Another important point has to do with policies, especially in regard to security and changing of the passwords. Often we tend to underestimate this, but it is very important because it's also part of how we're going to communicate the information to the rest of the organization.

Here we have information handling: how we limit risk to a tolerable level. We have to reduce the risk to lower levels, and we have to be ready to face new risks. Though we haven't spoken about auditing or internal auditing, it is a function in which we always examine the control risks. So the auditors have to be integrated into the process.

And finally there's leadership. In this model we have areas in which often we have to align strategies and risks with our base strategies and risks, with our techniques. We have to be sure that the objects we're pursuing are attainable because, if they're not, then we'll go under. There have to be resources assigned. Often you have to sacrifice by involving the best employees in the project

now under way, although this means that they have to leave aside the work they were already doing. You have to assign those resources.

I think we have spoken of all these key elements. To sum up: I think that e-government is already here. It isn't everywhere but it is in quite a few places. Each day that passes things will get better, and we'll see its potential. And it's a renaissance. I don't think that anyone knows how it will turn out, but it surely is an exciting time full of opportunities. I don't think that you can ignore it. It's a fact and we have to act on it, we have to start, and some will start out sooner than others. The risk is so important. It's not the speed with which we implement the transformation but how well and securely we move ahead to the transformation. That is another message I want to share with you. We can use a series of techniques and tools to help us control all this.

Last of all, since we're in Florida, I thought I'd quote from Walt Disney, "It's kind of fun to do the impossible." I think that we're entering new territory, new places. I think that's exciting. We can all be part of that change. So look at Walt Disney's vision to create Disney World right here in Orlando. Many people said he was out of his mind, but after 35 years now it is a reality. Thank you very much.