

# Why we need public spending (Part I)

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## Executive summary

- The steady rise of public spending for the past 150 years, in all countries, demonstrates a powerful link between public spending and economic and social development. Spending is now at historically high levels of 40% of gross domestic product (GDP) in OECD countries, and rising in developing countries.
- Public spending is a key factor in economic growth and development. It is essential for financing infrastructure, including roads, electricity, and water. It provides the health and education services necessary for modern economies more efficiently and effectively than the market could provide.
- Public spending has been used worldwide to provide an economic stimulus to counter the recession, and to rescue the banks through public ownership. The crisis was not caused by government deficits, but it is being managed through public spending.
- About half of all the jobs in the world are supported by public spending; two-thirds of them in the private sector through contracts and multiplier effects. Through 'fair wages' clauses and employment guarantee schemes it can spread decent work to many people beyond the public sector itself. Most sectors of the economy are now connected to public spending through subsidies, contracts and investment finance.
- By redistributing money to those on low incomes, it redresses the inequality of income created by the market, and increases spending power. Public healthcare, housing and other services protect people from illness and develop cities without slums. Three-quarters of the global effort to counter climate change will come from public finance.
- Globally, public spending is virtually certain to continue rising sharply, as the role of the state continues to grow in developing countries.

## Introduction<sup>1</sup>

This report is written at a time of great conflicts over public finance.

Faced with the financial crisis and a global economic recession, governments have rediscovered the power of public finance. They used it to rescue the bankrupt banks, and to create more economic activity to hold back the worst forces of recession. Tens of millions of workers are in jobs today who would be unemployed without that economic boost from public spending.

But now there is a conservative backlash demanding that the deficits used to create the stimulus must be cut back by cutting public spending on a grand scale. The backlash comes not only from conservative governments, but from international institutions, led by the International Monetary Fund (IMF), which are insisting that public services are now ‘unaffordable’, and that healthcare and pensions in particular should be dependent on the market.

This report aims to demonstrate that these arguments and policies are wrong, not just in the short term but in the long term. For the past 150 years public spending has been driving economic growth and development, and rising steadily in all countries of the world. Far from being a burden on economies, it is an essential driving force, providing universal services for human development – healthcare, education, social security – and also the essential infrastructure making other economic activity possible, such as water, electricity, roads. If there is to be future growth and development, we should expect public spending to continue to grow, not to be cut back.

In particular, there are two major reasons why public spending needs to grow, not fall back. One is the need for essential infrastructure in the global south – for human and economic development – which will require large investments over many years and the creation of lasting universal public education and health services. The other is the massive effort to combat climate change, which is overwhelmingly dependent on public finance.

The demands of the IMF and conservative governments would be damaging for employment, development and the environment. This report is intended to help resist those policies.

### **The long-term link between growth in public finance and economic growth**

Public spending is often discussed as though it was a burden on a market economy, which would grow much faster if only public spending were cut back. But the economic history of the last 150 years shows exactly the opposite: that economic growth has gone hand in hand with a rising proportion of public expenditure since the mid-19th century. Taxation and spending in high-income countries as a proportion of gross domestic product (GDP) peaked during the two world wars of the 20th century, but the level of state spending and taxation remained high and continued to rise again after World War II until the 1990s.

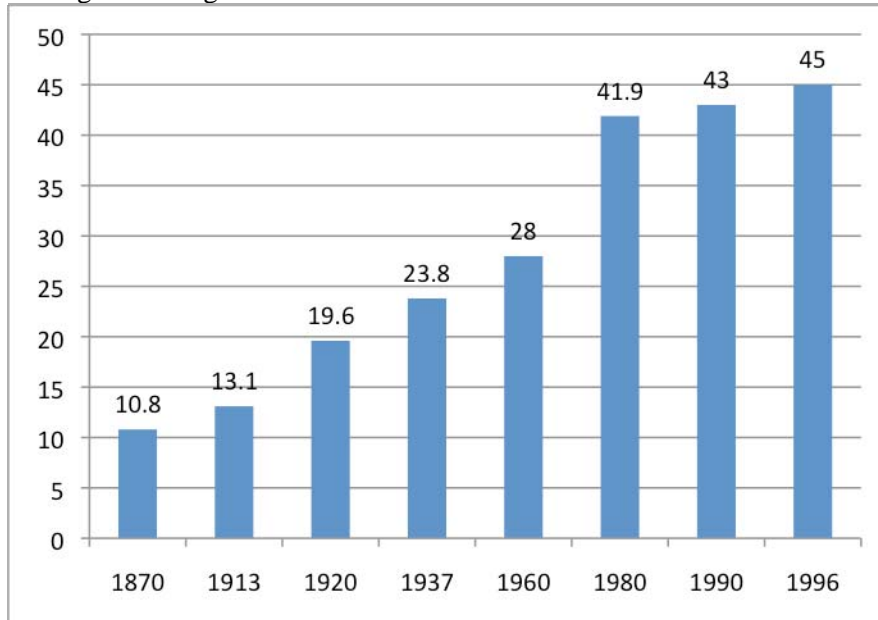
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<sup>1</sup> This article is the first part of a two part article based on research commissioned by Public Services International (PSI). It draws on research carried out for PSI, the European Public Services Union (EPSU) and others over the last 12 years; on work with many trade unionists, civil society groups and researchers around the world; and on teaching and research at the University of Greenwich. The full report on which it is based can be found at: <http://www.psi.org/reports/2010-10-QPS-pubspend.pdf>

This is not just true of European ‘social democrat’ countries; the same inexorable growth can be seen in the USA and Japan. And the same pattern can be observed in each individual country, not just overall. The pattern does not just show public spending rising in line with GDP; it shows public spending rises *as a proportion of GDP*.

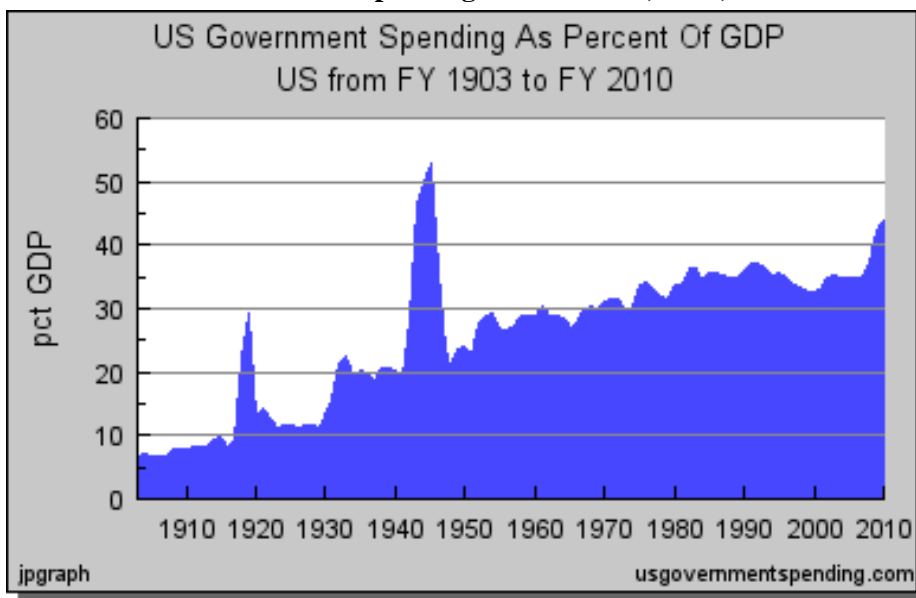
**Chart A. Government spending as % of GDP 1870–1996**

Average of 14 high-income countries



Source: Tanzi and Schuknecht 2000

**Chart B. Government spending as % of GDP, USA, 1903–2010**



Source: [http://www.usgovernmentsspending.com/us\\_20th\\_century\\_chart.html](http://www.usgovernmentsspending.com/us_20th_century_chart.html)

This is not just a coincidence. There is a statistically significant link between rising levels of public spending and economic growth, in developing countries as well as high-income countries. This 'long-run' link is known as 'Wagner's Law' after the economist who first identified it in the 1880s, and has been repeatedly confirmed by the great majority of studies since then. Recent reports include:

- An analysis of 23 high-income countries from 1970–2006 by two central bank economists confirmed “a positive correlation between public spending and per-capita GDP ... [and] a common development among the 23 countries and the widespread validity of the Wagner's law”.
- A study of 51 developing economies by staff at the International Monetary Fund (IMF) found that there was a consistent link across all countries, confirming “a long-term relationship between government spending and output consistent with Wagner's law”. An analysis of India from 1950 to 2008 also confirmed “the validity of Wagner's law in India ... there exists a long-run relationship between economic growth and growth in public expenditure” (Lamartina and Zaghini 2008).

So growth in public spending is not a handicap to economic growth, but seems to be an essential part of economic growth and development, in all countries. Explanations for this link identify a range of ways in which a rising proportion of public spending helps economies:

- Public spending has a crucial role in investment in infrastructure. There are benefits to the whole economy from having good roads, railways, electricity and water supplies, but it is not profitable for private investors to build them. In all countries, infrastructure investment has been driven by the public sector: most of the productivity gains in the 'golden age' of the USA's economy were due to public investment in infrastructure including roads and electricity<sup>2</sup>
- Public spending is a more efficient way of producing many services. A recent study on health and education spending in OECD countries found that “public expenditures affect GDP growth more than private expenditures.” This is consistent with the strong evidence that public spending on healthcare is much more efficient, in economic terms, and more effective, in terms of health

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<sup>2</sup> Bernardin Akitoby, Benedict Clements, Sanjeev Gupta \*, Gabriela Inchauste 2006 'Public spending, voracity, and Wagner's law in developing countries' *European Journal of Political Economy* 22 (2006) 908– 924 <http://dx.doi.org/10.1016/j.ejpoleco.2005.12.001> ; Niloy Bose, M. Emranul Haque, And Denise R. Osborn 2007 'Public expenditure and economic growth: a disaggregated analysis for developing countries' *The Manchester School* Vol 75 No. 5 September 2007 [http://personalpages.manchester.ac.uk/staff/emranul.haque/manc\\_1028.pdf](http://personalpages.manchester.ac.uk/staff/emranul.haque/manc_1028.pdf); Satish Verma, Rahul Arora 2010. 'Does the Indian Economy Support Wagner's Law? An Econometric Analysis' *Eurasian Journal of Business and Economics* 2010, 3 (5), 77–91. Other studies of individual developing and transition countries have varying results: Fumitaka Furuoka, 2008. “[Wagner's Law in Malaysia: A New Empirical Evidence](#)”, [The IUP Journal of Applied Economics](#), IUP Publications, vol. 0(4), pages 33–43, July; Edward Nketiah-Amponsah 2009 'Public spending and economic growth: evidence from Ghana (1970–2004)' [Development Southern Africa](#), Volume 26, Issue 3 September 2009, pages 477–497; Benedict Clements, Christopher Faircloth, and Marijn Verhoeven 2007 'Public Expenditure in Latin America: Trends and Key Policy Issues' IMF Working Paper WP/07/21 February 2007; Vladimir Popov 2009 'Lessons from the Transition Economies: Putting the Success Stories of the Postcommunist World into a Broader Perspective' UNU Research Paper No. 2009/15 March 2009; Andros Gregoriou and Sugata Ghosh 2009 'The impact of government expenditure on growth: empirical evidence from a heterogeneous panel' *Bulletin of Economic Research* 61:1, 2009, 0307–3378 DOI: 10.1111/j.1467–8586.2008.00297.x; Jiranyakul et al 2007 The relationship between government expenditures and economic growth in Thailand *Journal of Economics and Economic Education Research* <http://www.allbusiness.com/economy-economic-indicators/economic-conditions-growth/13478548-1.html>.

objectives, than private spending on healthcare (see below). Very simply, public healthcare is more efficient for the economy as a whole (Aschauer 1989).

- A healthy, well-educated workforce is more productive: "... human capital theory suggests that when oriented towards health and education, such redistributive programs contribute as well to the quality of the labor force, and hence the growth potential of the economy" (Beraldo et al 2009).
- Re-distribution of income increases consumer demand. This is because poorer people spend a much higher proportion of their income, and so redistributing income from rich to poor, through a benefits system stimulates economic growth: "State-sponsored redistribution policies thus may accelerate the pace of economic activity to the extent that they place additional income in the hands of families with relatively high marginal propensities to consume" (Gintis and Bowles 1982).
- Public services are an efficient collective long-term insurance mechanism. In industrialised economies, a public system of collective support in sickness, unemployment, old age etc., replaces the role of the extended family in agricultural societies. Provision of public services and social security allows people to spend more instead of using savings to protect themselves.
- There is a general benefit to social and economic stability: "The possible patterns of economic evolution consistent with the no-welfare-state option include chaos, stagnation, and the development of new and perhaps unprecedented economic systems" (Cameron 1982).

The rise in public spending appears to have levelled off in many countries during the 1980s and 1990s. Some analysts argue that this is because the economic advantage of public spending has come to an end in rich countries, because the burden of tax acts as an economic brake and offsets the benefits of public spending.

But in most high-income countries the overall trend is once again moving upwards. This revived upward movement has accelerated even further since the crisis of 2008, so that the growth is back to its long-term trend. The economic crisis and the policy responses have had a large effect on public spending, especially in OECD countries. In all countries, public spending leapt by 3% to 4% of GDP in one year. The average level across all 27 EU countries in 2009 was over 50%, for the first time, and in the USA and Japan it was above 40%, also for the first time.

Moreover, the same pattern of 'levelling off' can be seen in developing and transition countries. In India, for example, the introduction of neoliberal policies in the 1990s halted the growth in public spending, until the election of a social democrat government in 2004 resulted in renewed growth in public spending.

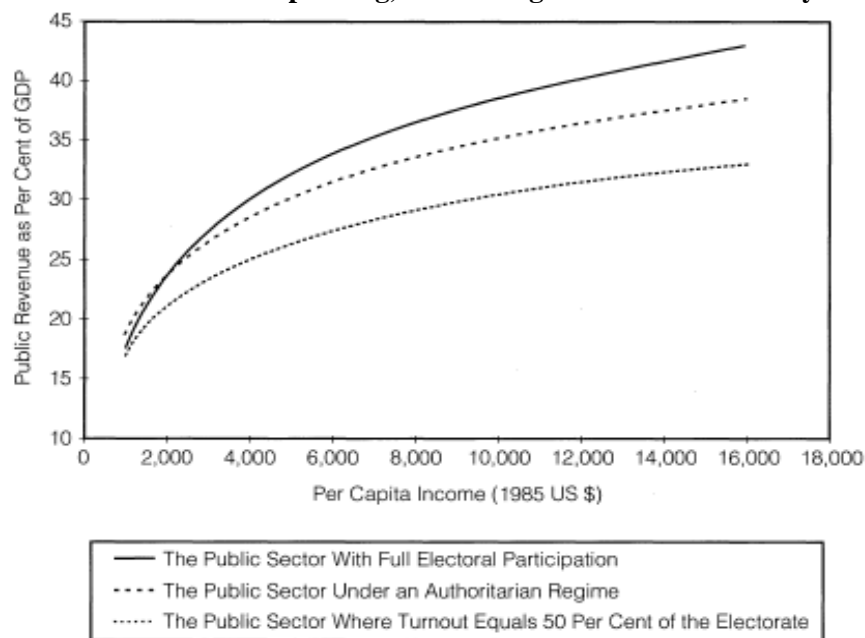
A better explanation for the levelling off is that trends in public spending depend on political decisions. There are real economic and social benefits of public spending, but the decisions on the levels are always the outcome of political processes: there is no market mechanism that automatically generates larger public sectors. So the creation of welfare states and the development of public services was strongly associated with the rise of social democrat governments in Europe, and in newly independent developing countries. However, the spread of neo-liberal politics in the 1980s, led by the Thatcher, Reagan and Pinochet governments in the UK, USA and Chile respectively, achieved a temporary suppression of the trend in the north, and

a more violent disruption of historical trends in transition and developing countries throughout the global south.

The long-term economic advantages of higher public spending remain unchanged. It is possible that one factor behind the economic crisis was the attempt to replace the economic engine of public spending with a financial bubble, which has now failed.

There is also a clear link between democracy and public spending. Active democracies are more likely to produce higher levels of public spending than authoritarian regimes. Spain illustrates this point: while it was still under the dictatorship of Franco in 1974, government revenues amounted to 22.9% of GDP; ten years later, in 1984, the economy had not grown in real terms, but government revenues had risen to 32.7% of GDP. Participation also makes a difference: democracies with high electoral turnouts reach higher levels of public spending than democracies where turnout is 50% or less. Higher life expectancy also increases public spending: the elderly need more public services and a greater incentive to vote for them. The set of curves in the following chart lay down a general framework for the relations between economic growth, public spending and democratic activity (Gintis and Bowles 1982).

**Chart C. Public spending, economic growth and democracy**



Source: Boix 2001

## Responding to the economic crisis

The financial crisis and the recession were not in any way caused by public spending, deficits or debts. But public finance has been crucial in government responses to the crisis. It has been used for two purposes:

- first, to bail out the banks and other financial institutions which would otherwise have collapsed;
- secondly, to provide an economic stimulus to counter the recession

These measures have been very effective in controlling the effects of recession. But they have

necessarily had a big impact on the level of spending and the size of government deficits, especially in some European countries. Developing countries have not had to deal with bank failure, but have had to apply stimulus measures to counter recessions. The net effect has been an upward surge in public spending and deficits of about 4% of GDP, globally.

Most of this has been invested in infrastructure projects that provide long-term benefits.

## Saving the banks

### Box A. ‘Nationalize to save the free market’

*Financial Times* 13th October 2008 FT leader ‘Nationalize to save the free market’

“Does this rescue mean the end of private financial capitalism? Of course not. Nationally owned banks seem likely to be a reality in many countries for a decade. But stakes in banks will, eventually, be sold back to private investors. Governments – rightly – will regulate to avoid further crises. They will fail, and then be forced to act to pick up the pieces. There is no alternative. These leaders are not putting capitalism to the sword in favour of the gentler rule of the state. They are using the state to defeat the marketplace’s most dangerous historic enemy: widespread depression. And they are right to do so.”

<http://www.ft.com/cms/s/0/2ec1ce0e-9951-11dd-9d48-000077b07658.html>

The financial and economic crisis was caused by unsustainable lending and the creation of complex forms of debt by banks. After one USA bank, Lehman Brothers, collapsed in September 2008, the USA and other governments decided to rescue banks by nationalizing them, or injecting large amounts of capital to make them solvent again. This involved injecting capital by buying shares and providing government loans to banks, as well as general government guarantees on bank loans and deposits, and provision of greater liquidity. The IMF described this as “*an unparalleled transfer of risk from the private to the public sector*” (IMF 2009).

The guarantees and liquidity measures, equal to 30% of the annual GDP of advanced economies, did not involve immediate government spending, but ‘upfront’ spending was made through injecting capital into banks, buying shares and extending government or central bank loans. This amounted to 5.5% of GDP of high-income countries – over USD \$1,800 billion dollars. As a proportion of GDP, it was greatest in the UK, which spent a sum equivalent to 20% of GDP on supporting the financial sector – equivalent to half the UK’s annual spending on public services.

Some of the money spent may be recovered, e.g. by selling bank shares at some time in the future; and most of the guarantees will probably not be called upon. But the IMF expects that some elements of all this support will be permanently lost to governments – subsequent sale of the shares may not raise the full amount for which they were bought; some guarantees will be called on. It estimates that the total permanent loss will be 6.8% of GDP of advanced G20 countries – around USD \$2,700 billion.

The cost of supporting the banks may rise further. In September 2010 the government of Ireland announced it was prepared to inject more money into a major bank: “the total cost to save its banks could rise as high as €50bn, more than a third of 2009 national income” (Oakley 2010).

**Table 1. Costs to governments of supporting financial sector**

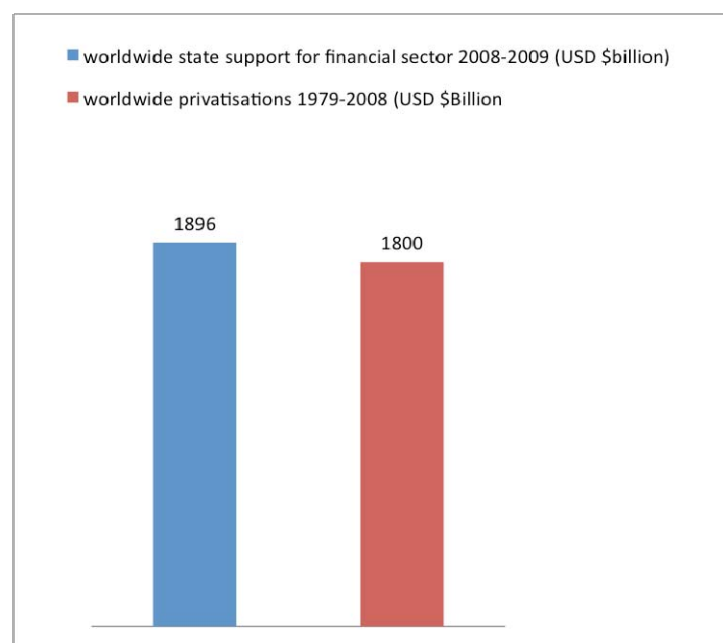
	Total public sector support for banks etc.		... of which 'upfront' govt spending/borrowing	
	% of GDP	(USD \$bn)	% of GDP	(USD \$bn)
Advanced G20 economies	29.6	10,246	5.5	1,849
Emerging G20 economies	14.2	1,672	0.4	47
Total G20	23.8	11,918	3.6	1,896
<i>Of which:</i>				
United Kingdom	81.8	1,180	20.0	289
United States	25.8	3,700	6.7	960

Source: IMF 2009 and PSIRU calculations (IMF 2009B)

**Box B. Bank bailout bigger than all the privatizations in the world**

The upfront support to bail out the banks already totals about USD \$1,900 billion, without taking account of longer-term costs. This is equivalent to the total value of all the privatizations carried out worldwide in the last 30 years, which raised about USD \$1,800 billion (Nellis, 2006). In less than one year, the bailout of the financial sector has completely reversed this process. The public sector has injected more capital into the private sector in one year than the private sector has paid for state enterprises in the last 30 years.

**Chart D. Reversing 30 years of privatization**



Sources: see note<sup>3</sup>.

<sup>3</sup> (A) upfront support: IMF, see table 3, above; (B) privatization revenues: based on Megginson (2005), Nellis (2006), Bortolotti and Pinotti (2008) and Privatization Barometer 2008. This estimate is at the upper end of estimates of global privatization revenue. (A) \$1 trillion (\$1,000 billion) for OECD countries, as estimated by Bortolotti and Pinotti 2008 'Delayed Privatization'

[http://www.bancaditalia.it/pubblicazioni/econo/temidi/td08/td663\\_08/en\\_td663/en\\_tema\\_663.pdf](http://www.bancaditalia.it/pubblicazioni/econo/temidi/td08/td663_08/en_td663/en_tema_663.pdf)

## Saving capitalism: the economic stimulus

To counter the recession, governments all over the world increased their deficits.

The biggest effect has not come from special additional government spending, but from the normal operation of taxation and public spending systems as ‘automatic stabilisers’. Government deficits automatically increase in recessions, because taxes fall and spending on benefits rises. Combined, this partially protects people from the fall in their incomes, and acts as an economic stimulus which partly offsets the effects of recession.

The IMF and others assume that unemployment benefits are the key part of government spending which increase automatically in a recession. But other public spending, especially on healthcare and the elderly, also rises in response to recession, and so “automatic stabilization through all elements of social expenditure is about 3.5 times larger than the part coming from unemployment compensation alone.” Social spending as a whole absorbs about 16% of an economic shock, on average, and the protection is strongest where social spending is highest: in Sweden, about 43% of a shock is absorbed by social spending (Darby and Melitz 2008).

This has two important implications. Firstly, the current attempts to cut public spending on the elderly and on healthcare risk undermining an important element in economic stability. Secondly, governments (and the EU and the IMF), which only take account of unemployment benefit, are not taking proper account of the automatic effect of recessions on this spending, and so the limits on government deficits are being applied too strictly. European Commission reports: “... downplay the automatic forces influencing the budget ... the neglect of the cyclical implications of pensions, health expenditure and disability pay, especially in evaluating alternative reform packages, could be storing up problems for the control of budgets in the future” (Darby and Melitz 2008).

The stimulus packages contained a mixture of tax cuts and spending increases. The tax cuts reflect political preferences of the right, but, as data from the USA later demonstrated, tax cuts are a very poor way of stimulating demand in a recession, because people save rather than spend a large proportion. Only about 30% of the tax rebates given by the Bush government in May 2008 was actually spent: all types of households used two-thirds or more of the money to save or to repay debts.

Using the same amount of money to increase public spending has a much larger effect on demand and employment. For this reason, a large proportion of the stimulus packages consisted of increases in infrastructure spending. According to the World Bank in March 2009: “announced infrastructure spending for 2009 represents on average 64 percent of the total stimulus in emerging market economies and 22 percent of the total stimulus in high income economies” (Saghir 2009).

The crisis has done less damage to southern economies than it has to northern countries. Asian economies rebounded rapidly, led by China and India, which are now growing at around 10% per annum: Brazil is growing at a similar rate. Other countries in the south have also experienced less of a downturn, and are now (in 2010) expected to grow strongly.

Thus Africa did not even experience a contraction in 2009, when GDP growth overall was 2%. The IMF forecasts that in Africa there will be economic growth of 4.7% in 2010, and growth of 6% in 2011. This is partly due to the use of large fiscal stimulus packages: public spending plans in African countries were increased by 5% of GDP above the average level of the 2003–2007 period, including higher levels of spending on infrastructure, health and education. The IMF commented: “stimulus packages have been managed successfully without major impact on debt, and have increased the scale of public investment in infrastructure and the credibility of public spending on infrastructure”. The World Bank agrees: “The need to unwind stimulus measures among developing countries is generally less pressing [than in Europe]; because both fiscal deficits and debt-to-GDP ratios are much lower” (IMF 2010).

Some African governments are also confidently planning to finance their deficits by borrowing, including issuing bonds. Both Kenya and Tanzania plan to issue €500million bonds in Euros, Uganda plans a similar issue aimed at national rather than international investors. This policy is supported by a longer-term trend since 2000 for developing country governments being able to borrow money more cheaply, compared with rich countries. According to an IMF study, the spreads and effective interest rates paid by these governments have fallen in the last decade, so the cost of borrowing is lower (IMF 2010).

The OECD expects public spending as a percentage of GDP to increase across Africa as a whole until 2011, before falling back, but still to a level above that of 2008 (see table below). Because all international agencies forecast continuing GDP growth of over 4% per annum for Africa, the forecast still implies that actual public spending levels will be significantly higher – about 10% higher in 2011 than in 2008, in real terms.

**Table 2. Public spending as % of GDP in Africa, 2008–2011**

	2008	2009	2010	2011
Africa	30	32.8	33	31.6

(Source: OECD 2010)

### **Box C. India: public spending for growth**

The government of India’s budget for 2009–10, announced on 6th July 2009, included a strengthened stimulus to counter the recession, as well as longer-term growth of public spending as a platform for development. The budget increased the government deficit to 6.8% of GDP, to boost the economy; planned to raise more money from direct taxes; increased infrastructure investment and other public spending, including direct employment programmes; and committed to continued public ownership of banks and financial institutions. The government expected the budget to contribute to growth of 9% in 2010.

In 2008–09 the deficit had already risen from 2.7% to 6.2% of GDP, after the government introduced a package of spending increases and tax cuts to stimulate the economy. The government has promised to reduce this in the medium term but while “... uncertainties relating to the revival of the global economy remain ... we have to continue our efforts to provide further stimulus to the economy” (India Budget speech. 2009). The government is confident it can borrow enough to finance this deficit: half of India’s savings in the banking system “is channelled to the government through mandatory lending or through treasury bill sales” (India Budget speech. 2009).

Central government revenue is now 11% of GDP, with over 50% coming from direct taxes, which is more progressive. The government plans to continue increasing the proportion of direct taxes, and refused to reduce corporate taxes. It is also continuing to improve tax administration, the importance of which was recognized by the finance minister: “Our tax collectors are like honey bees collecting nectar from the flowers without disturbing them, but spreading their pollen so that all flowers can thrive and bear fruit” (India Budget speech. 2009).

The finance for urban infrastructure was increased by 87% over the previous budget, and a new fund was created, intended to make the country slum-free in five years. This not a short-term policy: the aim is to continually increase investment in infrastructure to reach more than 9% of GDP per year by 2014 (India Budget speech. 2009). India is also using public finance to bail out existing public–private partnerships (PPPs) which are now unable to find private finance. A new public sector institution, the India Infrastructure Finance Company Limited (IIFCL), will refinance 60% of commercial bank loans to infrastructure PPPs over the next year and a half (India Budget speech. 2009).

India introduced a National Rural Employment Guarantee Scheme (NREGS) in 2006, which has provided employment opportunities for over 40 million households in 2008–09 and provided a significant boost to the rural economy. The minimum wage guaranteed under this scheme is being increased to 100 Rupees per day, and the overall budget is 8% higher than actual spending in 2008–09 (*The Hindu* 2009).

The budget also included a strong long-term commitment to continued full public ownership of the banking sector: “Never before has Indira Gandhi’s bold decision to nationalize our banking system exactly 40 years ago – on 14th of July, 1969 – appeared as wise and visionary as it has over the past few months ... public sector enterprises such as banks and insurance companies will remain in the public sector and will be given all support, including capital infusion, to grow and remain competitive.” The government left open the possibility of future partial privatizations of other state-owned companies, however (India Budget speech. 2009).

## Rescuing the IMF

The IMF itself has used the crisis to re-establish itself as an important international institution. By 2008 the international role of the IMF was much diminished. Many countries in Latin America and Asia had deliberately accelerated repayment of IMF loans in order to reduce their vulnerability to policy conditions that were seen as socially and economically damaging (Hall 2007). Asian countries have set up separate arrangements, known as the Chiang Mai initiative, to help avoid being forced to use the IMF. Indonesia, for example, can borrow \$28 billion from Japan to support its currency, and \$17 billion from China for trade finance. A number of Latin American countries – Argentina, Venezuela, Bolivia, Brazil, Ecuador and possibly Paraguay – had previously agreed to create a ‘Bank of the South’, which is explicitly seen as an alternative to the World Bank and IMF in the context of South America (Global Insight 2007).

One effect of this was to cut the IMF's income from interest on its loans. In 2008 it was agreed that the IMF could sell part of its gold reserves, and invest the proceeds to provide it with a secure income, which would support the institution regardless of whether it made any loans or not (IMF 2008).

The economic crisis was then used to justify a massive increase in the IMF's finances. The richest countries, meeting at the G20 in April, agreed to triple the resources of the IMF by extending 'New Arrangements to Borrow' (NAB) worth over USD \$500 billion – almost 1% of global GDP (IMF 2009c). These are large amounts of public money: USD \$500billion is ten times as much as the USA government spent to buy General Motors.

The IMF is also borrowing money by issuing bonds, because China, India, Brazil, Russia and other 'emerging economies' would not give the IMF permanent extra resources until it is reformed and made more democratic. The IMF is not subject to stringent limits on these new borrowings. The justification for borrowing is extremely general: "Borrowing has been considered appropriate at times when the IMF's current or prospective liquidity was regarded as inadequate". The IMF board was explicitly asked, in July 2009, to agree that: "it would not be appropriate to establish a new limit on borrowing by the Fund in current circumstances". There is no limit on the amount it can borrow through issuing bonds. And the future 'exit route' for repaying all this debt is indefinitely postponed: "Consideration will need to be given in future to the policies governing repayment of borrowed resources. ... However, it is premature to consider the precise modalities of early repayments" (IMF 2009).

**Table 3. The cost of supporting the IMF**

	(USD \$bn)	% of GDP
Advanced economies	400	1.0
Emerging economies	100	0.9

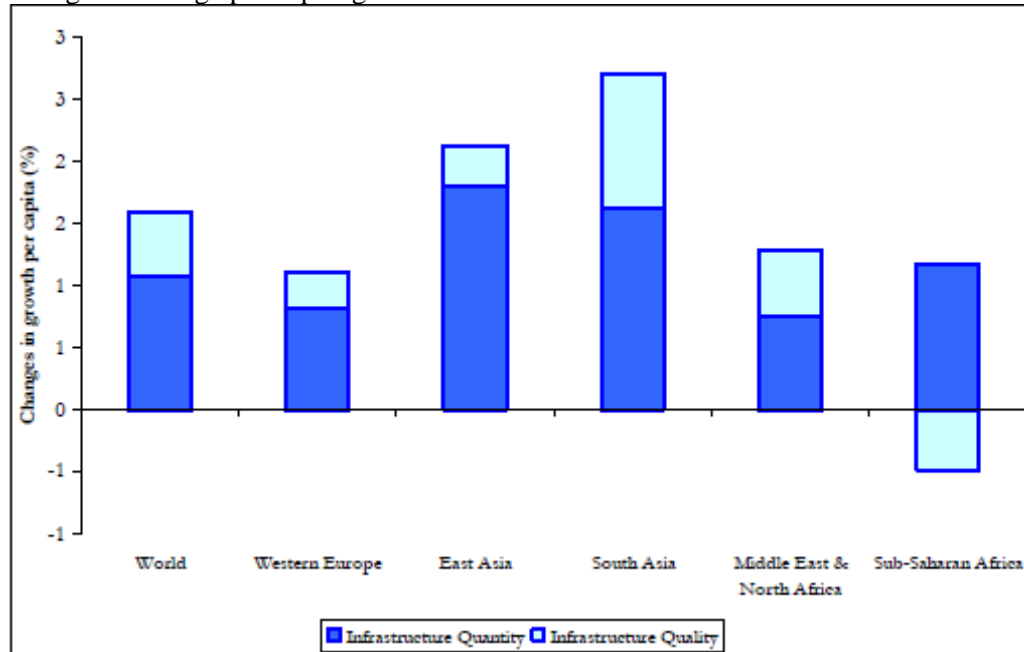
Source: IMF 2009 and PSIRU calculations

## Infrastructure

Investment in electricity, water and sanitation, roads, rail, and telecoms has played a major role in the growth of high-income countries, and is equally crucial in developing countries. Much of the economic growth and productivity of the USA in its 'golden period' in the mid-20th century was due to the growth in infrastructure, the great majority of which was publicly financed. The same effect can also be seen on every continent, including North America, Latin America, Europe, Africa and Asia (Aschauer 1989).

### Chart E. Change in growth due to infrastructure development

Change in average per capita growth between 1991–1995 and 2001–2005



Source: (Calderon and Serven 2008)

The importance of public investment in infrastructure was demonstrated by the damaging effects of the structural adjustment programmes of the IMF – which insisted on cutbacks in public spending – caused damaging falls in infrastructure investment in Latin America. At the same time the World Bank and IMF were requiring privatization of key infrastructure services such as water and electricity, but the private sector failed to invest. As a result:

... in many countries the pressures of fiscal consolidation have led to a compression of public infrastructure spending, which has not been offset by the increase in private sector participation, thus resulting in an insufficient provision of infrastructure services with potentially major adverse effects on growth and inequality (Calderon and Luis 2004).

In Latin America, government spending on human and physical infrastructure in the 1980s and 1990s, “dropped precipitously” during the period when the IMF imposed its structural adjustment policies, and led to a fall in economic growth: “... a major portion of the per-capita output gap that opened between Latin America and East Asia over the 1980s and 1990s can be traced to the slowdown in Latin America’s infrastructure accumulation in those years” (Calderon and Luis 2004).

Most South American countries have now deliberately paid off their loans from the IMF, to enable them to pursue more rational economic policies, in which public spending on infrastructure has played a key role. In 2007 Brazil launched a four-year programme for economic growth, (the Programa de Aceleração do Crescimento), based on the investment of USD \$236 billion in roads, electricity, water, sanitation and housing. The programme is an explicit attempt to correct the previous under-investment: “In recent years, public investment has declined markedly ... capital investment has totalled less than 3% of GDP, well below the

commitments being made by more rapidly growing countries in Asia.” This investment in infrastructure is seen as a crucial instrument for reducing regional and social inequalities (Wheatley and Lapper 2007).

Public finance is central to these investments. In Brazil, this includes using tax revenues from central and regional governments, the operating surplus of state-owned utilities, and national development funds, pension funds and savings funds. The sanitation investment programme, which aims for a great increase in the proportions of households connected to sewage systems, is half financed by federal and regional state finance, and half by loan finance from the savings funds and pension funds. The “Luz para Todos” (Light for All) policy for connecting more people to electricity supply is overwhelmingly financed from federal and regional state funds, and is expected to have connected an extra 10 million people by 2010.

**Table 4. Financing electricity connections and water and sanitation, Brazil 2007–2011**

	USD \$billion
Federal government	8.6
Regional state and municipal budgets and operating surpluses	4.8
Workers’ savings fund (FGTS) and federal workers’ protection fund (FAT)	9.4
<b>TOTAL</b>	<b>22.8</b>

Sources: *Latin America News Digest* January 23, 2007; ‘Cities ministry pre-selects 669 sanitation projects for PAC funds’ *Business News Americas* April 27, 2007.

In Africa, by contrast, the level of infrastructure spending remains inadequate, for exactly the same reasons as in Latin America in previous decades: “Spending has actually been on a declining trend in many countries, partly as a result of the disproportionate toll that the fiscal adjustment of the 1990s took on public infrastructure spending, and also reflecting the fact that private sector participation has failed to live up to expectations”. A 2010 report on infrastructure investment in Africa found that the contribution of the private sector has been close to zero in water, electricity and transport: there has only been some private investment in telecoms. Despite this, African governments have been investing more than previously thought, and: “the public sector remains the dominant source of finance for water, energy, and transport in all but the fragile states”. If Africa caught up with the infrastructure investment levels of other world regions, growth rates would increase by 1–2% (Calderón and Servén 2008).

The principal mechanism for financing infrastructure development, worldwide, is still through government and the public sector.

According to a global survey by Siemens in 2007, public–private partnerships (PPPs) only account for about 4% of all public sector investment: and public sector loan financing is expected to remain the main financing instrument throughout Europe. Private investors cannot be sure of getting a return high enough, despite the great benefits for the economy and society as a whole, as was noted in the 19th century: “A country, e.g. the United States, may feel the need for railways in connection with production; nevertheless the direct advantage arising from them for production may be too small for the investment to appear as anything but *sunk capital*. Then capital shifts the burden on to the shoulders of the state”. The same factor remains visible in telecoms in Europe, where private network operators are also reluctant to make sufficient

investment in the fibre-optic networks which are crucial to greater use of the internet. So governments are having to provide public finance: in Portugal, for example, the state has provided 85% of the financing for a €1 billion investment programme. The 2020 strategy paper of the EU also demands more public finance, calling on governments: “To draw up operational high speed internet strategies, and target public funding, including structural funds, on areas not fully served by private investments” (Siemens 2007).

Even in the USA, where the role of the state is relatively small, the great majority of investments in transport, education, and environment are public – and even 35% of utility investment is public sector, reflecting the dominant municipal role in the sector despite the high levels of private operation in electricity and gas; only in healthcare is the public proportion low.

One victim of the crisis has been the credibility of the orthodox neo-liberal economic wisdom, especially in the global south. The failure of this model contrasts with the positive social and economic developments in Latin America and India, based on social democratic policies with a strong role for the state, as well as the important role of public infrastructure investment in China’s economic growth. So there is a marked shift in the terms of debate. Neoliberal assumptions are no longer regarded as sacrosanct.

One remarkable example of this is a speech in 2009 by the chief economist at the African Development Bank, which argued for a stronger developmental role for the state, with public infrastructure investment at its core:

The crisis should be grasped as a turning point in the development path of developing countries, particularly here in Africa. In order to overcome the continent’s structural constraints and reduce its external dependence, it is necessary to reconsider the role of the state. The market only works through incremental changes and small steps. However, developing countries need to stimulate investments by socializing risk, in order to achieve long-term structural transformation. The market has not been and will not be able to carry out these changes alone.

The critical question now is not simply how developing countries can cope with the short-term immediate impact of the crisis. More important, the question is how can they emerge from the crisis in a stronger position? What policies should they be crafting now for the post-crisis era? ... Macroeconomic policies across the developing world during the last several decades have been strongly influenced by the recommendations of the international finance institutions and bilateral aid donors who, in turn, were heavily influenced by the neoclassical school ... As argued by several scholars, the reforms based on this approach have largely failed to develop the private sector as the driving force for development...

Public investment – especially but not exclusively in traditional infrastructure such as transport, irrigation and energy networks –has a key role to play in driving the development process. I believe that here in Africa, when the state just stands aside waiting for individual action and non-state forces such as entrepreneurship, comparative advantage, and cross-border capital inflows to bring development or transition, the result

can be very negative, and in turn produce the sort of stagnation that can lock countries into their unfavorable positions in the world economy (Kasekende 2009).

## Public spending and employment

Public spending supports employment in three main ways:

- direct employment of public service workers;
- indirect employment of workers, by contractors supplying outsourced goods and services; and
- employment of workers on infrastructure projects.

The table below shows estimates of the proportion of jobs supported by public spending, including the additional jobs supported by the ‘multiplier effect’ of consumer spending. These are rough estimates of a global average, showing that:

- Public spending supports 40% of all jobs: 15% as public employees, but 25% in the private sector.
- Including public service utilities, public spending and public services support 50% of the jobs in the economy – twice as many in the private sector as in the public sector.

**Table 5. Jobs supported by public spending and public services (as % of all employees)**

*PSIRU estimates of global average*

Public spending by category	Jobs supported	Multiplier	Additional multiplier effect	Total	... of which	
	As % of total employees		As % of total employees		As % of total employees	As % of total employees
					Public employees	Private sector employees
Direct public employees	15	1.6	9	24	15	9
Indirect jobs: procurement	6	2	6	12	0	12
Indirect jobs: construction	2	1.9	2	4	0	4
<b>Total public spending</b>	<b>23</b>		<b>17</b>	<b>40</b>	<b>15</b>	<b>25</b>
Public utilities (mixed)	4	2.5	6	10	2	8
<b>Total public services</b>	<b>27</b>		<b>23</b>	<b>50</b>	<b>17</b>	<b>33</b>

Source: OECD, CEEP, BERR, Scotstat, PSIRU calculations.

There are other employment effects from public spending, which create, protect or improve jobs outside the public sector. Governments use various subsidies to provide or support employment, either by subsidising private companies or by providing employment guarantees to workers. Government procurement has been widely used to require ‘fair wages’ from private contractors, and also as an instrument to eliminate gender and ethnic discrimination and disadvantage. Both of these are considered further below.

In addition, spending on social security benefits creates extra demand, because it gives greater spending power to people who would otherwise have very low incomes: this extra spending means extra demand and extra jobs.

## Direct and indirect employment

Governments employ workers directly to provide public services and administer social security programs, known as public employees. Counting the number of public employees is not straightforward. The numbers vary according to the definitions used of ‘government’ and the ‘public sector’, and there are variations between countries, depending on the overall level of public spending, the structure of the public sector, the extent of outsourcing, and the size of the formal economy.

In 1998 the International Labour Organization (ILO) estimated that the public sector accounted for about 21% of employees in high-income countries, and about 23%, in developing countries, including employees in state-owned enterprises. Restricted to just employees of central and local government and health authorities, these figures would be about 17% and 21%. These figures suggest that public employment is proportionately almost as significant in developing countries as in high-income countries, because formal employment is a smaller part of the economy as a whole.

In the EU, a recent analysis found that the providers of ‘services of general interest’ (public services and utilities such as water, electricity, post, telecom and public transport) employed more than 64 million persons in 2009, representing 30% of the total number of employees in the EU. The great majority of these were in services and sectors which are overwhelmingly carried out by public authorities: healthcare (with nearly 10% of all employees); and education and public administration (each about 7% of all employees). So in the EU, government employees represent about 24% of all employees – nearly 1 in 4 jobs – with another 6% in private or public jobs in other services of general interest.

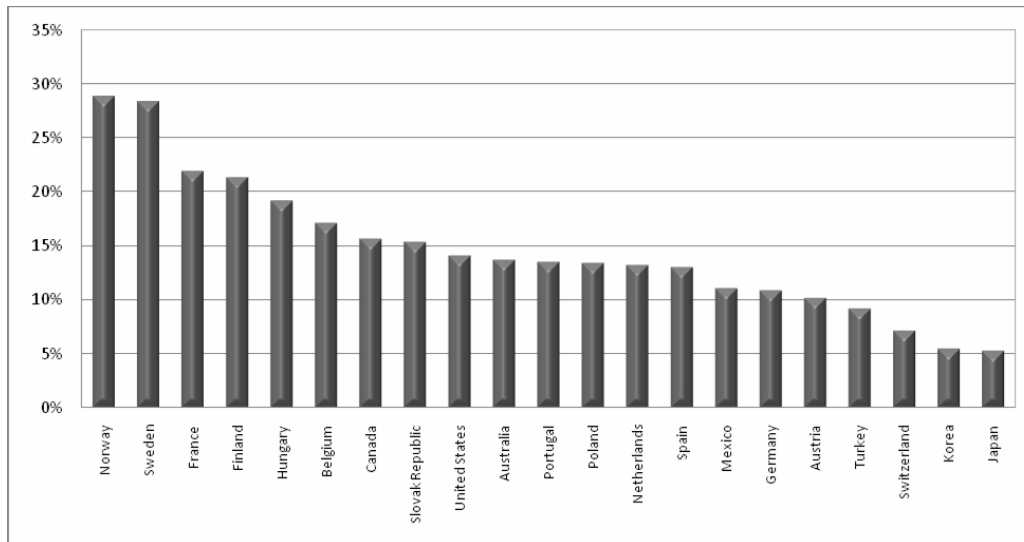
**Table 6. Employment in services of general interest in EU, 2009**

	<b>As % of total employment</b>
Health	9.6
Public administration	7.2
Education	7.0
Other	6.4
Total	30.1
Total (numbers)	64,720,000

Source: CEEP 2010

A recent OECD survey found a wide range across countries. Expressed as a percentage of employees, the median is about 15%. It is lower than the average for EU countries, because it includes countries such as Korea and Japan, where levels of public spending and employment are relatively low, and does not include all EU countries. It also uses narrow definitions of ‘government’ (OECD 2008).

**Chart F. Employment in general government as % of total labour force, 2005**



Source: OECD 2008

Other public spending is used to buy goods and services from contractors. On average, in OECD countries, governments spend slightly less on this than on direct employment, amounting to about one-sixth of GDP – almost as much as on paying government employees. This spending supports jobs in the private sector. Estimates from the UK suggest that the number of jobs supported by this spending is under half the number supported by the same level of spending on direct jobs, because some of it goes on contractors’ materials, and their profit. This implies that such spending supports a further 8% of all employment (Mato 2008).

Public investment on average normally represents a further 3% of GDP in OECD countries, supporting about 2% of all jobs, but can be much higher in developing countries. This kind of spending happens continuously, as a way of creating public assets and creating jobs. In Nigeria, for example, the state of Borno has undertaken a large housing programme, using government funds: it provides not only homes but also employment in building and maintaining the houses (Mato 2008).

For both direct and indirect jobs, there is a further ‘multiplier’ effect, because workers in these jobs then spend their pay on other goods and services, which creates extra demand for goods and so creates further jobs. So every job created by public spending is ‘multiplied’ by this effect. Multipliers can vary between sectors and countries, and a set of official multipliers from the UK is used in the calculations for table 9 above.

### **‘Fair wages’ clauses and social procurement: international history and context**

‘Fair wages’ policies have been applied to public sector contractors for over a century, in order to use the economic activity of public authorities to “create avenues of just and secure employment”. In France, the USA, the UK and other countries, ‘fair wages’ legislation and clauses were introduced, specifying minimum conditions of work and/or the need to recognize rates agreed with trade unions. In 1892, the newly elected London County Council, for example, used clauses insisting on an eight-hour working day, and trade union rates (Pennybacker 1995).

In the 20th century procurement developed as a key policy instrument for supporting the employment of disabled workers, and for eliminating racial, gender or religious discrimination. Many countries introduced clauses requiring contractors to apply equal opportunity policies. In the USA, for example, the civil rights movement led to the use of procurement preferences as part of 'affirmative action' policies to advance the economic status of groups who had suffered discrimination. Similar legislation has since been implemented in South Africa since the ending of apartheid. Procurement has also been used as an instrument of international solidarity, for example by excluding companies who were trading with the apartheid regime in South Africa. The EU itself included the principle of equal pay in the original Treaty of Rome, and procurement clauses were a key mechanism for enforcing this principle, through: "the adoption of linkage between procurement and non-discrimination requirements by several *Länder* (states) in Germany, several local authorities in the United Kingdom, and many local authorities in the Netherlands" (McCrudden 2004).

The ILO adopted the principle of fair wages clauses in 1949, in Convention 94, which requires states to include clauses in their public contracts ensuring that wages (including allowances), hours of work, and other conditions of labour were not less favourable than those established for work of the same character in the trade or industry in the district where the work is carried out (ILO 1949). The ILO also adopted the use of procurement clauses for pursuing equality in Recommendation 111, which advocates that commitment to equality principles should be a condition of eligibility for public contracts. The ILO has also encouraged the use of social clauses as a mechanism for enforcing its core labour standards, especially to protect construction workers, and to improve conditions of employment in developing countries. An ILO report published in 2008 notes that the increased use of outsourcing – including through PPPs – and the use of labour-only subcontracting, make the problems even more acute now than when ILO 94 was first agreed (McCrudden 2004).

The development of these policies has often been resisted by commercial interests and right-wing political parties. The Thatcher government in the UK, for example, denounced the ILO convention, repealed the UK's fair wages law, and finally restricted the right of municipalities to apply social criteria. This reflected constant and successful lobbying by private companies, who wanted to undercut the pay and conditions agreed in the public sector. Employers' organizations still attempt to resist fair wages clauses: the Confederation of Norwegian Enterprises argued against Norway's ratification of the ILO convention in 2008, and employers in Latvia argued against a procurement law which favours companies with good social insurance contributions on behalf of their employees (Evans and Lewis 1988).

Despite these changes in international climate, fair wages clauses are still being used and introduced by countries as an instrument of social policy.

- In countries of central and eastern Europe the growth of illegal employment without social insurance or recognized pay and conditions is seen as a major problem by governments: Hungary, Slovakia and Latvia have all introduced for the first time new procurement laws which place conditions on the employment practices of companies tendering for public contracts.

- Public authorities in the USA continue to operate strong equality programs favouring minority- or women-owned suppliers (Brammer and Walker 2007).
- In Belgium new social clauses were introduced in the Brussels region in 1999.
- An international survey of procurement policies in 2007 found that public authorities are much more oriented towards social aspects of sustainable procurement – purchasing from small/local companies, and worker safety – rather than environmental issues (whereas private companies tend to focus only on environmental issues when presenting their corporate social responsibility statements) (Walker 2007).

#### **Box D. Greater London Authority responsible procurement policy**

The Greater London Authority (GLA) spends over GBP £3billion (USD \$4.8billion) each year on procuring supplies, works and services. It has adopted a comprehensive social procurement policy which includes standard contract conditions on employment issues. The policy is applied not only through contract conditions but through a series of meetings with suppliers and community organizations to ensure the policies are understood and supported.

The GLA's responsible procurement policy consists of seven themes:

- encouraging a diverse base of suppliers;
- promoting fair employment practices;
- promoting workforce welfare;
- addressing strategic labour needs and enabling training;
- community benefits;
- ethical sourcing practices; and
- promoting greater environmental sustainability.

The GLA sets a 'London Living Wage' (LLW), significantly above the national minimum wage. In re-tendering its cleaning and catering contracts in 2006, bidders were required to indicate whether they would accept a LLW clause as part of the contract, including ensuring that other employment conditions were not reduced as a result of paying a living wage. It estimates that over 400 workers gained from implementation of the LLW in 2007.

The GLA applies 'supplier diversity requirements' on major contracts, such as the East London rail redevelopment, to ensure that smaller suppliers led by minority ethnic groups, by women and disabled people have received a significant proportion of subcontracts. It also monitors the supply chains of companies, for example suppliers of uniforms, and is piloting the use of a Suppliers Ethical Data Exchange (Sedex) – a system for companies to report labour conditions in all their suppliers factories.

[www.london.gov.uk/rp](http://www.london.gov.uk/rp)

#### **Employment subsidies and employment guarantee schemes**

Public spending is often used to subsidize companies as a way of protecting employment levels. One general method which has been used during the crisis has been through short-time working schemes, which compensate employees who agree to maintain employment levels by reducing

working time : “usually relying on state-subsidised schemes that compensate employees for part of their loss of earnings resulting from reduced working hours.” More specific subsidies are also used by governments, justified by employment protection, for example through the ‘scrappage’ schemes to encourage purchases of new cars and so protect jobs in the motor industry (EIRO 2009).

‘Employment guarantee’ schemes work by providing direct payments to workers themselves who would otherwise be unemployed. This has been used in a number of countries, usually involving employment on public works or infrastructure. After the economic crisis of 2000, Argentina introduced a scheme guaranteeing 20 hours work a week to a member of households with children under 18. They not only provide employment and income to eradicate poverty, they also have a multiplier effect on local economies by enabling greater consumer spending, and by improving local infrastructure.

#### **Box E. India: the National Rural Employment Guarantee**

The biggest scheme is in India, known as the National Rural Employment Guarantee (NREG). An employment guarantee scheme had existed in the state of Maharashtra for many years, and in 2005, against the background of widespread rural poverty, the government of India introduced a national scheme. This guarantees 100 days of work to one member of a rural household, on works decided locally as being of value to the community. It thus creates rights which strengthen the bargaining position of rural workers, and is demand driven. The scheme includes requirements for basic employment conditions, including a basic hourly minimum rate, a 7-hour day, a weekly day off, equal wages for equal work, medical and crèche facilities.

In 2009–2010, the scheme provided work to over 52 million people, 48% of whom were women. It cost about 389 billion rupees in 2009/10 (about USD \$8.5 billion). Because of the level of the minimum wage set by the scheme, and the scheme itself, there was a general affect on rural household incomes, which increased by 50% in 2 years (Khanna 2010).

### **General support for industry**

Significant parts of public services support other economic activity by the private sector. These include the provision of a legal system, courts and police, which both protect property rights and provide ways of enforcing contracts. The modern company itself is a legal entity dependent on privileges given by the state, including ‘limited liability’ which allows companies to fail and go bankrupt without the individuals running them being liable to any of the firm’s creditors.

Virtually every sector in modern economies relies on significant economic support from the state. In some sectors, in many countries, this takes the form of public ownership – for example of public transport, electricity and water – and, in many more countries now, of banks and financial institutions. Many sectors depend on public spending for contracts for goods and services, which represents about 16% of GDP in high-income countries. This includes many firms in the production sector, such as arms manufacturers or pharmaceutical companies, both of which rely principally on government orders. Some firms in the services sector also benefit, as a result of outsourcing policies, for example in auditing, IT, or cleaning services.

There is also a set of sectors where governments provide guarantees, or subsidies, or finance on favourable terms, without which companies would be less likely to function. One example is the public works businesses of the construction industry which are linked to PPPs that, in effect depend on long-term guarantees of government payments if they are to be financeable.

Governments and development banks lend money to companies at rates which they could not obtain commercially. Implicit and explicit guarantees were given to customers of European banks during the crisis, which make every bank a 'safe' place to hold an account. Subsidies are provided for rail and bus fares, housing rents, and green investments for energy efficiency. Systems of regulation, for example in electricity, favour companies by providing them with much greater certainty about prices and revenues, which reduce risks.

Research and development, too, is government funded to a greater or lesser extent in many sectors, either through universities, or funds to companies, or directly through state-owned operators. Even within liberalized electricity markets, for example, it is only the state-owned companies which invest in R&D:

The last two decades have witnessed a staggering decline of R&D investment in the fields of energy and electricity ... The drop of research expenditures was particularly strong among the private or newly privatised companies, while those that remained under public control did not reduce R&D efforts (Sterlacchini 2010).

#### **Box F. General Motors and public finance**

The case of General Motors (GM) shows that the benefits of public ownership, and the problems of weak public services, affect large manufacturing companies as well as the general public. GM was the largest manufacturing company in the world, and still employs nearly 240,000 workers, but it had to be rescued from bankruptcy in 2009 and is now owned by the American and Canadian governments, and a fund owned and run by a trade union. In late 2010 GM sold about a fifth of its shares on the stock exchange.

GM was rescued by large amounts of public finance. The American and Canadian governments gave \$61 billion in public finance to GM to help it avoid bankruptcy. Most of this was converted into shares, so that in July 2009 GM became 61% owned by the USA government, and 11% owned by the Canadian government.

GM also asked European governments to give the company up to €3.3 billion in loan guarantees to help finance the restructuring of its Opel division. In June 2010 the company withdrew the requests and acknowledged that it did not need this state aid.

Nearly 20% of shares in GM are controlled by the main union, the United Auto Workers (UAW). The ultimate reason for this is that the USA does not have a good comprehensive public health service, so that healthcare benefits are an important part of employment contracts, and a significant extra cost to employers. The union shares are owned by a healthcare trust fund, VEBA, which was created by the union to take over responsibility for financing the healthcare for retired employees of GM (and other car makers including Chrysler and Ford). GM gave VEBA 17.5% of its shares and over \$18 billion to take over these liabilities; Chrysler and Ford have paid another \$17.6 billion (General Motors 2010).

The social function of public spending can be considered as allowing greater development of social and individual capabilities. Healthy and educated people have a much greater potential for developing their own capacities, which is central to social development, as argued by Amartya Sen, the Indian philosopher and economist, and winner of the Nobel Prize for Economic Science (Sen 1999). This section of the report looks at how public spending does that in three ways:

- through increasing equality, so that the benefits of economic resources are far more equally shared;
- through greater effectiveness at providing a service of value to society, such as healthcare; and
- through protection of the environment and development of renewable energy.

## Public spending and equality

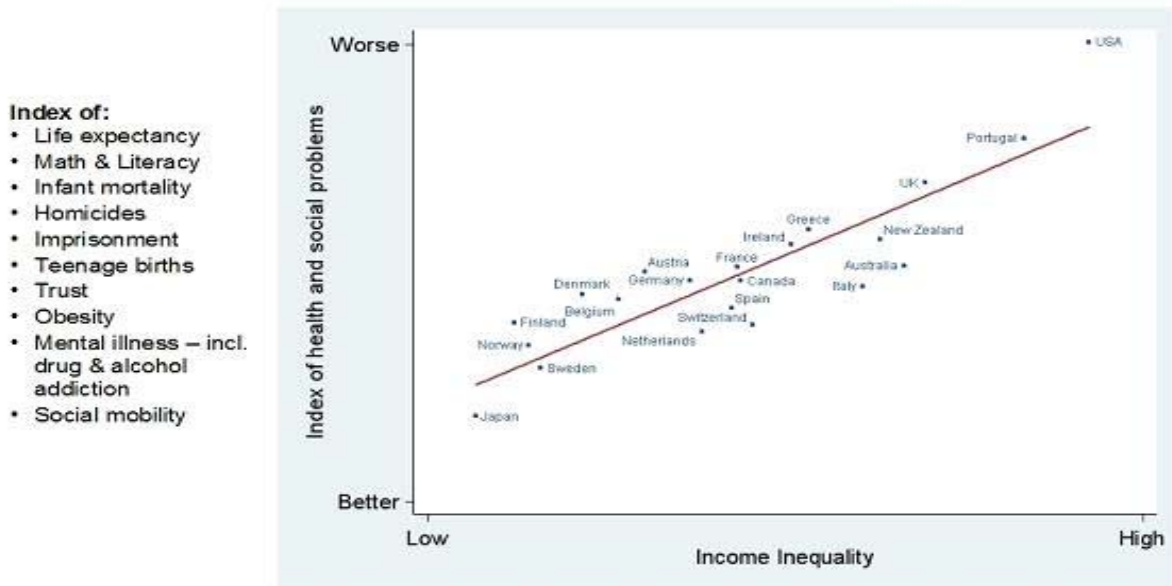
### Public services and equality

Greater equality is better for everyone. A recent book, *The Spirit Level*, uses international data to show that more equal distributions of income lead to a better life for everyone. The chart below shows that the countries with the most equal distribution of income also have better social outcomes for everybody - life expectancy is higher, infant mortality is lower, there are fewer murders, less mental illness, less obesity, and less people in prison (Wilkinson and Pickett 2009).

But markets create very unequal distributions of income, so that the top 10% have very high incomes, while the poorest have very little. In order to get the benefits of greater equality, there have to be mechanisms based on solidarity, to enforce a fairer distribution of resources. Together with trade union organisation, which can raise incomes based on wages as opposed to income based on profits, public spending is the great mechanism for achieving greater equality.

**Chart G. Health and social problems are worse in more unequal countries**

### Health and Social Problems are Worse in More Unequal Countries



Source: Wilkinson & Pickett, *The Spirit Level* (2009)

[www.equalitytrust.org.uk](http://www.equalitytrust.org.uk) Equality Trust

Public spending plays an obvious role in the redistribution of income. Taxes are paid by people according to their income or spending, and benefits are paid to people who are unemployed or retired or caring for children. But public spending on services also has a very powerful redistributive effect. In particular, public health services and public education have a similar impact to the social security system. This is clear in high-income countries, where public services are largest. A study of 7 EU countries found that the value of public services is about one-third of total disposable income, and far more equally distributed. The same effect is also important in developing countries, where the direct provision of public services is the greatest form of equalization, and social security benefits have a relatively smaller role (Osberg, Smeeding and Schwabish 2003).

The table below presents figures showing how this works in the UK. The distribution of 'original' income – before any state intervention – is highly unequal, with the average income of the top 20% about 15 times greater than that of the poorest 20% of households. This is what the market delivers. The table then adds incomes from benefits, which go mainly to poorer households – this improves equality significantly, more than doubling the income of the poorest 20%, so that the top-to-bottom ratio falls to 7 times. This is what is commonly expected.

The next stages are more surprising. The effect of taxation is partly progressive, because direct taxes on income take most from the top groups. But that is offset by the effect of the indirect taxes, such as VAT, which are actually regressive – they take a much bigger proportion of the income of the poorest. And it is these regressive indirect taxes that have grown most in recent years, especially in developing countries, encouraged by the IMF, World Bank and others. The net result is that after all taxes have been paid, the distribution of income is almost unchanged – the top group still has about seven times as much as the poorest group. So overall, the tax system in the UK is not progressive.

The final step quantifies the benefit of public services, most importantly, education and health. The value is calculated according to how much each group uses the service, and poorer households get greater benefit because they include more children and more people vulnerable to ill-health, such as pensioners (although the top groups gain most from transport subsidies). The value of these services to the poorest group is almost as great as all their after-tax cash income from pay and benefits put together. The effect on inequality is as dramatic as the effect of benefits – the top-to-bottom ratio falls from 7 to 4.

This analysis shows clearly that the great equalising force of the system comes from public spending, not from the taxation system and that public services are just as important a mechanism of equality as social security benefits.

**Table 7. Redistribution of income through taxes, benefits and public services: UK, 2008/09**

(£ per year)	Bottom	2nd	3rd	4th	Top	All households	Ratio Top/Bottom quintile
Original income	4 970	12 020	23 305	38 321	73 810	30 485	15
<i>plus</i> cash benefits	6 431	7 602	5 787	3 609	1 805	5 047	
Gross income	11 401	19 622	29 092	41 930	75 615	35 532	7
<i>less</i> direct taxes	1 270	2 523	5 046	8 798	18 255	7 178	
<i>less</i> indirect taxes	2 862	3 592	4 316	5 579	7 354	4 741	

Post-tax income	7 269	13 507	19 731	27 553	50 006	23 613	7
<i>plus</i> benefits in kind (health, education etc.)	6 315	6 411	5 969	5 000	3 870	5 513	
Final income	13 584	19 918	25 699	32 553	53 876	29 126	4

Source: (Barnard 2010)

This redistributive effect of public spending and public services is especially important because of the growing inequality between the shares of profits and wages in the economy as a whole. There has been a long-term decline in the share of wages in Europe, the USA and Japan over the last 35 years. This decline means that workers have gained little even though productivity has risen massively. In the USA, for example, in the quarter century between 1980 and 2005, productivity increased by 71% while earnings rose only 14%. At the same time inequalities between the top and bottom incomes increased. The share of all income taken by the top 1% of people doubled from 8.4% in 1980 to 17.4% in 2005 (Levy and Temin 2007). Part of this process is linked to privatization, which moves economic activity from the public sector, where the share of wages is high, to the private sector, and so: “As a consequence of privatization and deregulation, capital has gained at the expense of labour, almost everywhere, for profit shares have risen while wage shares have fallen” (Nayyar 2006).

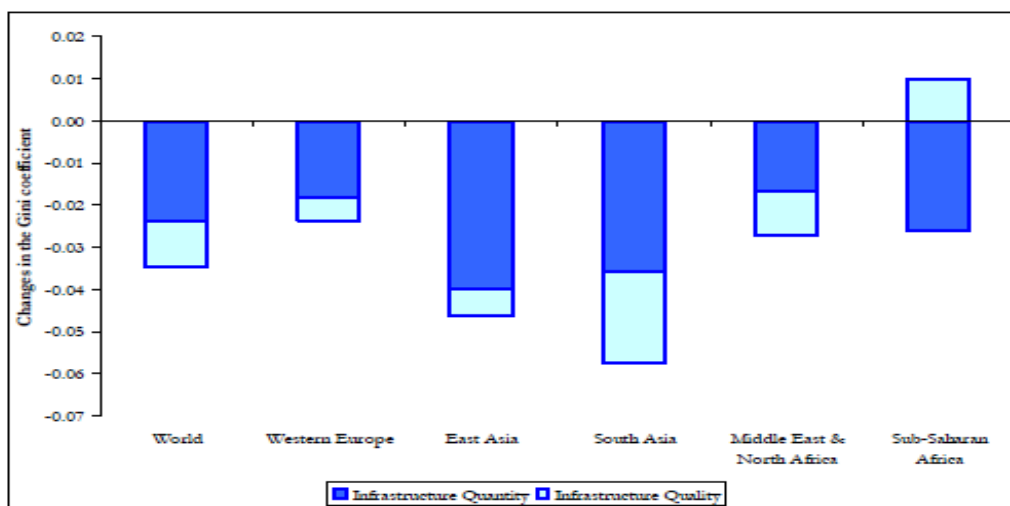
## Infrastructure and equality

Infrastructure investment is not only necessary for economic development, it has a direct impact on inequality of income. As people gain access to roads and electricity and telecoms, they have better opportunities for earning more, and so people on lower incomes gain more than those on higher incomes.

Recognition of these gains has been an important factor in the democratic processes of India, where the slogan of ‘bijli, sadak, pani’ – electricity, roads, and water – is widely used in election campaigns, because voters recognize the importance of these factors: household surveys in a number of different states provide systematic evidence that these infrastructures rank at the top of voter demands, alongside education (Khemani 2010).

**Chart H. Improvements in equality due to infrastructure development, 1990s–2000s, by region**

Change in Gini coefficient between averages for 1991–1995 and 2001–2005



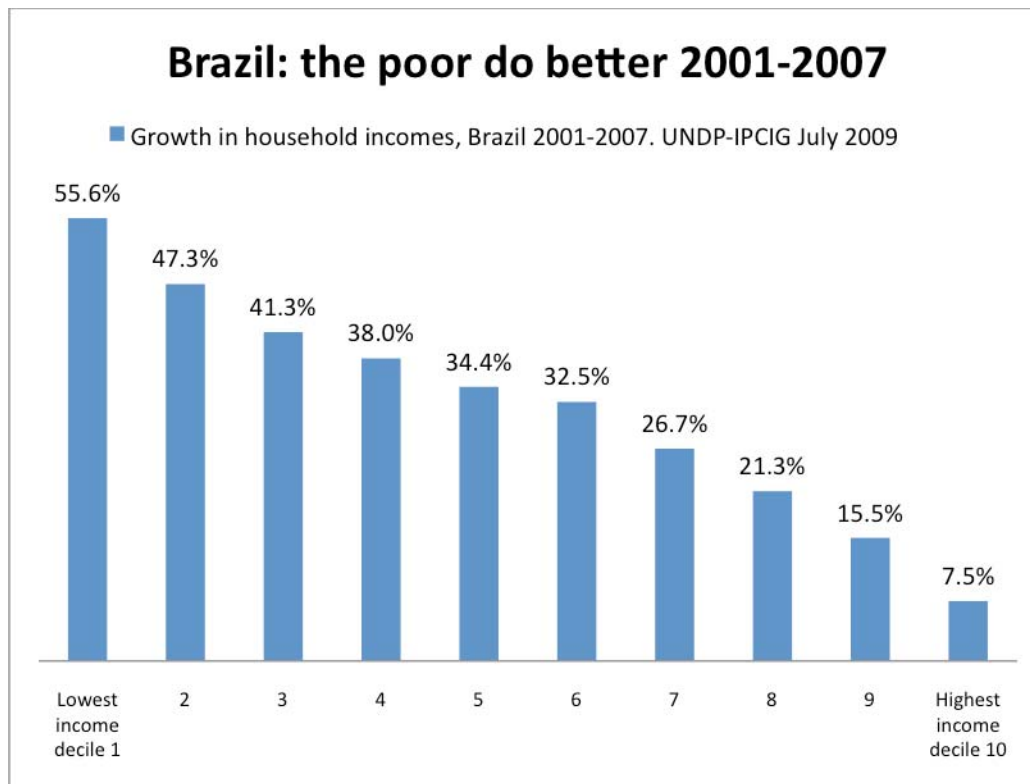
## Benefits and equality

Social security systems provide support to the vulnerable and the poor by providing benefits to raise incomes. These systems are well-established in high-income countries, which spend on average 13% of GDP on providing pensions to the old, child benefits to the young, and unemployment benefit to those without jobs. Benefit systems are basically redistributive, and so in principle are affordable for all groups of countries: “The cost is within reach of even the poorest countries, while making it affordable requires political will” (ILO (2008b and 2009).

The potential effects are considerable, as shown by the example of Brazil. The country has been one of the most unequal societies in the world, but it is becoming significantly more equal as a result of new government policies on public spending. Inequality, as measured by the Gini coefficient, fell from 0.59 in 2001 to 0.53 in 2007. Public spending has been crucial to this process: one-third of this greater equality is due to improved access to education, one-third is due to improved state benefits and minimum wage levels.

This greater equality has helped reduce the impact of the recession: “One reason why the financial and economic crisis did not hit Brazil as hard as other countries may be the growing domestic market and changes in the structure of demand created in the last decade. These, in turn, were spurred by this virtuous pattern of improved income distribution” (Hailu 2009).

**Chart I. Brazil: poor household incomes grow fastest 2001–2007**



Source: Hailu 2009

Pensions are also becoming increasingly important in developing countries. Private schemes work only for those with enough money to save, so state provision is necessary to reduce poverty. Contributory schemes do not help many women or those who have worked in the informal economy, and means-tested benefits in practice exclude too many people. The most effective way of providing pensions to eliminate poverty among the elderly is through universal flat-rate pensions financed from general taxation. Universal pensions also provide women with an equal pension, where they have not had the same opportunities as men for paid employment. Among developed countries, New Zealand has done this, and been exceptionally successful at eliminating old age poverty.

Similar schemes in developing countries also work – e.g. in Mauritius, where the poverty rate in elderly households has been reduced from 30% to 6%, and in Namibia, where a universal pension is the main source of income for many elderly people. Such pensions are affordable, even in developing countries. The scheme in Botswana costs 0.5% of GDP; in Mauritius 1.7% of GDP; in Nepal, just over 1% of GDP (Kidd, S., 2009).

In high-income countries, there is a range of complex public and private provision for pensions. Both the IMF and the European Commission claim that public finance for pensions has to be reduced, because of the aging of the population in northern countries. But even in OECD countries, the state pension is still more important as a way of providing a decent level of pensions.

### **The effectiveness of public services**

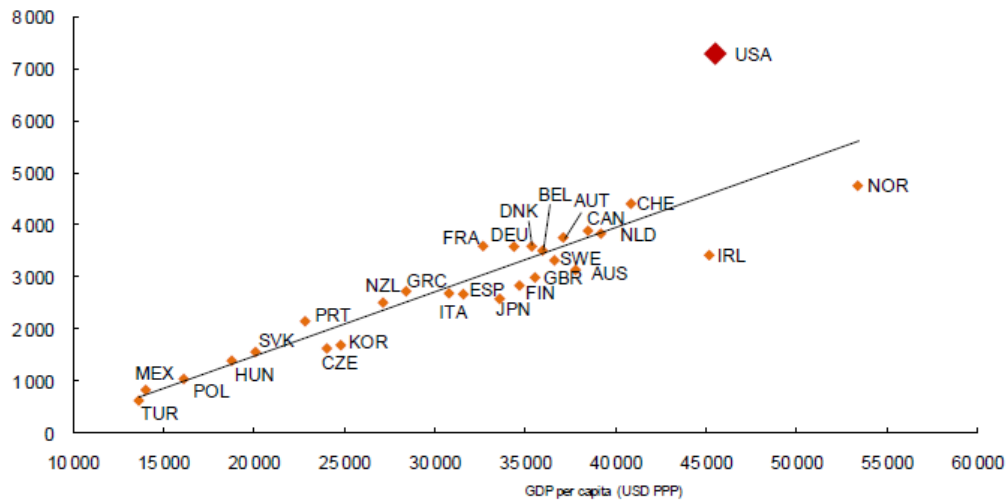
The general advantages of public spending are partly due to the relative efficiency of public services as a way of delivering services of benefit to society as a whole. This can be seen by examining specific services.

This section of the report sets out the relative advantages of public healthcare, showing how much more efficient and effective it is than a system based on private healthcare, followed by a note on how public housing offers a more efficient way of providing homes than forcing everyone to try and buy in the market, a system which led to unsustainable sub-prime mortgages.

### **The efficiency and effectiveness of public healthcare**

Spending on healthcare is higher in countries where GDP is higher, as shown in the graph below, which includes both public and private spending.

**Chart J. Health expenditure per capita and GDP per capita, OECD countries, 2007**



Source: OECD Health Data 2009

However, public spending represents the great majority of health spending in all OECD countries, except the USA (and Mexico). There is good reason for this. The comparative data shows that a healthcare system based on private spending is *less efficient* and *less effective* than systems based on public finance. As a result, public spending on healthcare has a positive effect on economic growth, but private spending on healthcare does not (OECD 2009).

The USA's healthcare system shows the inefficiency of private healthcare. Its total expenditure on healthcare is abnormally high - in 2007 the USA spent 16.0% of GDP on healthcare, far ahead of any other OECD country and nearly twice the OECD average of 8.9%. But this is not due to greater needs: for example, only 12.5% of the population is over 65, compared with 16.7% in Europe and 21.5% in Japan; and people are no more likely to be sick than in other OECD countries.

What is different about the USA is that the majority of its healthcare spending is based on private insurance and private provision – the only OECD country for which this is true, apart from Mexico. The excess expenditure in the USA is due to much higher prices charged for branded drugs and hospital procedures; much greater use of diagnostic tests such as scans and some surgical operations; and higher spending on administration.

This higher spending does not produce better results: there is no evidence of any medical gains from the additional operations and tests; USA pharmaceutical companies are less innovative than European companies; and there is much lower use of computer technology such as electronic patient records. It is thus, in economic terms, far less efficient than the public healthcare systems of other countries.

The system is also far less effective: in 2006 the overall life expectancy in the USA was 78.1 years, lower than all OECD countries of similar wealth, and below some developing countries including Cuba and Costa Rica. The USA infant mortality rate was 6.7 deaths per 1000 live

births – worse than all other OECD countries except Mexico and Turkey, and more than double the rate in the Czech republic, Finland, Iceland, Japan, Norway, Portugal and Sweden. Of all OECD countries, only the USA, Mexico and Turkey have not achieved universal healthcare coverage.

In the absence of a publicly financed health service, collective financing for healthcare may fall on employers either through legislation or through collective action by workers. In the USA, healthcare benefits are important elements in collective bargaining, and a key benefit of union organisation, because unions negotiate employer-funded schemes to provide security against ill-health. The cost of this insurance then appears as a higher level of indirect labour costs, on average 12% of total wages. This is a similar effect to employer contributions to social insurance schemes, except that it is not uniform across employers and not compulsory. Companies are thus at a disadvantage compared to companies in countries where healthcare is publicly financed.

**Table 8. Infant mortality, Deaths per 1000 live births, 2006, selected OECD countries**

Iceland	1.4
Luxembourg	2.5
Japan	2.6
Finland	2.8
Sweden	2.8
Norway	3.2
Czech Republic	3.3
Portugal	3.3
France	3.8
Germany	3.8
Spain	3.8
Australia	4.7
Canada	5.0
United Kingdom	5.0
United States	6.7

Source: OECD Health Data 2009

## Housing and the crisis

The financial crisis originated partly from the problem of ‘sub-prime’ mortgages. In the USA, in particular, poorer families had to try to buy homes by taking out mortgages from banks which were trying to expand their business. The banks loosened credit requirements, as they rushed to sign more people to mortgages. Many people could then not afford the payments, and so these ‘sub-prime’ mortgages became bad debts for the banks, a major factor in the banking crisis. And many others were encouraged to refinance their houses, allowing them to borrow more against the equity of the ‘unrealized’ increase in the value of their houses. This additional borrowing fuelled the consumption spree in the USA, keeping the economy healthy, yet preparing the crisis in the housing sector. When home values fell, many people who had refinanced found they owed more than their houses were worth. They too became unable to pay the mortgages. The banks responded with repossessions which made hundreds of thousands homeless.

These problems arose in part because countries had abandoned, or never developed, public housing policies aimed at providing affordable, decent housing to everyone. The provision of public sector housing at affordable rents was one of the major public services in the 20th century. In parallel, non-profit mutual savings banks and building societies enabled the middle classes to buy houses, with encouragement and support from governments. From the 1980s, public sector housing was cut back as part of the general reduction in the role of the state. At the same time, mutual building societies were converted into for-profit banks, with fewer restrictions on their lending policies. The policies were followed in some of the richest countries (such as the USA); in countries in transition from communism where large public housing stocks were privatized; and in some of the least developed (such as Malawi), where a 2007 survey found that “Formal housing finance in Malawi is rudimentary ... and less than 16% [are] able to afford a conventional house ... no subsidies are available to the individual” (Nyasulu and Cloete 2007).

The role of public housing services is being rediscovered, especially by UN agencies. The UN Economic Commission for Europe (UNECE) organized a conference in 2004 on housing problems in transition countries in central and eastern Europe, which concluded that:

... the increasing reliance on market forces has not been sufficient to compensate for the decline of the role of the state in the housing sector. For this reason, the housing needs of the poor and vulnerable are often not adequately addressed. The availability of affordable housing, however, is crucial for an individual’s well-being as well as for ensuring a social cohesive society. It is also an important factor for economic productivity: affordable housing is a prerequisite for labour mobility and an essential part of the creation of a policy environment conducive to enterprise formation and job creation. Realizing this, countries are increasingly searching for ways to effectively and efficiently address the housing concerns of those most in need, and the provision of social housing is an important tool to achieve this (UNECE 2004).

Housing is also a key issue in the slums of the rapidly growing cities of developing countries. This problem has been successfully addressed by public housing policies over the last 50 years in Singapore and Hong Kong, two of the most densely populated cities in Asia. In both cities, the programmes were started to deal with the problem of rapidly growing slum settlements, building hundreds of thousands of homes for rent. Public housing was later used to provide middle class housing as well, without rent subsidies. In Singapore, 85% of the population live in public housing, either rented or on a 99-year lease. Policies ensure that estates and new developments include a mix of different racial and social groups. Half the population of Hong Kong – over three million people – live in public housing; two million of them renting.

The global financial crisis has thus sharpened the need to rediscover the value of social housing. At the height of the crisis, in October 2008, the UN released a statement by its housing expert, Raquel Rolnik, arguing that the crisis shows markets alone cannot ensure housing for all, and demanded a re-appraisal of social housing policies:

The belief that markets will provide adequate housing for all has failed. The current crisis is a stark reminder of this reality, ... A home is not a commodity – four walls and a roof. It is a place to live in security, peace and dignity, and a right for every human being ...

Excessive focus on homeownership as the one and single solution to ensure access to housing is part of the problem ... adequate housing for all is a public goal whose achievement requires a wide variety of arrangements, from tax advantages to buy a home to better legal protection for tenants and rent control areas; from direct subsidies to the poor to publicly owned housing and a range of tenure arrangements. Markets, even with appropriate regulation, cannot provide adequate housing for all” (Rolnik 2008)

This was followed by a statement from the Executive Director of the United Nations Human Settlements Programme (UN-Habitat), Anna Tibaijuka, who told a UN-Habitat Committee meeting that:

Rapid, chaotic urbanization and the dearth of affordable housing were the underlying causes of the current financial crisis, and they could only be resolved through public financing and political will ... housing was the repository of national wealth, as well as a market product and a social good” (Tibaijuka 2008).

### **Environment: public funding to address climate change**

The greatest single challenge facing the countries of the world is dealing with climate change. The measures required include switching to renewable energy sources for generating electricity, investing in more energy-efficient industrial processes and more energy-efficient homes, and developing public transport systems to reduce the use of cars.

The global costs of all the measures required to cut carbon emissions by the necessary amount are estimated at between 1% and 3% of global GDP. The UN estimates that about three-quarters of this will have to come from public finance. These figures mean that globally, public spending will have to be higher by about 1.5% of total GDP, just on account of actions to deal with climate change.

The process has already started. The stimulus packages introduced by governments to counter the recession include many ‘green’ investment projects, estimated to be worth over \$436 billion in total – all from public finance. This part of the stimulus packages will not be phased out when the crisis is over: spending will have to continue at this level, and higher, for decades, in order to counter climate change.

The process of moving to sustainable energy patterns will itself create jobs. It is estimated that in the USA \$1billion of government spending on green energy projects will create 33,000 jobs. Groups of trade unionists in a number of countries have developed proposals for public investment programmes of energy efficiency, public transport, and development of renewable energy sources, which could create a million jobs per year.

Developing countries require investment of \$100billion per year by 2020, according to the UN Climate Summit (COP15) in Copenhagen, December 2009. The IMF estimates that 60% of this must be provided from public finance, through a combination of: (a) governments giving public finance as ‘initial capital’ for a green fund; (b) increased borrowing by issuing new government bond; (c) public finance to subsidize grants and cheap loans; and (d) new tax revenues e.g. through carbon taxes (IMF 2010).

At the same time, in developing countries, the process of electrification itself needs to be extended –requiring a further USD \$35billion per year, and needing both public finance and aid finance to support it. It will create extra demand for electricity, but at the same time it will replace the inefficient and polluting diesel generators which are widely used in many countries in both urban and rural areas where electricity connections do not exist. Further efficiencies can be gained through use of public procurement. For example, in both Uganda and Vietnam “the bulk procurement of 1 million compact fluorescent lamps substantially reduced the cost of the lamps and cut peak demand by 30 megawatts (World Bank 2010).

These policies require coherent planning and financing in a way which the market cannot deliver. One consequence is that public authorities are beginning to suggest that the liberalization of electricity markets in the north may have to be reversed (see box). Even within liberalized markets, it is only the state-owned companies which invest in research and development (R&D); the private sector does not invest in R&D:

The last two decades have witnessed a staggering decline of R&D investment in the fields of energy and electricity. This paper contends that this widespread phenomenon is mainly ascribable to the processes of liberalization and privatization of electricity markets which have induced electric utilities to dramatically reduce R&D expenditures. However, a closer inspection to recent data concerned with ten major electric companies of the world shows that not all of them behaved in the same way. The drop of research expenditures was particularly strong among the private or newly privatized companies, while those that remained under public control did not reduce R&D efforts (Sterlacchini 2010).

#### **Box G. Renewable energy**

Official bodies in EU countries are beginning to question whether the necessary investment can be delivered under a liberalized electricity system, because historically low-carbon energy has only ever been delivered by state investment. A UK report in 2009 pointed out that countries with a high proportion of non-carbon generation have built their capacity through large-scale government investment, not through markets, and concluded that: “Several countries already source over 70% of their power generation from low-carbon sources. For these, investment has typically only occurred with substantial government intervention, even where markets have subsequently been liberalized ... We should not accept the significant risks and costs associated with the current market arrangements [in the UK and EU]: changes to the current arrangements are both required and inevitable” (UK Committee on Climate Change 2009).

#### **Interim conclusion**

This article has reviewed the economic and social role of public spending. In the wake of the financial and economic crisis, there are strong pressures being exerted to reduce public spending and the public sector, even at the expense of higher unemployment and economic recession.

The arguments advanced for these cuts focus on the ‘affordability’ of public services, the desirability of keeping taxation low, and the effects of government borrowing. These arguments are part of a political process, and are being resisted through political action.

The next article looks at these issues, and at the actors in this process include the IMF and other international bodies such as the G20 and the European Union. It will also discuss the future of public spending.

## Bibliography

Akitoby B., Clements B., Gupta S.\*, Inchauste G. 2006 'Public spending, voracity, and Wagner's law in developing countries' *European Journal of Political Economy* 22 (2006) 908–924 <http://dx.doi.org/10.1016/j.ejpoleco.2005.12.001> .

Aschauer D. 1989 'Is Public Expenditure Productive?' *Journal of Monetary Economics* 23 (1989) 177–200.

Azémar C. and Delios A. 2008 'Tax competition and FDI: The special case of developing countries' *Journal of the Japanese and International Economies* Volume 22, Issue 1, March 2008, Pages 85–108.

Bahl R. 2009 *Fixing the Property and Land Tax Regime in Developing Countries* IFC [http://www.ifc.org/ifcext/fias.nsf/AttachmentsByTitle/FIAS\\_Conference\\_RaisingTaxesThroughRegulation\\_PaperBahl/\\$FILE/FixingPropertyandLandTaxRegime\\_Bahl.pdf](http://www.ifc.org/ifcext/fias.nsf/AttachmentsByTitle/FIAS_Conference_RaisingTaxesThroughRegulation_PaperBahl/$FILE/FixingPropertyandLandTaxRegime_Bahl.pdf) .

Barnard A. 2010 *The effects of taxes and benefits on household income, 2008/09* UK National Statistics. <http://www.statistics.gov.uk/CCI/article.asp?ID=2440>, <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=10336> .

Bartelsman, E. J., Beetsma, R. (2003) 'Why Pay More? Corporate Tax Avoidance through Transfer Pricing in OECD Countries' *Journal of Public Economics* 87: 2225–2252.

Baunsgaard, T. & Keen, M., 2010. 'Tax revenue and (or?) trade liberalization. *Journal of Public Economics*, 94(9–10), 563–577. Available at: <http://www.sciencedirect.com/science/article/B6V76-4XSVR5B-1/2/548487cb59f8d119ece33adf7c10f279> .

Bearse P., Glommb G., and Janeba E. 2000 'Why poor countries rely mostly on redistribution in-kind' *Journal of Public Economics* 75 (2000) 463–481.

Beitler D. 2010 *Raising Revenue 2010* <http://robinhoodtax.org.uk/files/Raising-Revenue-web.pdf> .

Beraldo S., Montolio D. and Turati G. 2009 'Healthy, educated and wealthy: A primer on the impact of public and private welfare expenditures on economic growth' *The Journal of Socio-Economics* 38 (2009) 946–956.

Bettendorf L., van der Horst A., De Mooij R. 2009 'Corporate Tax Policy and Unemployment in Europe: An Applied General Equilibrium Analysis' in: *The World Economy* Volume 32, Issue 9, DOI: 10.1111/j.1467-9701.2009.01211.x .

- Boix C. 2001 'Democracy, development, and the public sector' *American Journal of Political Science*, 2001 [http://pics3441.upmf-grenoble.fr/articles/demo/democracy\\_development\\_and\\_the\\_public\\_sector.pdf](http://pics3441.upmf-grenoble.fr/articles/demo/democracy_development_and_the_public_sector.pdf) .
- Bose, N., Emranul Haque M., and Osborn D. 2007 'Public expenditure and economic growth: a disaggregated analysis for developing countries' in: *The Manchester School* Vol 75 No. 5 September 2007 [http://personalpages.manchester.ac.uk/staff/emranul.haque/manc\\_1028.pdf](http://personalpages.manchester.ac.uk/staff/emranul.haque/manc_1028.pdf) .
- Brammer S. and Walker H. 2007 *Sustainable procurement practice in the public sector: An international comparative study* University of Bath School of Management Working Paper Series 2007.16. <http://www.bath.ac.uk/management/research/papers.htm> .
- Bucci A., Florio M., La Torre D. 2009 *Transitional Dynamics in a Growth Model with Government Spending, Technological Progress and Population Change* [http://www.york.ac.uk/depts/econ/documents/seminarpapers/latorre\\_paper.pdf](http://www.york.ac.uk/depts/econ/documents/seminarpapers/latorre_paper.pdf) .
- Calderón C. and Servén L. 2008 *Infrastructure and economic development in Sub-Saharan Africa* <http://www.csae.ox.ac.uk/conferences/2008-EdiA/papers/141-Serv%C3%A9n.pdf> .
- Calderon, C. and Servén, L. 2004 'The effects of infrastructure development on growth and income distribution policy', Research working paper; no. WPS 3400 <http://go.worldbank.org/7N83I17PW0> .
- Cameron D. 1982 'On the Limits of the Public Economy' *Annals of the American Academy of Political and Social Science*, Vol. 459, Government and Economic Performance (Jan., 1982), pp. 46–62 <http://www.jstor.org/pss/1043673> .
- Castellani R. and Zanfei A. 2008 'Location choices of multinational firms in Europe: The role of EU cohesion policy' *Journal of International Economics* Volume 74, Issue 2, March 2008, Pages 328–340 doi:10.1016/j.jinteco.2007.08.006.
- CEEP 2010 *Public Services in the European Union & in the 27 Member States*. CEEP May 2010 [http://www.ceep.eu/index.php?option=com\\_content&view=article&id=44&Itemid=58](http://www.ceep.eu/index.php?option=com_content&view=article&id=44&Itemid=58) .
- Chernyavsky 2004 *Review of the Municipal Finance Development in Russia in 1992 – 2002*. Institute for Urban Economics [http://www.urbaneconomics.ru/eng/publications.php?folder\\_id=19&mat\\_id=11](http://www.urbaneconomics.ru/eng/publications.php?folder_id=19&mat_id=11) .
- Clements B., Faircloth C and Verhoeven M. 2007 *Public Expenditure in Latin America: Trends and Key Policy Issues* IMF Working Paper WP/07/21 February 2007.
- Cusack Thomas R. and Fuchs Susanne June. 2002 'Ideology, Institutions, and Public Spending' Wissenschaftszentrum Berlin für Sozialforschung, Discussion paper P 02 – 903 <http://bibliothek.wz-berlin.de/pdf/2002/p02-903.pdf> .

Darby J. and Melitz J. 2008 'Social Spending And Automatic Stabilisers' inL *The OECD CPPR Discussion Paper No.18* May 2008 [http://www.gla.ac.uk/media/media\\_78199\\_en.pdf](http://www.gla.ac.uk/media/media_78199_en.pdf) .

Devereux M. and Griffith R. 2002 'The impact of corporate taxation on the location of capital: A review' *Swedish Economic Policy Review*, 2002.

Devereux M., Lockwood B. and Redoano M. 2008 'Do countries compete over corporate tax rates?' *Journal of Public Economics* Volume 92, Issues 5–6, June 2008, Pages 1210–1235 doi:10.1016/j.jpubeco.2007.09.005 .

DIE Briefing Paper 12/2009 *Should We Engage in Development Cooperation with Countries that have a Notoriously Low Tax Ratio?* [http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/%28ynDK\\_contentByKey%29/ANES-7YKJQ6/\\$FILE/BP%2012.2009.pdf](http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/%28ynDK_contentByKey%29/ANES-7YKJQ6/$FILE/BP%2012.2009.pdf) .

EIRO 2008 *ILO Convention on Labour Clauses applied to municipal authorities*. EIRO online NO0802049I 28 March 2008 <http://www.eurofound.europa.eu/eiro/2008/02/articles/no0802049i.htm> .

EIRO 2010 *Working time developments – 2009* <http://www.eurofound.europa.eu/eiro/studies/tn1004039s/tn1004039s.htm> .

Estache A., Perelman S., and Trujillo L. 2005 *Infrastructure performance and reform in developing and transition economies: evidence from a survey of productivity measures* World Bank Policy Research Working Paper 3514, February 2005. [http://wdsbeta.worldbank.org/external/default/WDSContentServer/IW3P/IB/2005/03/06/000090341\\_20050306101429/Rendered/PDF/wps3514.pdf](http://wdsbeta.worldbank.org/external/default/WDSContentServer/IW3P/IB/2005/03/06/000090341_20050306101429/Rendered/PDF/wps3514.pdf) .

European Commission 2009 *Mobilising private and public investment for recovery and long term structural change: developing Public Private Partnerships* COM(2009) 615 final Brussels, 19.11.2009 [http://ec.europa.eu/growthandjobs/pdf/european-economic-recovery-plan/ppp\\_en.pdf](http://ec.europa.eu/growthandjobs/pdf/european-economic-recovery-plan/ppp_en.pdf) .

European Commission 2010 *Europe 2020 A strategy for smart, sustainable and inclusive growth* COM(2010) 2020 Brussels, 3.3.2010. p.12 <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%2020007%20-%20Europe%202020%20-%20EN%20version.pdf> .

European Commission 2010 *Statistical Annex of European Economy Spring 2010* [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2010/pdf/statistical\\_annex\\_spring2010\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2010/pdf/statistical_annex_spring2010_en.pdf) .

Evans S. and Lewis R. 1988. 'Labour Clauses: From Voluntarism to Regulation' *Industrial Law Journal* 17(1): 209. 1988.

Field A. 2007 'The origins of US total factor productivity growth in the golden age' *Cliometrica* (2007) 1:63–90 DOI 10.1007/s11698-007-0006-4.

Florio M. & S Colautti 2005 'A logistic growth theory of public expenditures: A study of five countries over 100 years' *Public Choice* (2005) 122: 355–393  
<http://www.springerlink.com/content/lg476mx41h21021n/fulltext.pdf> .

Furuoka, F. 2008. 'Wagner's Law in Malaysia: A New Empirical Evidence' *The IUP Journal of Applied Economics*, IUP Publications, vol. 0(4), pages 33–43

G. Baiocchi 2003 *Radicals in power: the Workers' Party (PT) and experiments in urban democracy in Brazil*.

Gintis H. and Bowles S. 1982 'The Welfare State and Long-Term Economic Growth: Marxian, Neoclassical, and Keynesian Approaches' *The American Economic Review*, Vol. 72, No. 2, Papers and Proceedings of the Ninety-Fourth Annual Meeting of the American Economic Association (May, 1982), pp. 341–345 Published by: American Economic Association Stable URL: <http://www.jstor.org/stable/1802355> .

Gordon R. and Li W. 2009 'Tax structures in developing countries: Many puzzles and a possible explanation' *Journal of Public Economics* Volume 93, Issues 7–8, August 2009, Pages 855–866 doi:10.1016/j.jpubeco.2009.04.001 .

Government of India 2010 *Mahatma Gandhi National Rural Employment Guarantee Act* website <http://nrega.nic.in/netnrega/home.aspx>

Gregoriou A. and Ghosh S. 2009 'The impact of government expenditure on growth: empirical evidence from a heterogeneous panel' *Bulletin of Economic Research* 61:1, 2009, 0307–3378 DOI: 10.1111/j.1467-8586.2008.00297.x.

Hagemejer K. 2009 'Can Low-Income Countries Afford Basic Social Security?' in: *Building decent societies: Rethinking the role of social security in development* Edited by Peter Townsend ILO 2009

[http://www.ilo.org/global/What\\_we\\_do/Publications/ILOBookstore/Orderonline/Books/lang--en/WCMS\\_104725/index.htm](http://www.ilo.org/global/What_we_do/Publications/ILOBookstore/Orderonline/Books/lang--en/WCMS_104725/index.htm) .

Hailu D. 2009 *What Explains the Decline in Brazil's Inequality?* UNDP-IPCIG One-pager No. 89 July 2009 <http://www.ipc-undp.org/pub/IPCOnePager89.pdf> .

Hall D. 2007 *Public sector finance for investment in infrastructure – some recent developments*. PSIRU April 2007 <http://www.psiru.org/reports/2007-04-U-pubinv.doc> .

Hall D. 2008 *Alternatives to PPPs: positive action for in-house services*. PSIRU October 2008 <http://www.psiru.org/reports/2008-11-PPPs-altern.doc>.

- Hall D. 2008 *Economic crisis and public services* PSIRU December 2008  
<http://www.psiru.org/reports/2008-12-crisis-1.doc>.
- Hall D. 2008 *More public rescues for more private finance failures* March 2010  
<http://www.psiru.org/reports/2010-03-PPPs.doc> .
- Hall D. 2008 *Protecting workers in PPPs* PSIRU October 2008  
<http://www.psiru.org/reports/2008-11-PPPs-workers.doc>.
- Hall D. 2008 *Public-private Partnerships PPPs in the EU – a critical appraisal* PSIRU November 2008  
<http://www.psiru.org/reports/2008-11-PPPs-crit.doc>.
- Hall D. 2009 *Infrastructure, the crisis, and pension funds* PSIRU December 2009  
<http://www.psiru.org/reports/2009-12-infra.doc>.
- Hall D. 2010 *More public rescues for more private finance failures* PSIRU March 2010  
<http://www.psiru.org/reports/2010-03-PPPs.doc>.
- Hamilton G. 2009 ‘Impact of the Global Financial Crisis – What Does It Mean for PPPs in the Short to Medium Term?’ Presentation to KDI/ADB/ADBI/WBI conference May 2009 Seoul, Korea  
<http://pima.kdi.re.kr/eng/new/event/090619/9-4.pdf> .
- Hansson A. and Olofsdotter K. 2008 *Foreign Direct Investment in Europe: Tax Competition and Agglomeration Economies* <http://www.etsg.org/ETSG2008/Papers/Olofsdotter.pdf> .
- Helm D. 2006 *Ownership, Utility Regulation And Financial Structures: An Emerging Model*  
[http://www.dieterhelm.co.uk/publications/OwnershipUtilityReg\\_FinancialStructures.pdf](http://www.dieterhelm.co.uk/publications/OwnershipUtilityReg_FinancialStructures.pdf) .
- Hudson M. 2010 ‘Latvia Renewed’ [http://www.rtf.lv/documents/Latvia\\_Renewed\\_2010.pdf](http://www.rtf.lv/documents/Latvia_Renewed_2010.pdf) .
- ILO 1949 *Labour Clauses (Public Contracts) Convention, 1949 (No. 94)*. International Labour Organization (ILO) <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C094> .
- ILO 2008 ‘Labour clauses in public contracts: Integrating the social dimension into procurement policies and practices’ International Labour Conference 97th Session, 2008. [www.ilo.org/publns](http://www.ilo.org/publns).
- IMF 2004 *Public Investment and Fiscal Policy* March 12, 2004  
<http://www.imf.org/external/np/fad/2004/pifp/eng/PIFP.pdf> .
- IMF 2004 *Public-private Partnerships* March 12, 2004  
<http://www.imf.org/external/np/fad/2004/pifp/eng/031204.htm>.
- IMF 2009 *Bolstering the IMF’s Lending Capacity* July 08, 2009  
<http://www.imf.org/external/np/exr/faq/contribution.htm> .

IMF 2009a ‘Debt Bias and Other Distortions: Crisis-Related Issues in Tax Policy’ Prepared by the Fiscal Affairs Department Approved by Carlo Cottarelli June 12, 2009  
<http://www.imf.org/external/np/pp/eng/2009/061209.pdf> .

IMF 2009b Fiscal Implications of the Global Economic and Financial Crisis June 9, 2009 SPN/09/13, Tables 3.1, 3.4 <http://www.imf.org/external/pubs/ft/spn/2009/spn0913.pdf>

IMF 2009c ‘IMF Acting on Several Fronts to Ramp Up Its Financing’. Survey online July 6, <http://www.imf.org/external/pubs/ft/survey/so/2009/INT070709A.htm>

IMF 2009d *Global Financial Stability Report* GFSR Market Update July 08, 2009  
<http://www.imf.org/external/pubs/ft/fmu/eng/2009/02/index.htm>.

IMF 2009e *The Effects of the Financial Crisis on Public-private Partnerships* IMF Working Paper WP/ 09/144 July 2009.

IMF 2009f *The State of Public Finances: a Cross-country Fiscal Monitor* SPN/09/21 July 30 2009 Tables 1,2 <http://www.imf.org/external/pubs/ft/spn/2009/spn0921.pdf> .

IMF 2010 *Financing the Response to Climate Change* SPN 10/06 March 25, 2010  
<http://www.imf.org/external/pubs/ft/spn/2010/spn1006.pdf> .

IMF 2010 *From stimulus to consolidation : revenue and expenditure policies in advanced and emerging economies* <http://www.imf.org/external/pubs/ft/dp/2010/dp1003.pdf> .

IMF 2010 *Regional Economic Outlook April 2010 Sub-Saharan Africa Back to High Growth.*  
<http://www.imf.org/external/pubs/ft/reo/2010/AFR/eng/sreo0410ch2.pdf> .

IMF 2010 *WEO 2010: Rebalancing growth*  
<http://www.imf.org/external/pubs/ft/weo/2010/01/index.htm>.

India Budget speech. Transcript as published in *Financial Times* July 6 2009  
[http://www.ft.com/cms/s/0/373895ba-6a32-11de-ad04-00144feabdc0.dwp\\_uuid=a6dfcf08-9c79-11da-8762-0000779e2340.html](http://www.ft.com/cms/s/0/373895ba-6a32-11de-ad04-00144feabdc0.dwp_uuid=a6dfcf08-9c79-11da-8762-0000779e2340.html) .

Jiranyakul et al 2007 ‘The relationship between government expenditures and economic growth’  
*Thailand Journal of Economics and Economic Education Research*  
<http://www.allbusiness.com/economy-economic-indicators/economic-conditions-growth/13478548-1.html> .

Jonakin J. and Stephens M. 1999 ‘The impact of adjustment and stabilization policies on infrastructure spending in Central America’ *The North American Journal of Economics and Finance*, Volume 10, Issue 1, 1999 <http://www.sciencedirect.com/science/article/B6W5T-3YWX9V1-C/2/fd1713e155e84b206e63edfdcab2b1e9> .

Judge K. 1980 *Is there a ‘crisis’ in the welfare state?*  
<http://www.emeraldinsight.com/journals.htm?issn=0144->

[333x&volume=1&issue=2&articleid=1660997&show=pdf&PHPSESSID=nrprd2f6qeiusismt1tp71pjt0](#) .

Kasekende L. 2009 'Public Policy and Economic Development in Africa'. 65th Congress of the International Institute of Public Finance August 13, 2009, Cape Town, South Africa [www.iipf.org/speeches/Kasekende\\_2009.pdf](http://www.iipf.org/speeches/Kasekende_2009.pdf) .

Khanna P. 2010 *How secure is the National Rural Employment Guarantee as a safety net?* [http://www.global-labour-university.org/fileadmin/GLU\\_conference\\_2010/papers/52\\_How\\_Secure\\_is\\_National\\_Rural\\_Employment\\_Guarantee\\_as\\_a\\_Safety\\_Net.pdf](http://www.global-labour-university.org/fileadmin/GLU_conference_2010/papers/52_How_Secure_is_National_Rural_Employment_Guarantee_as_a_Safety_Net.pdf) .

Khemani S. 2010 *Political Economy of Infrastructure Spending in India*. World Bank Policy Research Working Paper 5423 September 2010c.

Kidd, S., 2009 'Equal pensions, equal rights: achieving universal pension coverage for older women and men in developing countries' *Gender & Development*, 17(3), 377. <http://www.informaworld.com/10.1080/13552070903298337> .

Knyazeva A., Knyazeva D., Stiglitz J. 2006 *Ownership change, institutional development and performance* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=846364](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=846364) .

Lamartina S. and Zaghini A. 2008 *Increasing Public Expenditures: Wagner's Law in OECD Countries* Center for Financial Studies No. 2008/13 [https://www.ifk-cfs.de/fileadmin/downloads/publications/wp/08\\_13.pdf](https://www.ifk-cfs.de/fileadmin/downloads/publications/wp/08_13.pdf) .

Laughlin and Martin 2006 *Options for Reforming Local Government Funding to Increase Local Streams of Funding: International Comparisons*. Cardiff University. <http://www.clrgr.cf.ac.uk/publications/reports/Options%20for%20Reforming%20Local%20Government%20Funding%20International%20Comparisons%20Final%20report.pdf> .

Levy, F. and Temin, P. 2007 *Inequality and Institutions in 20th Century America*. MIT Department of Economics Working Paper No. 07-17 <http://web.mit.edu/ipc/publications/pdf/07-002.pdf> .

Lora, E. 2007 *Public Investment in Infrastructure in Latin America: Is Debt the Culprit?* (January 1, 2007). Inter-American Development Bank Working Paper No. 595 Available at SSRN: <http://ssrn.com/abstract=964332> .

Martin S. and Parker D. '1997' in: *The Impact of Privatisation Ownership and Corporate Performance in the UK*, Routledge, London (1997).

Martin Wolf 2009 'Why it is still too early to start withdrawing stimulus', *Financial Times*, 09 Sept 2009 <http://www.ft.com/cms/s/0/cf6ae1e4-9ca5-11de-ab58-00144feabdc0.html> .

- Marx K. 1857 *Grundrisse Part 10 Circulation costs*  
<http://www.marxists.org/archive/marx/works/1857/grundrisse/ch10.htm>.
- McCrudden C. 2004 'Using public procurement to achieve social outcomes' *Natural Resources Forum* 28(4), 257–67.
- McKinley T. 2009 *Why has tax revenue stagnated in low income countries?*  
<http://www.soas.ac.uk/cdpr/publications/dv/file55026.pdf> .
- McKinley T. and Kyrili K. 2009 'Is Stagnation of Domestic Revenue in Low-Income Countries Inevitable?' SOAS Discussion Paper 27/09.
- Kabiru Mato *Nigeria: Housing – the Borno Initiative* <http://www.leadershipnigeria.com/> (Abuja) 19 October 2008, Posted to the web 20 October 2008
- Mosha A. 2002 *Local Democracy and Decentralization in Botswana: UNHABITAT Report*.
- Nayyar D. 2006 'Globalisation, history and development: a tale of two centuries' *Cambridge Journal of Economics* 2006, 30. pp155–6 <http://economia.unipv.it/biblio/nayyar.pdf>
- Nketiah-Amponsah E 2009 'Public spending and economic growth: evidence from Ghana (1970–2004)' *Development Southern Africa*, Volume 26, Issue 3 September 2009, pages 477 – 497
- Nyasulu E. and Cloete C. 2007 'Lack of affordable housing finance in Malawi's major urban areas' *Property Management* Vol. 25 No. 1, 2007 pp. 54–67.
- David Oakley (2010) 'Irish face bill of €50bn for bank rescue' by *Financial Times* September 30
- OECD 2008 'Employment in government in the perspective of the production costs of goods and services in the public domain' OECD gov/pgc/pem(2008)1 28-Jan-2008.
- OECD 2010 *African Economic Outlook* <http://www.africaneconomicoutlook.org/en/data-statistics/> .
- OECD *Health data 2009*  
[http://www.oecd.org/document/30/0,3343,en\\_2649\\_34631\\_12968734\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/30/0,3343,en_2649_34631_12968734_1_1_1_1,00.html) .
- Offer A. 2001 'Why has the public sector grown so large in market societies?' Inaugural Lecture delivered before the University of Oxford  
<http://www.nuff.ox.ac.uk/Economics/History/Paper44/oup44.pdf>
- Osberg L., Smeeding T. and Schwabish J. May 2003 *Income Distribution and Public Social Expenditure: Theories, Effects and Evidence*.

Oxford Economics 2008 *The Public Services Industry in the UK* June 2008  
<http://www.berr.gov.uk/files/file46938.pdf> .

Parnell S. Pieterse E., and Swilling M. 2002 *Democratising local government: the South African experiment*. University of Cape Town.

Pearson M. 2009 'Disparities in health expenditure across OECD countries: Why does the United States spend so much more than other countries?' Written Statement to Senate Special Committee on Aging: 30th September 2009  
[http://www.oecdwash.org/PDFILES/Pearson\\_Testimony\\_30Sept2009.pdf](http://www.oecdwash.org/PDFILES/Pearson_Testimony_30Sept2009.pdf)

Pennybacker S. 1995 *A Vision for London, 1889–1914: Labour, Everyday Life and the LCC Experiment*.

Popov V. 2009 'Lessons from the Transition Economies: Putting the Success Stories of the Postcommunist World into a Broader Perspective' UNU Research Paper No. 2009/15 March 2009.

Sen, Amartya 1999 *Development as Freedom* OUP.

Shrestha L. 2006 *Age Dependency Ratios and Social Security Solvency*. Congressional Research Service October 2006 <http://aging.senate.gov/crs/ss4.pdf> .

Siemens. 2007 *Public infrastructures and private funding*. <http://www.siemens.de/finance> .

Slemrod 2007 'Cheating ourselves: The economics of tax evasion' *The Journal of Economic Perspectives*, 2007 <http://www.jstor.org/stable/30033700>.

Smeeding T. 2009 AIM-AP project 2006–2009  
<http://www.iser.essex.ac.uk/research/euromod/research-and-policy-analysis-using-euromod/aim-ap> .

Sterlacchini, A. 2010 'Energy R&D in private and state-owned utilities: an analysis of the major world electric companies'. February 2010 MPRA Paper No. 20972 <http://mpra.ub.uni-muenchen.de/20972/> .

Tanzi V and Schuknecht 2000 *Public Spending in the 20th Century* CUP Chapter 1  
<http://assets.cambridge.org/9780521662918/sample/9780521662918wsn01.pdf> .

Taskforce on International Financial Transactions for Development 2010 *Globalizing solidarity: The Case for Financial Levies*.

Uemura T. 2010 'Understanding International Solidarity Levy: its potential, issues and future' Presentation at Campaign Launching Workshop on the International Solidarity Levy Public Services International <http://www.world->

[psi.org/Content/ContentGroups/English7/Regions/Asia\\_Pacific/News\\_and\\_articles2/Launch\\_of\\_Campaign\\_on\\_International\\_Solidarity\\_Levy.htm](http://psi.org/Content/ContentGroups/English7/Regions/Asia_Pacific/News_and_articles2/Launch_of_Campaign_on_International_Solidarity_Levy.htm) .

UK Committee on Climate Change, 2009. *Meeting Carbon Budgets – the need for a step change*. Progress report to Parliament. pp.136–137 <http://www.theccc.org.uk/reports/progress-reports> .

UK Govt HM Treasury 2008 ‘PFI projects list’ [http://www.hm-treasury.gov.uk/documents/public\\_private\\_partnerships/ppp\\_pfi\\_stats.cfm](http://www.hm-treasury.gov.uk/documents/public_private_partnerships/ppp_pfi_stats.cfm) .

UK House of Commons Transport Committee 2008 *The London Underground and the Public–Private Partnership Agreements Second Report of Session 2007–08* HC 45 16 January 2008.

UK House of Commons Transport Committee 2010 *The performance of the Department for Transport Fourth Report of Session 2009–10* HC 76 March 2010 p.22  
<http://www.publications.parliament.uk/pa/cm200910/cmselect/cmtran/76/76.pdf> .

UNDP 2010 *Policy Brief: Gender Equality and Employment Guarantee Policies*  
<http://content.undp.org/go/cms-service/download/publication/?version=live&id=2713828> .

UNECE 2004. ‘Summary report of UNECE Conference on Social Housing’.  
[http://www.unece.org/hlm/prgm/hmm/social%20housing/UNECE\\_Report\\_FIN.pdf](http://www.unece.org/hlm/prgm/hmm/social%20housing/UNECE_Report_FIN.pdf) .

Verma S., Arora R. 2010. ‘Does the Indian Economy Support Wagner’s Law? An Econometric Analysis’ *Eurasian Journal of Business and Economics* 2010, 3 (5), 77–91.

Wheeler & Mody 1992 ‘International investment location decisions: The case of US firms’  
*Journal of International Economics*, 33, 57–76.

Wilkinson R. and Pickett K. 2009 *The Spirit Level: Why Equality is Better for Everyone*  
<http://www.equalitytrust.org.uk/resource/the-spirit-level?gclid=CITX9861xaQCFVD-2AodUgvPDA> .

World Bank 2004 *Global Monitoring Report 2004*  
<http://siteresources.worldbank.org/GLOBALMONITORINGEXT/Resources/0821358596.pdf> .

World Bank 2010 *Development and Climate Change World Development Report 2010*  
<http://www.worldbank.org/wdr> .

World Bank 2010 *Global Economic Prospects 2010* p.5–6  
<http://siteresources.worldbank.org/INTGEP2010/Resources/FullReport-GEPSummer2010.pdf> .

World Bank/AFD 2010 *Africa’s Infrastructure*  
[http://www.infrastructureafrica.org/aicd/system/files/AIATT\\_Consolidated\\_smaller.pdf](http://www.infrastructureafrica.org/aicd/system/files/AIATT_Consolidated_smaller.pdf)