



# Risk-Based Audit: How to Improve Results

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Improving risk-based audit systems is a cost-effective way to:

- Raise revenue.
- Increase efficiency and fairness of the tax system.
  - Focus audit resources on less compliant taxpayers.
  - Reduce audit burden on more compliant taxpayers.

Risk-based audit systems are based on:

- Taxpayer-specific inferences about tax compliance risk.
- Allocation of audit resources based on these inferences.

Improving the accuracy of the inferences generates benefits in terms of more efficient allocation of audit resources.

# Introduction (Cont.)

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## ICGFM

Technology makes improved inference possible.

- Electronic filing makes more information available sooner.
- Object-oriented programming (OOP) helps organize, and supports the analysis of, information.

Organization of presentation.

- Current approach to risk-based audit and its limitations.
- Considerations in the design of risk-based audit systems.
- Electronic filing and OOP.
- Deterministic vs. statistical approaches to risk-based audit.
- New analytic opportunities.

# Current Approaches

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## ICGFM

Inferences about tax compliance often based on statistical models.

- Past audit results as function of tax return characteristics.
- Model applied to currently-filed returns to estimate tax compliance risk.
- Returns ranked and audited in terms of estimated risk.

Data and measurement issues:

- Representativeness of historical data and selection bias.
- Deterrent effects usually ignored.
- Unit of observation (tax return vs. economic enterprise).

Ranking of returns:

- Weighting issues.
- Institutional risk.

# Electronic Filing and OOP

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## ICGFM

### Electronic Filing

- More tax return information available sooner.
- Other information:
  - Related returns, financial statements, administrative records.
- More precise measures of issue-specific tax compliance risk possible.
- Data conforms more to a tree than a rectangular data structure.

### OOP

- Enterprise data structure made possible by OOP.
  - All data and its structure available programmatically.
  - Abstract classes for each type of component entity.
  - Each entity instantiated when the data are parsed.
  - Enterprise data structure defined by ownership objects.

# Risk Assessment and Resource Allocation

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## ICGFM

### Statistical Approach

- Collapse enterprise object into rectangular table for statistical analysis.
  - Loss of information.
  - Representativeness issue still a problem.

### Deterministic Approach

- Stratify returns by size and broad indicators of compliance risk.
- Select randomly from each stratum.
  - Greater weight assigned to larger, higher-risk returns.
  - Lesser (but still positive) weights assigned to other returns.
- Random component reduces institutional risk and ensures a statistically valid sample of returns.

## Issue-Specific Tax Compliance Risk Measures

- Expected adjustment from auditing specific issues.
- Certainty of audit result.
- Materiality threshold.

Useful for both statistical and deterministic approaches.

- Deterministic approach enables more transparent consideration of multiple objectives.

# New Analytic Possibilities

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## ICGFM

Book-Tax Income and Balance Sheet Differences.

- Differences between what taxpayers report to shareholders and what they report to tax authorities.

Tax Shelter Detection

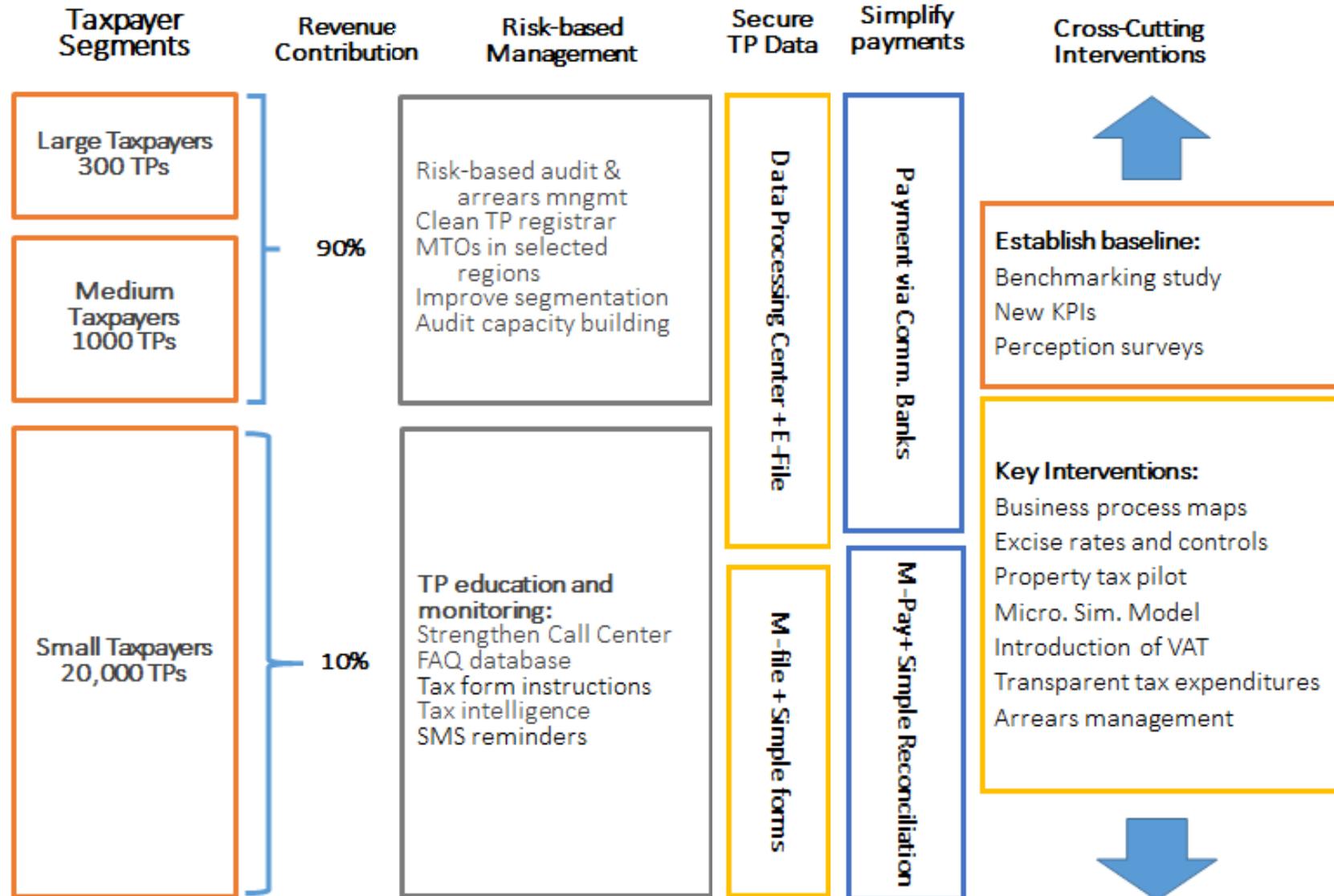
- Tax shelters often depend on certain entity structures.
- Enterprise objects allow one to search for these structures analytically.

Economic Anomalies

- If the enterprise object represents the economic enterprise, one can analyze discrepancies between behaviors of profit-maximizing and tax-minimizing firms.

# Part of a Comprehensive Strategy

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# Cost-effective Way to Raise Revenue

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## ICGFM

Improving risk-based audit is a cost-effective way of raising revenue and improving the efficiency and fairness of the tax system.

- Consistent with good public finance and the Journey to Self-Reliance.

Risk-based audit is broader than identifying returns that can be expected to generate the most amount of audit revenue.

- Risk-based audit involves managing tax compliance in the population and changing behaviors.

Risk-based audit requires consideration of:

- Revenue in the current year AND future years, which means that the behavioral effects of the audit policy may be relevant and important.
- The economic enterprise may be broader than the entity reported on the tax return and need a more holistic view.

# Risk-based Audit in Practice

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The tax authority does not have complete information.

- The risk-based audit system could reduce institutional risk and identify emerging issues by adopting a random element in selection.
- There should be some monitoring, evaluation, and feedback mechanism to improve the efficacy of the process over time.
- Poor data quality hurts the effectiveness of risk-based audit.

Enterprise data structures suggest that it is possible to access all of an entity's relevant data and its structure in real time.

- This opens up significant opportunities for alternative approaches (i.e., deterministic as opposed to statistical) to risk-based audit.

# Cash Management Systems

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## ICGFM

Beyond selection of audits, cases need to be managed.

- Audit cases are assigned to auditors.
- Cases may be segregated between desk audit (issue oriented) and field audit.
- Results of audit must be tracked against appeals.

Resources spent on audit and the efficiency of audit cases must be measured.

- To measure resource usage, time of auditors spent on cases must be tracked.

# Applying Advanced Methods

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## ICGFM

The presentation highlighted issues associated with the implementation of risk-based audit systems in Guatemala and El Salvador.

- The importance of establishing institutions and policies to support risk-based audit.
- Difficulties of addressing institutional change.

Are there opportunities to apply more advanced methods in developing countries?

- While some analytic approaches may seem irrelevant to implementation of risk-based audit systems in developing countries, there is value in having a clear idea of where you are going in order to develop an implementation plan that moves one incrementally in that direction.



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