Benchmarking of Tax Administrations

Report of the EUROSAI Study Group

Technical Note

March 2008
Report of the EUROSAI Study Group on Benchmarking of Tax Administrations

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Appendix 1 – Methodology

The EUROSAI Congress in Bonn in May/June 2005 recommended that EUROSAI members should be encouraged to exchange benchmarking information, definitions and criteria to enable them to compare internationally the costs and performance of tax administrations. The UK Chair this Group with support from Finland, France, Poland and Sweden as active members of the Study Group.

1 Initial research and discussion of themes by Study Group

The Group met regularly to review existing research and information held by EUROSAI members and other bodies including the wider international community, to discuss themes and categorisations of indicators and to identify good practice examples.

2 Research paper on benchmarking of tax administrations – RAND Europe

The Group commissioned RAND Europe, an independent research organisation, to undertake a wider review of performance indicators used by a range of tax administrations. They drew upon information supplied by the Study Group on performance and costs in Finland, France, Poland, Sweden and the UK and also examined Australia, Canada, the Czech Republic, Germany and the United States. They also reviewed work produced by other international organisations such as the World Bank and the OECD.

3 Analysis of OECD data

The Group drew upon the data and analysis in the OECD Report “Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2006)” published in February 2007. Representatives from the OECD attended a meeting, presented their report’s findings and provided their perspectives on the Group’s analysis.

4 Survey to EUROSAI members

The Group developed a survey (Appendix C) with the aim of collecting information on the structure and function of tax administrations, the use of performance indicators and actual performance information on quality and service and the administration of VAT. The group sent the survey to all EUROSAI member countries in November 2006. Over seventy per cent of Audit institutions in EUROSAI countries returned completed questionnaires. The Study Group would like to thanks EUROSAI members and their respective tax administrations for their assistance in gathering the data for this report.

5 Performance indicator categorisation and analysis

The Group used information from their tax administrations, the RAND report, the OECD report and the survey to develop a categorisation of performance indicators and a framework for further analysis.
6 Cluster analysis

The Group developed a method of enabling the comparison of the costs and performance of tax administrations by putting tax administrations with similar characteristics into ‘clusters’ to assist comparisons. Clusters of tax administrations can be defined on the basis of certain similarities in organisation, remit or approach in order to enable international comparisons.

Cluster analysis has been used as a simple method to allow countries to benchmark their performance against other countries with similar characteristics. The Group aimed to provide an example of how clustering could enable comparison by isolating the effect of a particularly strong variable such as organisational set-up of the tax administration. Clustering can be done using any variable and would allow comparisons between tax administrations with similar characteristics. A similar analysis can be done to allow comparisons of tax administrations with differences in a particular independent variable, for example comparing the performance of tax administrations with one tax body with those which have more than one body administering tax.

A more statistically rigorous analysis was not possible at this stage due to a lack of appropriate data. The Group recognises that with larger data sets and perhaps working within clusters to understand the variations in performance, the analysis can be further extended to encompass univariate or multivariate analysis to isolate the effects of particular variables on performance.

7 Benchmarking in practice using VAT information

The Group used actual performance information collected through the EUROSAI survey to compare the performance of tax administrations within the defined clusters.
EUROSAI Benchmarking of Tax Administrations

Appendix 2 – EUROSAI Survey

Section 1 – Your tax administration system

1. Does your tax administration collect social security contributions? Yes ☐ No ☐
2. Does your tax administration also administer customs duties? Yes ☐ No ☐
3. Is there only one organisation in your country that administers taxes? Yes ☐ No ☐
   If more than one, please specify how many __________
4. Does your tax authority also perform non-tax functions (e.g. collection of non-tax debts)? Yes ☐ No ☐
5. Does your tax authority use shared internal support functions (e.g. HR, Finance, IT) with other government departments/agencies? Yes ☐ No ☐

Section 2 – Your tax administration system’s use of Performance Indicator

6. Does your tax administration system have Performance Indicators covering:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Partial</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cost</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Quality of Service</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (please specify below)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please insert text…

7. How many performance indicators (both relating to the specified headings and additional) does your tax administration use to report on its performance?

0-5 ☐ 6-25 ☐ 26-100 ☐ Over 100 ☐

8. Can you select three performance indicators which you find the most useful when assessing the performance of your country’s tax administration, in terms of being measurable, time-related and comparable (see examples in Table 1 and in RAND report):

Indicator 1 Category: Compliance ☐ Cost ☐ Quality of Service ☐ Other (please specify) ☐

Please insert text…Indicator 1
Section 3 – Performance Information

9. To illustrate how benchmarking may be done, we request specific performance information from your tax administration (please specify reporting period e.g. Jan-Dec 2005 and provide the latest available information) and a definition of how the indicator is calculated:

Quality of Service (overall):

a) Overall quality of service customer satisfaction rating (plus definition)

b) Percentage of telephone callers whose calls are dealt with successfully (plus definition)

Compliance (VAT):

a) Percentage of VAT returns filed on time (plus definition)
EUROSAI Benchmarking of Tax Administrations

b) Outstanding VAT debt at year end (plus definition)

Please insert text...

c) Annual gross VAT yield (plus definition)

Please insert text...

d) Annual net VAT yield (plus definition, for example gross VAT yield - repayments)

Please insert text...

e) Number of VAT returns received (plus definition)

Please insert text...

Cost (VAT):

a) Percentage of VAT returns filed online/electronically (plus definition)

Please insert text...

b) Percentage of VAT returns filed online/electronically on time (plus definition)

Please insert text...

c) Total cost of administering VAT (plus definition)

Please insert text...

d) Total staff cost of administering VAT (plus definition)

Please insert text...

Appendix 3 – EUROSAI survey overall results
Survey aim

1. To gather information from EUROSAI members about the performance indicators used by the tax administrations in their countries, and collect specific information to illustrate benchmarking in practice and the challenges faced. This is to be used to compile set of benchmarking information to enable members to compare the costs and performance of tax administrations.

High level results for our EUROSAI survey

2. We initially piloted the survey among EUROSAI members on the steering committee, and then circulated it to all 46 EUROSAI members in November 2006. We asked each member to confirm data with their tax administration to complete the questionnaire; the VAT data was reconfirmed with each member before the final analysis was undertaken. All the data collected was collated on a database to assist the analysis process.

3. The questionnaire consisted of three core sections
   - Section One was aimed at gathering general information about tax administrations.
   - Section Two sought to identify the performance indicators tax administrations routinely use to measure performance, with the aim of seeking good examples by EUROSAI members.
   - Section Three collected specific data about VAT; to use as an example to benchmark tax administrations in their administration of VAT.

Responses

4. The questionnaire was sent to 46 countries in November 2006.

![Response Chart]
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Results

5. Tax Administration Systems

**Question 1**: Does your tax administration collect social security contributions?

**Question 2**: Does your tax administration also administer customs duties?

### Tax Administration Systems

- **Question 1**: Does your tax administration collect social security contributions?
- **Question 2**: Does your tax administration also administer customs duties?

#### Analysis of Questions 1 & 2

**Collects social security contributions**
- Albania
- Bulgaria
- Croatia
- Finland
- Hungary
- Kazakhstan
- Norway
- Russia
- Slovenia
- Sweden
- (Both)
  - Denmark
  - Estonia
  - Holland
  - Latvia
  - Republic of Moldova
  - UK

**Administers customs duties**
- Austria
- Belgium
- Cyprus
- France
- Greece
- Lithuania
- Poland
- Portugal
- Spain

**Neither**
- Czech Republic
- Germany
- Iceland
- Italy
- Republic of Azerbaijan
- Republic of Macedonia
- Slovakia
Question 3: Is there only one organisation in your country that administers taxes? Question asked to relate single/multiple organisations to cost, efficiency and performance.

- More than one: 21 (66%)
- One organisation: 11 (34%)
**Question 4**: Does your tax authority also perform non-tax functions? Question asked to relate scope of duties to cost, efficiency and performance.

- **Yes**: 24 (77%)
- **No**: 7 (23%)

**Question 5**: Does your tax authority use shared internal support functions (e.g. HR, Finance, IT) with other government departments/agencies? Question asked to relate organisational structure to cost, efficiency and performance.

- **Yes**: 14 (45%)
- **No**: 17 (55%)
Tax Administration System’s use of Performance Indicators

**Question 6:** Does your tax administration system have Performance Indicators covering
- Compliance
- Cost
- Quality of Service
- Other?

- Question asked to assess common areas being monitored
- Diagram produced for those countries answering ‘Yes’ not ‘Partial’
- ‘Other’ category can be in addition to Cost, Compliance and Quality of Service

**Response = “Yes” for monitoring the below categories**

- Compliance: Austria, Belgium, Bulgaria, Hungary, Iceland, Kazakhstan
- Cost: Albania, France, Holland, Italy, Latvia, Norway, Portugal, Republic of Azerbaijan, Slovakia, Sweden, Finland, UK
- Quality of Service: Czech Republic, Estonia, Lithuania
- Other: Belgium, Bulgaria, Croatia, Czech Republic, Estonia, France, Holland, Hungary, Kazakhstan, Latvia, Lithuania, Norway, Poland, Republic of Moldova, Slovakia, Sweden, UK
**Question 7:** How many performance indicators does your tax administration use to report on its performance?

- Question asked to assess the scale of targeted performance measures in each country.
- Possible misrepresentation with sub-categories

### Appendix 4 – Cluster Analysis

```plaintext
Below 25
11 (37%)

26 - 100
15 (52%)

Over 100
3 (10%)
```
### Selected variables to define clusters

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT collected/Total tax collected</td>
<td>OECD Report - Table 22: Tax Structure – Major Taxes/Total Country Taxation – 2003 (%)</td>
</tr>
<tr>
<td>Registered VAT population</td>
<td>OECD Report – Table 30: Comparison of Registered Taxpayer Populations</td>
</tr>
<tr>
<td>Number of activities carried out by the country’s tax administration</td>
<td>EUROSAI survey responses</td>
</tr>
<tr>
<td>Number of tax bodies in the country</td>
<td>EUROSAI survey responses</td>
</tr>
<tr>
<td>Score for range of performance indicators</td>
<td>EUROSAI survey responses</td>
</tr>
</tbody>
</table>

### Performance information collected through the EUROSAI survey

<table>
<thead>
<tr>
<th>Performance information collected through the EUROSAI survey</th>
<th>Performance indicator category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of VAT returns filed on time</td>
<td>Compliance</td>
</tr>
<tr>
<td>The ratio of outstanding VAT at year end to net annual VAT yield</td>
<td>Compliance</td>
</tr>
<tr>
<td>Percentage of VAT returns filed online</td>
<td>Cost</td>
</tr>
</tbody>
</table>

The 18 graphs below show a visual analysis of the three measures of performance, with respect to the six clusters which have been used to stratify the respective populations. **The graphs display both the minimum and maximum values for each cluster, as well as the median result for that population.**

![Graph showing proportion of VAT returns filed on time against VAT as a proportion of total tax revenues](image-url)
Proportion of VAT that is outstanding (debt ratio) against VAT as a proportion of total tax revenues

Proportion of VAT returns filed online against VAT as a proportion of total tax revenues
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Proportion of VAT returns filed on time against VAT population

- VAT population <0.8m: 99.40, 93.20, 60.00
- VAT population ≥0.8m: 98.64, 92.60, 85.00

Proportion of VAT that is outstanding (debt ratio) against VAT population

- VAT population <0.8m: 21.17, 14.07, 0.59
- VAT population ≥0.8m: 43.28, 3.71, 8.67
Proportion of VAT returns completed online against VAT population

<table>
<thead>
<tr>
<th>VAT population &lt;0.8m</th>
<th>VAT population ≥0.8m</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.00</td>
<td>37.00</td>
</tr>
<tr>
<td>4.90</td>
<td>18.68</td>
</tr>
<tr>
<td>0.28</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Proportion of VAT returns filed on time against VAT as proportion of GDP

<table>
<thead>
<tr>
<th>VAT &lt;8% of GDP</th>
<th>VAT ≥8% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.40</td>
<td>96.10</td>
</tr>
<tr>
<td>94.57</td>
<td>92.20</td>
</tr>
<tr>
<td>82.70</td>
<td>60.00</td>
</tr>
</tbody>
</table>

% VAT returns filed online

% VAT returns filed on time
Proportion of VAT that is outstanding (debt ratio) against VAT as proportion of GDP

| VAT < 8% of GDP | 43.28 | 3.71 | 0.59 |
| VAT ≥ 8% of GDP | 11.40 | 35.29 |

Proportion of VAT returns completed online against VAT as proportion of GDP

| VAT < 8% of GDP | 32.15 | 0.28 | 55.50 |
| VAT ≥ 8% of GDP | 5.20 | 100.00 | 100.00 |

VAT ≤ 8% of GDP
VAT ≥ 8% of GDP
EUROSAI Benchmarking of Tax Administrations

Proportion of VAT returns filed on time against number of activities

- 3 or more activities: 99.79, 93.60, 82.10
- Less than 3 activities: 99.40, 82.70, 60.00

Proportion of VAT that is outstanding (debt ratio) against number of activities

- 3 or more activities: 0.59, 11.00, 47.37
- Less than 3 activities: 2.01, 17.17, 80.63
Proportion of VAT returns completed online against number of activities

- **3 or more activities**
  - Proportion: 34.08%
  - VAT returns filed online: 100.00%
- **Less than 3 activities**
  - Proportion: 19.50%
  - VAT returns filed online: 0.00%

Proportion of VAT returns filed on time against number of tax bodies

- **2 or more tax bodies**
  - Proportion: 99.79%
  - VAT returns filed on time: 92.60%
- **1 tax body**
  - Proportion: 98.64%
  - VAT returns filed on time: 93.20%
Proportion of VAT that is outstanding (debt ratio) against number of tax bodies

- Debt ratio %
  - 0.59
  - 17.17
  - 47.37
  - 80.63

- Number of tax bodies
  - 2 or more
  - 1 tax body

Proportion of VAT returns completed online against number of tax bodies

- % VAT returns filed online
  - 0.00
  - 37.00
  - 100.00

- Number of tax bodies
  - 2 or more
  - 1 tax body
Proportion of VAT returns filed on time against performance indicators

- PI ≤ 1.5: 98.00, 93.20
- PI > 1.5: 99.79, 92.60

Proportion of VAT that is outstanding (debt ratio) against performance indicators

- PI ≤ 1.5: 2.78, 11.37
- PI > 1.5: 0.59, 15.62
Proportion of VAT returns completed online against performance indicators

\[ \text{Proportion of VAT returns completed online} = \frac{\text{Number of VAT returns filed online}}{\text{Total number of VAT returns}} \]

PI ≤ 1.5

\[ \text{PI} = \frac{73.00}{100.00} = 0.73 \]

PI > 1.5

\[ \text{PI} = \frac{36.00}{100.00} = 0.36 \]

End of Technical Note