Chapter 5

Resources of national revenue bodies

This chapter provides summary operational and trend-related data (for some data items for up to nine years) and related analyses concerning the resources used for tax administration in surveyed revenue bodies and, where applicable, other revenue body roles. It also includes some brief comments concerning the use of third parties to provide critical services and support to revenue bodies for the administration of tax laws.

Key points

Government mandates to cut costs of operations

- Revenue bodies in many countries have mandates to cut their administrative costs as part of fiscal consolidation efforts, for some requiring significant downsizing (e.g. Australia and United Kingdom).

Aggregate salary and IT costs

- Aggregate salary costs as a share of aggregate administrative costs vary widely across revenue bodies, generally within a band ranging from 50% to 90%; this outcome appears to result from a variety of factors (e.g. the extent of outsourcing and IT investments, and the treatment of accommodation costs).
- Viewed over a seven year period (2007-13), aggregate salary costs as a share of aggregate administrative costs for OECD countries have averaged around 72%.
- IT-related costs (both salary and other administrative costs) are a significant component of the overall expenditure budget of many revenue bodies; across all revenue bodies, total IT-related costs were reported by 16 revenue bodies as exceeding 15.0% in 2013 (including 6 that reported over 20%) of total administrative expenditure.
- Revenue bodies reporting consistently high levels of IT expenditure (as a share of total expenditure) tend to perform highly across a series of performance-related measures reported in other parts of this series (e.g. e-filing (Tables 7.3 to 7.5), e-payment (Table 7.6), average staffing (Table 5.6), total administrative costs/GDP (Table 5.5), total costs/net revenue (Table 5.4), and debt levels (Table 6.14).

Expenditure and staffing-related ratios

- Cost of collection ratios that have traditional been used internationally to draw conclusions on relative efficiency and effectiveness vary widely across surveyed revenue bodies, significantly influenced by structural and other factors unrelated to relative efficiency and effectiveness. For this reason they needed to be interpreted with considerable care and used only as a pointer to further inquiry.
- A statistically significant upwards movement in the ratio occurred in 2009 for the majority of revenue bodies, in the aftermath of the global financial crisis in 2008 that led to a serious deterioration in tax revenues in many countries; the trend for many countries from 2010 to 2013 shows a consistently declining ratio as the tax revenue bases of countries recovered following the global financial crisis and/or taking account of government expenditure reduction programmes.
- The computed ratios for tax-related expenditure as a proportion of GDP vary significantly but there is a concentration of revenue bodies with a ratio in the region of 0.15% to 0.25% of GDP for most/all of the period covered; a few revenue bodies consistently show a ratio in excess of 0.3% which may be due to efficiency-related factors.
- Staffing ratios (e.g. number of citizens or labour force members/FTE) vary enormously across OECD countries due to structural and efficiency-related factors.
- There are significant variations in the relative distribution of staff resources across key functional groups, more than likely resulting from a complex mix of factors, and point to the need for substantial care when interpreting the data in a comparative way.

Third party delivery of tax administration-related activities

- Revenue bodies use a large variety of third parties for the delivery and support of tax administration operations, including the provision of IT services, the collection of tax payments, the answering of (simple) inquiries, for the provision of HR administrative support services, and to collect tax debts.

The resources of national revenue bodies

The overall level of resources devoted to tax system administration is an important and topical issue for many governments, their revenue bodies, and external observers. All governments have limits on the funds at their disposal for public sector administration (including for revenue bodies) and many are actively seeking to reduce public sector costs. For their part, revenue bodies must decide how to make optimal use of the funds allocated to them to administer the laws in the most efficient and effective manner. As noted earlier in this series, most revenue bodies have some flexibility in deciding how their available funding is used for carrying out their responsibilities. Where this flexibility exists, resource allocation can be a critical part of planning, enabling resource shifts to be made to meet newly emerging priorities.

This chapter provides a relatively detailed account of the aggregate resource allocations made to revenue bodies to carry out their mandate, an array of comparative analyses and trend data, and some insights on expected developments in staffing, in particular for those revenue bodies where Government decisions have been taken to improve efficiency and/or downsize operations. Various ratios are presented as some of these are used regularly in international comparisons of tax administration systems.

Given the "comparative" nature of this series, every effort has been made to validate the accuracy of the information reported by revenue bodies and used in the series, and for some countries this has entailed revisions of historical data and ratios published in previous editions of this series that have now been revised. Recognising that some revenue bodies also perform various "non-tax roles", steps have also been taken with the assistance of participating revenue bodies to quantify their resource impact and to exclude them from relevant tabulations in order to present tabulations and ratios etc., that prepared on a comparable basis (or as near to as practicable). For the reasons outlined, considerable care should be taken when interpreting this information presented and in drawing any conclusions as to the relative efficiency and effectiveness of the individual revenue bodies identified.

Impacts of recent Government decisions on revenue bodies' budgets

At the time of planning the preparation of this edition, it was known that governments in many countries were taking steps to reduce their public sector wage costs, in some cases by fairly significant amounts. As large employers, revenue bodies are prime targets for such expenditure reduction efforts and, depending on their scale, these may present significant challenges for maintaining service delivery standards and compliance programmes, not to mention a myriad of staff management issues. The survey accordingly sought brief details of any major "downsizing"/expenditure reduction policies that were in place to gain some insight as to their scale and how they were being realised. A brief summary of the responses is set out in Table 5.1.

Of particular note, a number of revenue bodies in surveyed countries are subject to significant downsizing mandates that will impact in 2014 and beyond, for example:

- ***Australia:*** Around 3 000 staff in 2014 (of a total of 20 200 in 2013).
- ***Finland:*** Over 200 FTEs in each of 2014 and 2015 (of a total of 5 100 FTEs in 2013), continuing a downwards trend observed in prior series that has seen reductions between 2007 and 2013 of around 14%.

Table 5.1. **Government downsizing/staff reduction programmes**

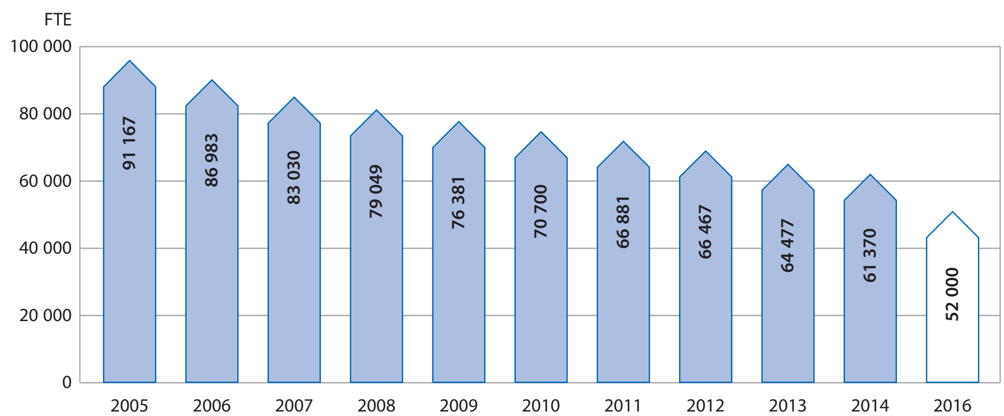
(Table only includes revenue bodies from countries reporting that specific reductions are required)

Country	Scale of required reductions and related timeframes
OECD countries	
Australia	By 30 June 2014, a reduction of 900 staff; and by 31 October 2014, a further reduction of 2 100 staff.
Belgium	A range of changes are to be made that will entail the transfer of staff from the Federal level to the Regions
Canada	Measures announced in the 2012 and 2013 federal budgets, when fully implemented, will result in the CRA realising efficiencies of CAD 313.7 million annually. The Federal Budget 2013 also announced that departments would realise savings of 5% on public service travel, on an ongoing basis, with the CRA's contribution being CAD 2.1 million.
Denmark	Progressive declines in total budget expected, from around DKK 5.1 billion (2013) to DKK 4.5 billion (2017)
Finland	Reductions of 4.4% required in both 2014 and 2015, and around 2% after 2015.
France	The Finance Bill for 2014 requires a net decrease of the DGFIP's overall staffing (around 60% of which is devoted to tax administration) by 1 988 FTEs. The following measures have been taken to limit the impact of this staff reduction in local services: *(1)* In terms of staff reductions headquarters will proportionally contribute more than local services; *(2)* a higher contribution to staff cuts has been requested from management services and other services which are not in direct contact with taxpayers; and *(3)* in order to limit the compression on the lowest category of staff, the proportion of the upper category regularly increases in order to reach an equivalent level compared to other categories. An equivalent proportion for each management level will be involved in this compression policy this year. In parallel, additional staff allocation has been granted to services in charge of the fight against tax fraud. In 2014, 50 additional jobs have been allocated to tax audit.
Germany	Some Länder (i.e. regional government) have long term goals along these lines, however with a different focus.
Ireland	Revenue staff numbers have been reduced since 2008 in line with the current Government policy to reduce public sector numbers. Revenue's Employment Control Framework (ECF) figure for 2014 is 5 748. Current staff levels are in line with the ECF.
Israel	Reduction of 1.3% in 2014 (none in prior year)
Italy	With the integration of the Real Estate and Land Registry into the main revenue body, managerial posts in the support areas of administration, personnel management, internal control and communications have been rationalised and provided for savings of 363 managerial posts.
Mexico	5% expenditure reduction is expected to impact staffing costs
Netherlands	NTCA has to achieve savings of 400 million euros per annum by 2016; it has chosen not to reduce staff but to reduce the number of buildings and to concentrate work streams.
New Zealand	No specific reductions prescribed but strong Government focus on expenditure rationalisation and increased efficiency applies to all agencies. Government's focus is on "Better Public Services" through cross-government collaboration and optimising internal processes and it has set a cap on the size of core government administration across the public service.
Portugal	Government wide programme to terminate employment of less qualified staff by mutual agreement from 2013 – 33 lost from revenue body at the end of 2013.
Slovenia	Government requires 1% reduction of employees per year in public sector. Revenue body will achieve it share by natural attrition.
Spain	General rationalisation programme for the whole of the public sector that includes reduction of staff plans, but excludes staff devoted to dealing with fraud.
United Kingdom	GBP 1.2 billion savings over the period 2010-11 to 2015-16, with some of this being reinvested back into tackling non-compliance. Staff reduction of around 14 000 over this period, reaching around 52 000 FTEs by the end of March 2016.
United States	Budget reductions for 2014 require IRS to reduce FTEs to 84 268, compared to 89 857 in 2013.
Non-OECD countries	
Cyprus	Nothing specific reported for revenue body, but Government decision to reduce public sector staffing by 4 500 by 2016.
Romania	No specific cuts but major restructuring project commenced to minimise direct contact with the taxpayer, providing taxpayer service through the use of a robust self-service website, through an accessible call centre, and other means. Once the project will be completed, NAFA staff will be properly trained and distributed across the organisation, with a focus on staff re-assignment to key areas such as audit and debt collection. (extract from NAFA modernisation project presentation)
Russia	A programme for downsizing was announced in 2011. The initial plan was to reduce tax administration staff by 20 %, from 172 490 to 137 563. This staff reduction was initiated due to major reforms in technology for date capture, document dispatch and data processing operations in the FTS. By the end of the programme that was set for the 2013 year FTS had managed to reduce staff by 10%.

Source: Tax Administration 2015 survey responses.

- ***Russia:*** A staffing reduction target of 20%, equivalent to around 35 000 FTE was set in 2011; by the end of 2013, roughly 10% of the reduction had been achieved.
- ***United States:*** A reduction of over 5 000 FTEs in 2014, compared to use of almost 90 000 FTEs in 2013.
- ***United Kingdom:*** At the end of March 2013, staffing of around 63 000 FTEs and to be reduced to around 52 000 by March 2016, continuing a significant downwards trend that has been occurring over the last 8 years and with more still to come – see Figure 5.1.

Figure 5.1. **HMRC staffing levels 2005 to 2016**



Note: Historic years adjusted for UK Border Agency and Serious and Organised Crime Agency departures.

Source: United Kingdom HMRC Business Plan 2014-16.

Overall tax administration expenditure

This section focuses on the aggregate level of expenditure of revenue bodies (for all categories of expenditure) to carry out their tax and other mandated responsibilities. For comparison purposes, efforts have been made to separately identify the resources used (and costs of) tax and non-tax related functions. A number of ratios are used to make comparisons across surveyed bodies countries – where relevant, any known abnormal factors influencing the ratios for individual countries are also identified.

Separate expenditure information is also provided in respect of information technology (IT) operations and human resource management (HRM), *covering both tax and non-tax responsibilities*. For these areas of revenue bodies' operations, the survey sought data concerning: *(1) Information technology operations:* Actual or estimated costs of providing *all* information technology support for administrative operations; and *(2) Human resource management functions:* Actual or estimated costs of providing *all* human resource management support functions (e.g. personnel, payroll, recruitment, learning and development) for administrative operations.

Aggregate Tables A.4 to A.6 (refer Annex A of this series) set out a variety of expenditure/resource usage data, for some categories covering up to nine years (2005 to 2013), including aggregate data reported by revenue bodies in prior series. Table 5.2 sets out relative aggregate salary expenditure data for all years to display trends, while Table 5.3

Table 5.2. **Salary expenditure/total expenditure for tax administration and support functions**

	Salary expenditure/total expenditure for all tax administration and support functions (%)						
Country	2007	2008	2009	2010	2011	2012	2013
OECD countries							
Australia	71.3	59.6	62.3	62.1	63.1	64.8	62.5
Austria	82.2	63.2	67.5	80.0	80.3	82.8	83.8
Belgium	81.7	81.9	81.7	82.9	81.4	80.1	79.6
Canada	77.0	77.2	78.9	76.7	77.8	77.7	76.3
Chile	78.1	78.4	80.3	81.8	83.3	83.3	86.3
Czech Republic	78.7	60.3	59.8	81.7	72.1	n.a.	n.a.
Denmark	68.5	n.a.	n.a.	n.a.	n.a.	62.9	60.9
Estonia	75.9	76.5	77.3	78.4	76.5	77.3 /1	76.0 /1
Finland	65.2	64.9	64.4	65.6	64.5	64.1	64.8
France	79.1	81.3	81.1	81.5	80.8	79.3	79.9
Germany	83.3	83.7	82.3	81.3	81.6	81.3	79.2
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hungary	80.0	61.6	71.4	48.5	51.7 /1	57.9 /1	52.4 /1
Iceland	n.a.	53.6	52.7	65.6	69.4	68.6	68.9
Ireland /1	71.5	68.5	71.7	72.6	74.9	74.3	73.3
Israel	n.a.	87.5	87.9	68.2	68.3	59.7	60.9
Italy /1	69.5	56.5	56.4	54.4	55.6	57.1	58.5
Japan	81.1	80.7	80.8	80.5	80.7	81.4	81.0
Korea	66.5	64.0	63.6	61.9	64.4	68.1	68.2
Luxembourg	81.5	80.0	81.3	83.3	82.1	82.8	81.0
Mexico	82.5	82.4	83.1	88.9	85.2	82.1	78.1
Netherlands	64.0	65.5	67.1	70.6	72.0	74.8	73.2
New Zealand	63.0	62.5	64.3	59.9	59.2	55.3	55.0
Norway /1	63.1	64.0	65.2	66.4	68.5	67.2	67.3
Poland	71.8	71.7	72.8	80.4	81.7	68.9	68.7
Portugal	79.4	79.0	81.0	81.9	80.3	86.2	82.9
Slovak Republic	49.6	n.a.	n.a.	50.9	44.8	72.2	68.7
Slovenia	68.5	68.4	68.3	65.7	66.3	64.0	64.9
Spain	67.1	68.5	73.1	71.7	72.2	71.4	72.8
Sweden /1	69.6	65.3	69.0	69.5	68.4	70.5	70.1
Switzerland	90.6	90.6	89.4	94.0	92.6	81.9	81.9
Turkey	68.4	67.6	66.1	71.2	71.7	67.4	68.3
United Kingdom	61.2	58.8	55.2	54.4	57.1	58.8	58.0
United States	71.5	70.4	71.5	71.6	72.9	73.3	73.7
OECD ave. (unw.)	72.9	70.8	71.9	72.0	71.9	71.8	71.2
Non-OECD countries							
Argentina	94.2	94.7	95.3	95.8	96.9	95.9	95.2
Brazil /1	n.a.	n.a.	n.a.	60.1	59.8	69.3	69.3
Bulgaria	76.0	76.6	85.1	81.7	80.6	83.3	82.9
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Colombia	n.a.	n.a.	n.a.	76.4	75.8	74.3	69.6
Costa Rica	------------------------Not covered by the series for these years----------------------------					68.8	74.3
Croatia	------------------------Not covered by the series for these years----------------------------					57.3	57.2
Cyprus	n.a.	n.a.	78.1	81.4	81.8	82.5	81.2
Hong Kong, China	n.a.	n.a.	n.a.	86.6	88.9	88.0	86.4
India	n.a.	57.5	65.5	66.0	61.3	57.7	58.6
Indonesia	n.a.	31.7	37.3	65.0	50.5	31.1	31.5
Latvia	61.5	72.4	68.9	58.6	65.6	68.1	68.6
Lithuania	68.6	73.1	77.8	79.9	78.9	76.8	79.0
Malaysia	67.3	51.2	39.2	79.2	82.4	75.4	78.4
Malta	66.7	66.7	60.0	65.7	75.3	70.0	65.0
Morocco	------------------------Not covered by the series for these years----------------------------					n.a.	n.a.
Romania /1	76.5	85.9	97.1	n.a.	n.a.	75.1	84.8
Russia	n.a.	66.5	68.2	74.4	71.8	66.6	69.3
Saudi Arabia	82.8	80.9	79.2	n.a.	n.a.	n.a.	n.a.
Singapore	58.2	58.9	55.0	52.8	55.3	56.7	54.0
South Africa /1	60.6	61.8	57.7	n.a.	n.a.	66.9	66.9
Thailand	------------------------Not covered by the series for these years----------------------------					63.5	62.8

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 196.
Source: Tax Administration 2015 survey responses.

displays relative total expenditure attributable to the use of IT (2009 to 2013), and HRM expenditure (2010 to 2013). The key observations are as follows:

Aggregate salary expenditure

- Aggregate salary costs vary widely, falling within a band of 50-90% of aggregate administrative costs for the vast majority of revenue bodies.
- Viewed over a seven year period (2007-13), aggregate salary costs as a share of total administrative costs for OECD countries have averaged around 72%.
- The factors that result in some revenue bodies reporting relatively high aggregate salary costs (e.g. Argentina, Chile, Hong Kong, Portugal, and Romania) have not been individually identified; however, general experience points to a number of possibly contributing factors, including the non-attribution of accommodation and/or IT services that are funded by other arms of Government and relatively low IT investments.
- The factors that lead to revenue bodies reporting relatively low aggregate salary costs (for example, by Hungary, Malta, New Zealand, Singapore and United Kingdom) have not been individually identified but these may result from a range of factors including the significant use of third party service approaches (e.g. the provision of IT infrastructure and related support and the collection of tax payments) as seen in many countries – see Table 5.8 – and full charging of accommodation costs, including costs of unused accommodation resulting from staff downsizing.

Information technology (IT) expenditure

- Reported IT-related costs also vary enormously in their relative magnitude which may result from a variety of factors (e.g. low real investment in IT, sharing of IT costs with other parts of MOF, and errors and inconsistency across revenue bodies in properly classifying IT-related expenditure for this survey) – see Tables 5.3 and A.4.
- Notwithstanding the wide variation, IT-related costs (i.e. salary and other administrative costs) are a significant component of the overall expenditure budget of many revenue bodies; across all revenue bodies, total IT-related costs were reported by 16 revenue bodies as exceeding 15% of total expenditure in 2013 (with 6 reporting amounts in excess of 20%).
- Viewed over the five year period (2009-13), average IT costs for all OECD revenue bodies countries are reported fairly consistently at around 11-12% of total revenue body expenditure; for non-OECD countries, the average investment in IT appears to be much lower although there are some notable exceptions (e.g. Brazil, Croatia, Latvia, and Singapore).
- Of the 13 revenue bodies (in both OECD and non-OECD countries) reporting IT expenditure over 15% in three or more years of the five year period covered by the series generally perform favourably across a series of performance-related measures reported in other parts of this series (i.e. e-filing [Tables 7.3 to 7.5], e-payment [Table 7.6], total administrative costs/GDP [Table 5.5], and total costs/net revenue [Table 5.4], and average staffing [Table 5.6]).[1] (See summary of measures overleaf.)

Country	Efficiency-related indicators				
	Overall e-filing rates (for PIT, CIT, and VAT)*	Electronic payment rates*	Average staffing ratio*	Total costs/ GDP**	Costs/ net revenue**
Australia	✓✓	✓✓	✓	✓	✓
Austria	✓✓	✓✓	✓	✓	✓✓
Brazil	✓✓	✓	✓✓	✓	✓
Denmark	✓✓	n.a.	x	x	✓✓
Finland	✓	✓✓	✓	✓	✓
Iceland	✓✓	n.a.	✓✓	✓	n.a
Netherlands	✓✓	✓✓	x	xx	✓
New Zealand	✓	✓✓	✓✓	✓	✓
Norway	✓✓	✓✓	x	✓	✓✓
Singapore	✓✓	✓✓	✓✓	✓✓	✓✓
Sweden	✓✓	✓✓	✓	✓	✓✓
United Kingdom	✓✓	✓✓	✓	x	✓✓
United States	✓	✓	✓✓	✓✓	✓✓

Ratings: * ✓✓ above average ✓ average **x** below average **xx** well below average

** ✓✓ very favourable ✓ favourable **x** unfavourable **xx** very unfavourable

- Revenue bodies in OECD countries appear to be making far greater investments in their use of IT, relatively speaking, compared to non-OECD countries; from the data in Table 5.3, it will be seen that 11/34 OECD (roughly one-third) made IT investments over 15% in three or more years of the five year period covered by the series while for non-OECD countries the corresponding number was two of twenty-two.
- There are five revenue bodies in OECD countries with relatively high investments in staffing and relatively low reported investments in IT that, with minor exceptions, perform below average in a range of efficiency-related indicators covered by the series (i.e. size of office network (Table 2.4), overall e-filing take-up rates (Tables 7.3 to 7.5), average staffing levels (Table 5.6), total administrative costs/GDP (Table 5.5), and total costs/net revenue (Table 5.4).[2]

Country	% of total costs in 2013		Efficiency related indicators				
	Salary	IT	Size of office network**	Overall e-filing rates (for PIT, CIT and VAT)*	Average staffing ratio*	Total costs/ GDP**	Costs/ net revenue**
Belgium	79.6	4.5	xx	✓✓	xx	xx	✓
France	79.9	2.9	xx	✓	x	✓	✓
Germany	79.2	6.8	xx	x	xx	x	x
Luxembourg	81.0	4.8	xx	xx	xx	x	✓
Poland	68.7	1.0	xx	xx	xx	x	x

Ratings: * ✓✓ above average ✓ average **x** below average **xx** well below average

** ✓✓ very favourable ✓ favourable **x** unfavourable **xx** very unfavourable

Table 5.3. **IT and human resource management expenditure (% of all expenditure)**

	Total IT expenditure / total revenue body expenditure %					Total HRM costs / total expenditure %			
Country	2009	2010	2011	2012	2013	2010	2011	2012	2013
OECD countries									
Australia	22.9	21.7	21.5	21.1	21.2	5.3	6.0	4.7	4.2
Austria	10.4	13.5	15.4	27.6	26.8	5.0	5.0	5.0	5.2
Belgium	7.8	6.4	6.1	5.3	4.5	n.a.	n.a.	2.2	2.1
Canada	12.6	11.3	10.5	10.5	11.1	1.9	1.9	1.5	1.6
Chile	5.2	5.6	5.7	7.4	5.3	3.2	3.4	4.1	3.7
Czech Republic	13.7	3.4	20.4	16.4	14.9	0.5	0.5	0.6	0.6
Denmark	16.2	14.5	14.8	16.5	16.9	2.1	1.9	2.3	2.4
Estonia	11.5	11.5	15.8	/1	/1	1.5	2.6	1.3 /2	1.0 /2
Finland	20.0	n.a.	27.5	27.8	26.8	n.a.	n.a.	n.a.	n.a.
France	4.2	3.6	3.6	3.2	2.9	n.a.	n.a.	2.5	2.5
Germany	6.4	6.5	6.5	6.9	6.8	1.3	1.3	1.4	1.6
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hungary	12.0	4.8	5.2	6.1	6.5	1.6	2.9	2.0	2.0
Iceland	30.4	16.4	16.8	16.1	16.7	n.a.	n.a.	n.a.	n.a.
Ireland /1	n.a.	13.6	10.2	11.8	12.7	1.3	1.4	1.4	1.3
Israel	8.8	5.0	5.2	2.4	2.9	1.3	1.2	1.6	1.4
Italy	4.9	4.6	5.2	4.8	4.9	3.8	3.9	3.8	4.3
Japan	8.3	8.5	8.6	7.1	6.9	0.0	0.0	0.0	0.0
Korea	7.6	8.8	7.1	7.7	6.6	0.7	0.7	0.7	0.7
Luxembourg /1	5.5	2.2	3.7	3.3	4.8	n.a.	n.a.	n.a.	n.a.
Mexico	3.9	4.1	4.1	4.0	4.0	1.2	1.0	0.9	0.8
Netherlands	18.1	16.2	14.2	14.9	15.5	2.5	1.9	2.1	2.2
New Zealand	19.2	24.5	22.5	18.8	18.3	1.5	1.6	1.5	1.8
Norway	21.0	21.9	20.8	24.9	27.0	2.2	2.3	1.2	1.2
Poland	2.8	1.4	1.6	0.9	1.0	0.1	0.4	0.3	0.2
Portugal	2.4	1.4	1.2	1.6	2.0	n.a.	n.a.	0.5	0.5
Slovak Republic	n.a.	8.6	15.5	11.7	17.9	0.9	0.8	1.7	1.7
Slovenia	n.a.	n.a.	n.a.	13.0	10.6	n.a.	n.a.	n.a.	n.a.
Spain /1	4.6	5.7	5.6	11.2 /1	10.8 /1	n.a.	n.a.	8.6	8.5
Sweden	19.5	16.8	17.7	17.0	19.5	n.a.	n.a.	n.a.	n.a.
Switzerland	8.9	2.0	2.6	1.3	3.3 /1	0.8	0.9	1.0	1.0
Turkey	3.6	0.8	2.2	1.9	3.6	n.a.	n.a.	n.a.	n.a.
United Kingdom	21.2	20.3	22.8	20.0	21.3	1.7	1.6	1.4	1.2
United States	14.9	15.4	15.0	15.2 /1	17.4 /1	2.0	1.8	1.7	1.5
OECD ave. (unw.)	11.6	9.7	11.1	10.9	11.3	1.8	2.0	2.1	2.0
Non-OECD countries									
Argentina /1	0.7	0.6	0.8	0.8	1.1	0.04	0.1	0.05	0.05
Brazil	n.a.	16.2	15.5	15.5	16.0	n.a.	n.a.	n.a.	n.a.
Bulgaria	n.a.	0.6	2.4	2.9	2.9	1.0	1.1	0.3	0.9
China	n.a.	n.a.	n.a.	1.9	1.9	n.a.	n.a.	n.a.	n.a.
Colombia	n.a.	3.4	3.5	6.7	5.3	1.1	1.3	n.a.	n.a.
Costa Rica	– Not covered by series in these years –			2.8	3.9	Not covered by series		n.a.	n.a.
Croatia	– Not covered by series in these years –			12.9	16.0	Not covered by series		0.4	0.4
Cyprus	n.a.	2.3	3.0	4.3	7.9	0.7	1.1	0.7	0.9
Hong Kong, China	n.a.	9.1	9.6	9.6	10.0	1.2	1.3	1.1	1.1
India	n.a.	7.0	7.1	10.3	12.0	0.1	0.3	0.6	1.0
Indonesia	n.a.	n.a.	n.a.	2.8	2.7	n.a.	n.a.	0.6	0.4
Latvia	14.8	13.3	9.8	13.5	16.0	5.4	4.8	1.5	1.2
Lithuania	6.7	7.3	7.8	9.8	9.3	1.1	0.9	0.9	0.9
Malaysia	27.5	5.9	2.4	3.0	1.9	2.7	3.0	3.8	3.5
Malta /1	7.9	0.2	0.2	0.1	0.2	0.6	0.6	0.8	0.8
Morocco	– Not covered by series in these years –			n.a.	n.a.	Not covered by series		n.a.	n.a.
Romania	n.a.	n.a.	2.7	8.8	2.8	n.a.	n.a.	0.0	0.0
Russia	5.7	5.9	6.9	7.4	7.4	1.8	1.8	1.9	2.0
Saudi Arabia	6.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	33.8	40.4	39.4	36.6	39.6	1.6	1.8	1.8	1.7
South Africa	4.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Thailand	– Not covered by series in these years –			1.3	0.3	Not covered by series		2.3	2.2

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 196.
Source: Tax Administration 2015 survey responses.

Human resource management expenditure

As relatively large employers, revenue bodies must invest fair amounts in their HRM support functions. For survey purposes, revenue bodies were asked to quantify the actual or estimated costs of providing all human resource management support functions (e.g. personnel, payroll, recruitment, learning and development) for administrative operations (incl. non-tax roles).

Table 5.3 sets out the level of expenditure for HRM functions as a proportion of all revenue body expenditure for the period 2010 to 2013 – the data should be interpreted with care owing to the possibility of misinterpretation/inconsistencies in its compilation. The key observations are:

- Data reported by 41 (of 56) revenue bodies revealed an average expenditure of around 2% on HRM functions, but there were a number of countries reporting substantially higher amounts-Australia (4-5%), Austria (around 5%), Chile (around 4%), Italy (around 4%), Malaysia (3-4%) and Spain (8.5%).
- Revenue bodies reporting a relatively high amount of HRM expenditure generally reported major changes underway or planned concerning a mix of recruitment, training, performance management and/or rewards related reforms (see Table 4.1 of Chapter 4).

Measures of relative costs of administration

The cost of collection ratio

It has become a fairly common practice for revenue bodies to compute and publish (e.g. in their annual reports) a "cost of collection" ratio as a surrogate measure of the efficiency/effectiveness of their administration. (Countries that follow this practice include Australia, Japan, Korea, New Zealand, Singapore, Slovenia, South Africa, United Kingdom, and United States.) The ratio is computed by comparing the annual costs of administration incurred by a revenue body, with the total revenue collected (after refunds) over the course of a fiscal year, and is often expressed as a percentage or as the cost of collecting 100 units of revenue. Most revenue bodies tend to publish the ratio for a number of years and, all other things being equal, changes in the ratio over time should reflect movements in relative efficiency and/or effectiveness. This arises from the fact that the ratio is derived from a comparison of inputs (i.e. administrative costs) to outputs (i.e. tax revenue collections); initiatives that reduce relative costs (i.e. improve efficiency) or improve compliance and revenue (i.e. improve effectiveness) will impact on the ratio. In practice, however, there are a number of factors that may influence the cost/revenue relationship, but which have nothing to do with relative efficiency or effectiveness. Examples of such factors are elaborated in Box 5.1. Clearly, any analysis of movements in the trend of the ratio over time should pay regard to such factors.

Box 5.1. **The cost of collection ratio as an indicator of efficiency and/or effectiveness**

Observed over time, a downward trend in the "cost of collection" ratio can constitute evidence of a reduction in relative costs (i.e. improved efficiency) and/or improved tax compliance (i.e. improved effectiveness). However, experience has also shown that there are many factors that can influence the ratio which are not related to changes in a revenue authority's efficiency and/or effectiveness:

Box 5.1. The cost of collection ratio as an indicator of efficiency and/or effectiveness *(continued)*

- **Changes in tax rates*:*** The legislated rates of tax are an important factor in determining the cost/revenue relationship. In theory, a policy decision to increase the overall tax burden should, all other things being equal, improve the ratio by a corresponding amount, but this has nothing to do with improved operational efficiency or effectiveness.
- **Macroeconomic changes*:*** Abnormal changes in rates of economic growth etc. or inflation over time are likely to impact on the overall revenue collected by the tax administration and the cost/revenue relationship. This is especially likely to occur in countries that are prone to considerable volatility in the movement of such indicators.
- **Abnormal expenditure of the revenue authority*:*** From time to time, a tax authority may be required to undertake an abnormal level of investment (e.g. the building of a new information technology infrastructure, acquisition of more expensive new accommodation). Such investments are likely to increase overall operating costs over the medium term, and short of off-setting efficiencies, will impact on the cost/revenue relationship. The introduction of new taxes may also present additional up front administrative costs that initially impact on the cost/revenue ratio, but which are dissipated over time. (The use of accrual accounting may reduce the impact of these expenditures on the cost/revenue relationship.)
- **Changes in the scope of taxes collected by a revenue body*:*** From time to time, governments decide to shift responsibility for the collection of particular taxes from one agency to another. For example, in Bulgaria, responsibility for the collection of most social contributions was moved from social security bodies to the newly formed National Revenue Authority in 2006.

As the "cost of collection" ratio takes account of total revenue collections, there has been a tendency by some observers to use it as an indicator of effectiveness. However, its usefulness in this regard is limited for one fundamental reason. The difference between the amount of tax actually collected and the maximum potential revenue is commonly referred to in tax literature as the "tax gap". Put another way, the amount of revenue collected compared with the maximum potential revenue, expressed as a percentage, is the overall level of compliance or effectiveness achieved by the tax administration. All other things being equal, initiatives that improve compliance with the laws (i.e. improve effectiveness) will impact on the cost/revenue relationship. ***However, because the cost/revenue ratio ignores the revenue potential of the tax system, its value as an indicator of effectiveness is extremely limited.*** This is particularly relevant in the context of international comparisons – countries with similar cost/revenue ratios can be poles apart in terms of their relative effectiveness.

Source: OECD CTPA Secretariat.

A summary of computed cost of collection ratios covering an extended (nine year) timeframe to highlight trends for surveyed revenue bodies is provided in Table 5.4. These ratios have been computed using data reported by revenue bodies for this and prior editions of the series. For a few countries, the ratios for years up to 2011 reported in prior editions have been revised to correct errors in source data advised by the countries concerned. *The final column of the table draws attention to various factors unrelated to the efficiency and effectiveness of the revenue body, that for the countries concerned affect one or more elements of the ratio's computation (*i.e. *expenditure and revenue) and which hinder* *direct comparability across the population of countries included in the table.* Important observations from the information reported are as follows:

- Cost of collection ratios vary widely across revenue bodies, significantly influenced by structural and other factors unrelated to relative efficiency, of the kind described throughout this series (e.g. a country's legislated tax burden and range of the taxes collected).
- A statistically significant upwards movement in the ratio occurred in 2009 for the majority of revenue bodies, in the aftermath of the global financial crisis in 2008 that led to a serious deterioration in tax revenues in many countries – examples here include Belgium, Canada, Chile, Czech Republic, France, Ireland, Japan, Latvia, Lithuania, Portugal, Russia, Spain and the United States.
- The trend for many countries from 2010 to 2013 shows a consistently declining ratio as the tax revenue bases of countries recovered following the global financial crisis and/or taking account of government expenditure reduction efforts (e.g. Australia, Austria, Argentina, Brazil, Bulgaria, Canada, Colombia, Ireland, Lithuania, Portugal, United Kingdom and United States).
- For a few revenue bodies, there has been significant downwards movement in the ratio as a result of "structural" factors (e.g. responsibilities involving the collection of new revenue streams such SSC) and for some downsizing/efficiency improvement programmes (e.g. United Kingdom).

Taken as a whole, the data presented emphasise the need for considerable care when undertaking cross-country comparisons of the cost of collection ratio in the context of assessments of relative efficiency in order to avoid erroneous conclusions. (This matter is discussed in further detail later in this chapter.)

Ratio of administrative expenditure to GDP

The relative size and trend of a revenue body's tax-related administrative expenditure over time can also be viewed by way of comparison with a country's aggregate GDP (as is the practice for observing aggregate tax burdens over a number of years). In other words, what proportion of a country's resources (expressed in terms of GDP) is expended by Government each year to administer tax laws?

Such a comparison removes the impact of changes in the legislated tax burden and economic factors that are inherent in the "cost of collection" ratio, and is particularly relevant in times of austerity when Government budgets are under strain. However, the ratio and its trend can be influenced by some abnormal factors (e.g. major new investments in technology, costs associated with implementing a new tax) that also need to be recognised. Computations of this ratio are set out in Table 5.4, with the key observations as follows:

- The ratios for tax-related expenditure as a proportion of GDP vary significantly but there is a concentration (around one-third) of revenue bodies with a ratio between 0.15-0.25 percent of GDP for much of the period reported.
- Very high ratios (i.e. greater than 0.30% of GDP) are consistently displayed for three revenue bodies (i.e. Belgium, Hungary and the Netherlands).
- Relatively low ratios (i.e. less than 0.10%) are consistently displayed for revenue bodies in nine countries (i.e. Colombia, India, Indonesia, Korea, Mexico, Saudi Arabia, Singapore, Thailand and United States); with two exceptions (i.e. Korea and United States), these are all countries with relatively low tax burdens.

Table 5.4. **Cost of collection ratios (administrative costs/net revenue collections) /1**

Country	Administrative costs for tax administration/net revenue collected % /2									Variation	Significant factors affecting comparability between countries' computed ratios
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013-08	
OECD countries											
Australia	1.04	0.99	0.93	0.95	1.00	1.05	0.99	0.98	0.93	-0.01	
Austria	0.66	0.66	0.64	0.79	0.85	0.70	0.66	0.68	0.67	-0.12	SSC not included
Belgium	1.43	1.57	1.39	1.27	1.40	1.29	1.36	1.23	1.17	-0.10	SSC not included
Canada	1.32	1.32	1.22	1.13	1.31	1.36	1.31	1.24	1.15	0.02	
Chile	0.69	0.63	0.60	0.67	0.91	0.77	0.68	0.67	0.66	-0.01	Costs exclude debt collection function
Czech Republic	1.29	1.38	n.a.	1.18	1.46	1.27	1.34	1.34	1.31	0.13	SSC and excises not included
Denmark	0.69	n.a.	0.61	0.64	0.67	n.a.	n.a.	0.56	0.48	-0.16	
Estonia /3	1.02	0.88	0.86	0.38	0.40	0.35	0.34	0.37	0.40	0.02	Costs exclude all IT support that is provided by MOF
Finland	0.78	0.79	0.77	0.80	0.88	0.84	0.80	0.79	0.75	-0.05	Excises not included
France	1.08	1.28	0.96	1.17	1.31	1.25	1.20	1.19	1.11	-0.06	SSC and excises not included
Germany	1.66	1.55	1.38	1.36	1.46	1.50	1.40	1.34	1.35	-0.01	SSC and excises not included
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Hungary	0.99	1.11	1.15	1.17	1.20	1.20	1.12	1.13	1.15	-0.02	
Iceland	n.a.	n.a.	n.a.	n.a.	n.a.	0.62	0.60	n.a.	n.a.	n.a.	Excises not included; Costs exclude debt collection
Ireland	0.82	0.78	0.79	0.95	1.08	1.26	1.14	0.87	0.85	-0.10	Costs include customs
Israel	n.a.	n.a.	n.a.	0.74	0.79	0.75	0.68	0.94	0.94	0.20	SSC not included
Italy	n.a.	n.a.	n.a.	1.08 /3	1.20 /3	0.89 /3	0.83 /3	0.89 /3	1.05 /3	-0.03	Ratio not comparable with others: see note
Japan	1.65	1.52	1.50	1.49	1.71	1.93	1.75	1.84	1.74	0.26	SSC not included
Korea	0.80	0.78	0.70	0.79	0.84	0.81	0.76	0.70	0.74	-0.05	SSC not included
Luxembourg	n.a.	n.a.	1.17	1.01	1.13	0.85	0.85	0.95	0.93	-0.08	SSC and excises not included
Mexico	1.01	0.89	0.81	0.75	0.84	0.71	0.70	0.70	0.69	-0.06	SSC not included
Netherlands	1.36	1.14	1.12	0.99	1.11	1.02	0.97	0.94	0.95	-0.04	
New Zealand	0.76	0.71	0.75	0.76	0.88	0.81	0.89	0.92	0.85	0.09	Excises not included
Norway	n.a.	0.58	0.53	0.54	0.50	0.56	0.55	0.43	0.41	-0.13	Excises not included
Poland	1.94	1.75	1.42	1.59	1.72	1.91	1.69	1.55	1.60	0.01	SSC and excises not included
Portugal	1.34	1.22	1.18	1.27	1.57	1.55	1.37	0.94	0.99	-0.28	SSC not included
Slovak Republic	2.20	2.49	2.41	n.a.	n.a.	3.06	3.04	1.36	1.43	n.a.	SSC not included
Slovenia	0.95	0.97	0.84	0.81	0.90	0.96	0.93	0.91	0.89	0.08	Excises not included
Spain	0.74	0.68	0.64	0.82	0.97	0.88	0.86	0.66	0.67	-0.15	SSC not included, costs include customs (2010-11)
Sweden	n.a.	n.a.	n.a.	0.39	0.40	0.41	0.40	0.39	0.39	0.00	Costs exclude debt collection
Switzerland	n.a.	n.a.	n.a.	0.45	0.46	0.37	0.38	0.30	0.29	-0.16	Ratio is not comparable. For VAT administration only.
Turkey	0.87	0.84	0.83	0.85	0.93	0.78	0.76	0.78	0.64	-0.21	SSC not included
United Kingdom	1.10	1.09	1.11	0.90	0.91	0.98	0.83	0.74	0.73	-0.17	
United States /3	0.52	0.48	0.45	0.49	0.61	0.66	0.62	0.56	0.47	-0.02	
Non-OECD countries											
Argentina	0.89	1.01	1.08	0.93	1.14	1.32	1.25	0.97	0.95	0.02	
Brazil	– Data not collected for these years –					1.02	0.91	0.88	0.80	n.a.	Costs include Customs
Bulgaria	3.19	1.69	1.13	1.18	1.20	1.41	1.34	1.31	1.25	0.08	Excises not included
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Colombia	Data not collected for these years					0.93	0.68	0.49	0.56	n.a.	SSC not included
Costa Rica	––––– Data not collected for these years –––––							1.34	1.19	n.a.	
Croatia	––––– Data not collected for these years –––––							0.80	0.80	n.a.	
Cyprus	n.a.	n.a.	n.a.	0.78	0.94	1.25	1.23	1.14	1.16	0.38	SSC and excises not included; cost data pre-2010 incomplete
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	0.85	0.75	0.65	0.66	n.a.	Excises not included
India	n.a.	n.a.	n.a.	0.76	0.75	0.61	0.55	0.59	0.57	-0.19	Data for direct taxes only
Indonesia	n.a.	n.a.	n.a.	0.64	0.58	0.48	0.55	0.60	0.56	-0.08	Excises not included
Latvia	1.24	1.20	1.13	1.13	1.14	0.80	0.79	1.03	1.06	-0.07	
Lithuania	1.40	1.23	1.14	1.06	1.18	1.06	0.98	0.90	0.81	-0.24	SSC not included
Malaysia	1.20	1.14	1.29	1.04	1.41	0.78	0.70	0.82	1.00	-0.04	Data for direct taxes only
Malta	n.a.	n.a.	n.a.	n.a.	n.a.	1.12	1.00	0.95	0.95	n.a.	Costs include customs administration
Morocco	––––– Data not collected for these years –––––							n.a.	n.a.	n.a.	
Romania	n.a.	n.a.	n.a.	0.81	0.72	0.50	0.87	1.24	1.21	0.40	Costs include customs from 2012
Russia	n.a.	n.a.	n.a.	1.16	1.39	1.10	0.90	0.79	0.81	-0.35	
Saudi Arabia	n.a.	n.a.	n.a.	1.06	1.26	1.38	1.57	1.56	1.62	0.56	Very limited range of taxes in place
Singapore	1.02	0.93	0.83	0.77	0.81	0.89	0.87	0.78	0.79	0.02	SSC and excises not included
South Africa	1.19	1.21	1.02	0.97	1.03	1.15	1.08	1.09	1.05	0.08	Costs include Customs, net revenue collection includes SSC
Thailand	––––– Data not collected for these years –––––							0.73	0.71	n.a.	

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 196.

Source: Tax Administration 2015 survey responses.

Table 5.5. **Tax administration expenditure/gross domestic product (GDP) /1**

Country	Administrative costs for tax administration/gross domestic product (at market prices) % /2									Variation	Significant factors affecting comparability between countries' ratios
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013-08	
OECD countries											
Australia	0.240	0.231	0.213	0.217	0.211	0.206	0.193	0.198	0.191	-0.026	
Austria	0.144	0.143	0.141	0.187	0.189	0.156	0.150	0.156	0.157	-0.030	
Belgium	0.374	0.402	0.332	0.335	0.344	0.322	0.336	0.314	0.304	-0.032	
Canada	0.224	0.223	0.210	0.205	0.235	0.225	0.222	0.222	0.209	0.004	
Chile	0.109	0.100	0.105	0.116	0.125	0.120	0.117	0.117	0.110	-0.006	Costs exclude debt collection
Czech Republic	0.203	0.202	0.188	0.179	0.195	0.179	0.189	0.196	0.197	0.019	
Denmark	0.358	0.296	0.286	0.288	0.299	n.a.	n.a.	0.248	0.226	-0.062	
Estonia	0.275	0.236	0.235	0.120	0.119	0.113	0.105	0.126	0.139	0.018	Excludes IT costs
Finland	0.201	0.199	0.192	0.200	0.215	0.204	0.198	0.198	0.197	-0.003	
France	0.256	0.244	0.232	0.224	0.230	0.224	0.219	0.198	0.191	-0.033	
Germany	0.292	0.287	0.272	0.270	0.284	0.283	0.273	0.269	0.275	0.005	
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Hungary	0.299	0.335	0.397	0.392	0.398	0.421	0.379	0.410	0.423	0.030	
Iceland	n.a.	n.a.	n.a.	0.074	0.077	0.163	0.157	0.152	0.148	0.075	Costs exclude debt collection
Ireland	0.237	0.237	0.236	0.269	0.284	0.254	0.241	0.232	0.240	-0.029	Costs include customs
Israel	n.a.	n.a.	n.a.	0.172	0.168	0.143	0.137	0.170	0.180	0.007	
Italy /3	0.307	0.296	0.284	0.185	0.198	0.147	0.139	0.152	0.188	0.002	Some major costs not included
Japan	0.139	0.138	0.137	0.141	0.149	0.143	0.142	0.152	0.148	0.007	
Korea	0.106	0.106	0.104	0.112	0.113	0.106	0.103	0.098	0.099	-0.014	
Luxembourg	0.238	0.224	0.216	0.227	0.256	0.229	0.228	0.231	0.233	0.006	
Mexico	0.083	0.077	0.073	0.073	0.076	0.069	0.068	0.068	0.070	-0.002	
Netherlands	0.395	0.385	0.367	0.326	0.339	0.328	0.309	0.307	0.322	-0.004	
New Zealand	0.198	0.198	0.198	0.210	0.226	0.187	0.201	0.214	0.202	-0.008	
Norway	0.187	0.177	0.169	0.157	0.177	0.170	0.162	0.135	0.132	-0.025	
Poland	0.306	0.289	0.277	0.236	0.228	0.273	0.247	0.217	0.213	-0.023	
Portugal	0.250	0.241	0.238	0.240	0.260	0.258	0.247	0.197	0.226	-0.014	
Slovak Republic	0.213	0.193	0.172	n.a.	n.a.	0.176	0.181	0.162	0.182	n.a.	
Slovenia	0.313	0.329	0.266	0.263	0.285	0.296	0.288	0.283	0.269	0.005	
Spain	0.131	0.127	0.126	0.130	0.134	0.135	0.133	0.108	0.110	-0.020	Costs include customs(2010-11)
Sweden	0.183	0.184	0.188	0.182	0.184	0.175	0.174	0.167	0.164	-0.018	Costs exclude debt collection
Switzerland	0.030	0.029	0.028	0.028	0.029	0.023	0.023	0.024	0.024	-0.004	VAT administration only
Turkey	0.161	0.152	0.151	0.149	0.169	0.149	0.149	0.154	0.134	-0.016	
United Kingdom	0.329	0.334	0.334	0.279	0.287	0.265	0.234	0.223	0.213	-0.066	
United States	0.079	0.077	0.074	0.077	0.081	0.083	0.080	0.074	0.069	-0.008	
Non-OECD countries											
Argentina	0.162	0.180	0.204	0.205	0.248	0.260	0.257	0.262	0.269	0.064	
Brazil	n.a.	n.a.	n.a.	n.a.	n.a.	0.206	0.196	0.188	0.175	n.a.	Costs include customs
Bulgaria	0.338	0.244	0.215	0.223	0.237	0.238	0.227	0.223	0.218	-0.005	
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.130	0.121	n.a.	
Colombia	n.a.	n.a.	n.a.	n.a.	n.a.	0.072	0.060	0.069	0.080	n.a.	
Costa Rica	––––––––– Data not collected for these years –––––––––							0.114	0.105	n.a.	
Croatia	––––––––– Data not collected for these years –––––––––							0.263	0.258	n.a.	
Cyprus	n.a.	n.a.	n.a.	0.181	0.190	0.247	0.246	0.223	0.228	0.048	
Hong Kong, China	n.a.	n.a.	n.a.	n.a.	n.a.	0.059	0.056	0.056	0.057	n.a.	
India	n.a.	n.a.	n.a.	0.042	0.043	0.034	0.029	0.029	0.028	-0.014	Direct taxes only
Indonesia	n.a.	n.a.	n.a.	0.064	0.053	0.041	0.050	0.061	0.057	-0.007	
Latvia	0.345	0.342	0.328	0.338	0.339	0.227	0.224	0.303	0.312	-0.026	
Lithuania	0.272	0.248	0.228	0.219	0.211	0.171	0.155	0.144	0.135	-0.084	
Malaysia	0.118	0.117	0.135	0.111	0.153	0.078	0.081	0.102	0.122	0.011	Costs exclude indirect taxes
Malta	0.472	0.447	0.376	n.a.	n.a.	0.379	0.339	0.314	0.322	n.a.	Costs include customs adminisration
Morocco	––––––––– Data not collected for these years –––––––––							n.a.	n.a.	n.a.	
Romania	0.188	0.212	0.251	0.224	0.193	0.123	0.223	0.355	0.333	0.110	Costs include customs
Russia	n.a.	n.a.	n.a.	0.224	0.226	0.182	0.156	0.139	0.138	-0.086	
Saudi Arabia	0.009	0.010	0.010	0.008	0.011	0.011	0.013	0.013	0.015	0.006	Limited range of taxes in place
Singapore	0.086	0.078	0.070	0.082	0.086	0.083	0.088	0.083	0.088	0.006	
South Africa	0.274	0.291	0.256	0.249	0.270	0.263	0.253	0.262	0.257	0.008	Costs include customs
Thailand	––––––––– Data not collected for these years –––––––––							0.087	0.087	n.a.	

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 196.
Sources: Survey responses, OECD Statistical Database, Eurostat and World Bank Statistics.

- A consistent downwards trend in relative administrative costs can be observed for a small number of countries (e.g. Australia, Denmark, France, India, Lithuania, Mexico, Netherlands, Norway, Poland, Russia, Spain, Sweden and United Kingdom).
- Within-country comparisons of this ratio over time may be suitable for drawing assessments of relative efficiency over time, although the indicator is susceptible to periodic revisions of GDP made by statistical bodies.
- As for the cost of collection ratio already discussed, cross-country comparisons of this ratio in the context of assessments of relative efficiency need to be undertaken with considerable care to avoid ill-founded conclusions.

International comparisons of administrative expenditure and staffing

Cost of collection ratios

Given the many similarities in the taxes administered by federal revenue bodies from country to country, there has been a natural tendency by observers to make cross-country comparisons of "cost of collection" ratios and draw conclusions on revenue body efficiency and effectiveness. However, experience shows that such comparisons are difficult to carry out in a consistent fashion given a range of variables to be taken into account – see Box 5.2. The most significant factors to be taken account of that are not related to efficiency and effectiveness are: *(1)* variations in the size of the legislated tax burden; and *(2)* the range and nature of taxes administered, in particular whether the revenue body is responsible for the collection of social security contributions.

Many of the factors referred to can be seen from the data in Table 5.3:

- For many surveyed countries (particularly a number in Europe) social security contributions, which in many countries constitute a significant revenue stream, are collected by a separate agency and therefore their costs and the revenue collected are excluded from the calculation used to compute the ratio – see information below which illustrates this particular aspect:

	Countries (by level of tax/ GDP in 2012)*		
Cost of collection ratio in 2013	20-30%	30-40%	Over 40%
Less than 0.60		Malta	Denmark, Sweden
0.61-0.80		Croatia, Spain*, United Kingdom	Austria*, Finland
0.81-1.00	Lithuania*	Estonia, Ireland, Luxembourg*, Netherlands, Portugal*, Slovenia	
1.20	Latvia	Cyprus*, France*, Hungary	Belgium*, Italy*
1.20-1.40	Romania	Czech Republic*, Germany*, Bulgaria	
Over 1.41		Poland*, Slovak Republic*	

* For these countries, SSC are collected by separate agencies, not the revenue body.

- The inability of some revenue bodies (i.e. Ireland, Mexico (prior to 2005), South Africa and Spain) to exclude the costs of non-tax functions (e.g. customs) from the cost base used to calculate the ratio.
- There are substantial differences in the statutory tax burden (and hence the potential tax revenue base) across surveyed countries (ranging from below 20% to almost 50% of GDP) that influences what is collected in practice, and hence the computed ratio.

- Unusual institutional arrangements exist in some countries (e.g. Italy for tax fraud functions, Chile and Sweden for tax debt collection functions) that see some mainstream tax administration-related functions performed by a body separate from the main revenue body; as a result, the cost data used to compute the ratio for these bodies understates the real costs of tax administration, and hence the computed ratio.

For these sorts of reasons, international comparisons of both ratios need to be made with care and take account of any of the abnormal factors highlighted, as well as other differences in approaches to tax administration highlighted in this series.

Box 5.2. **International comparisons of cost of collection ratios**

Analytical work undertaken in conducting comparisons of cost of collection ratios has revealed that there are many factors to explain the marked variations in the ratio observed from country to country. The more significant factors are described below:

- **Differences in tax rates and structure*:*** Rates of tax and the actual structure of taxes all will have a bearing on aggregate revenue and, to a lesser extent, cost considerations. For example, comparisons of the ratio involving high-taxing countries (e.g. those where tax burdens regularly exceed 40% of GDP) and low-taxing countries (e.g. those where tax burdens are less than 20%) are hardly realistic given their widely varying tax burdens.
- **Differences in the range and nature of taxes administered by federal revenue authorities*:*** There are a number of differences that can arise here. In some countries, more than one major tax authority may operate at the national level (e.g. as in India, Cyprus and Malta), or taxes at the federal level are predominantly of a direct tax nature, while indirect taxes are administered largely by separate regional/state authorities (e.g. the United States). In other countries, one national authority will collect taxes for all levels of government, i.e. federal, regional and local governments (a number of EU countries).
- **Collection of social insurance contributions, etc.:** As described earlier in this series, there are significant variations from country to country in the collection of social security contributions. A few countries (e.g. Australia, New Zealand) do not have separate regimes of mandatory social contributions, while others make separate provision for them and have them collected by the main tax revenue collection agency. Some countries have them collected by a separate government agency. Given that social contributions are a major source of tax revenue for many countries, the inclusion/exclusion of social contributions in the revenue base for "cost of collection" calculation purposes can have a significant bearing on the computed ratio.
- **Differences in the range of functions undertaken*:*** The range of functions undertaken by revenue bodies can vary from country to country. For example, in some countries the revenue body is also responsible for carrying out activities not directly related to tax administration (e.g. administration of customs laws, the administration of certain welfare benefits), while in others some tax-related functions are not carried out by the revenue body (e.g. enforced debt collection). Ideally, these sorts of differences should be allowed for in any cross-country comparisons undertaken of relative aggregate costs and related ratios.

Box 5.2. **International comparisons of cost of collection ratios** *(continued)*

- **Lack of a common measurement methodology***:* There is no universally accepted methodology for the measurement of administrative costs. Revenue bodies that publish a cost of collection ratio generally do not reveal precise details of the measurement approach adopted for their calculations. In relation to administrative costs, the treatment of employee pension costs, accommodation costs, interest paid on overpaid taxes, the use of cash and non-cash methods (e.g. by means of a float) to recompense financial institutions for collecting tax payments, and capital equipment purchases are some of the potentially significant areas where the measurement approaches adopted may vary**.** The ratio is also influenced by the selection of the revenue base i.e. "gross" or "net" (i.e. after refunds) revenue collections figure for its computation. For example, the US Internal Revenue Service (IRS), which has one of the lowest reported costs of collection ratios for any national revenue body, and the Irish Office of the Revenue Commissioners, both use "gross" revenue as the basis of their reported computation, while most other authorities use a "net" figure. As a result, for both countries the reported ratio is around 10-12 % lower than if it were computed on a "net" revenue basis. For this series, calculations are made on the basis of "net revenue" collections.

Source: OECD CTPA Secretariat.

Relative staffing levels of revenue bodies

A summary of the staff usage (expressed as FTEs) by national revenue bodies is set out in Table 5.6. To the extent possible and to allow cross-country comparisons, efforts have been made to exclude staffing related non-tax related roles. In order to reflect a degree of relativity, aggregate staff levels have been compared with overall official country population and labour force data to compute two ratios: *(1)* the number of citizens per one full-time staff member: and *(2)* the number of labour force participants per full-time staff member. Figure 5.2 displays the computed ratio for all OECD countries while Figure 5.3 displays a comparison with the ratio "tax administrative expenditure/GDP" discussed earlier in the chapter.

Comparisons of this nature are naturally subject to some of the qualifications referred to concerning "cost of collection" ratios – in addition to efficiency considerations, exogenous factors such as the range of taxes administered (e.g. social contributions, motor vehicle and property taxes) and the performance of non-tax related roles (where these cannot be isolated) all impact on the magnitude of the reported ratio. For some countries, demographic features (e.g. country age profile and rate of unemployment) are also likely to be relevant. Revenue bodies in a number of countries (e.g. United Kingdom) also have major restructuring programmes underway, some of which project significant staffing reductions over the coming years. To assist readers, known abnormal factors influencing the reported ratios are identified.

Concerning OECD countries, it will be evident that the greatest level of consistency occurs in relation to the ratio based on country labour forces (i.e. the number of labour force participants/one revenue body staff member [FTE]):

- Seven revenue bodies (i.e. Belgium, Czech Republic, Germany, Hungary, Luxembourg, Poland, Slovak Republic) have a ratio less than 400; drawing on data presented elsewhere in this series, tax administration in these countries tends to be is characterised by one or more of the following:

- Relatively large office networks (see Table 2.4);
- Outdated institutional/organisational arrangements (Table 1.1);
- Relatively low investments in IT (see Table 5.3), although in the case of the Czech Republic this has been bolstered in recent years, while for Luxembourg the full costs are unable to be quantified as they are shared with other parts of MOF via a separate IT department); and/or
- Low overall take up (i.e. PIT, CIT, and VAT in aggregate) of e-filing (Tables 7.3 to 7.5), with the exception of Belgium.

• Ten revenue bodies have a ratio between 401-600 labour force members/FTE.

• Eight revenue bodies have a ratio in the range 601-800.

• Nine revenue bodies have a ratio over 800 (with six “outliers” (i.e. Chile, Japan, Korea, Mexico, Switzerland and the United States) where the ratio exceeds 1 000):

- For ***Chile*** (1 998:1), the staffing data provided do not include the full range of normal tax administration functions (e.g. debt collection) and as a result its ratio is not directly comparable with others.
- In the case of ***Japan,*** where the ratio is 1 170:1, staffing levels of the revenue body (i.e. the NTA) have remained in the region of 50 000 to 56 000 for the last 50 years, reflecting decisions both to keep staff resources roughly constant and, importantly, to minimise workloads. Compared to other countries, administrative workloads have been kept relatively low with the assistance of, among other things; special tax system design features (e.g. high thresholds for various reporting and payment obligations, less frequent tax payment obligations and extensive use of tax withholding). (Further information on some of these features can be found in Chapter 9.) Also relevant is the collection of social security contributions by a separate agency.
- ***Korea*** (a ratio of 1 373:1) also makes extensive use of tax system design features that minimise workloads, in comparison with arrangements seen in other countries. For example, there is substantial use of final withholding systems for the bulk of employee taxpayers (employers withhold monthly, calculate employees’ tax liability and clear the balance off at the end of year), withholding at source arrangements for dividend and interest income and certain payments for independent services, and biannual reporting and payment arrangements for VAT liabilities. Social contributions are also collected by a separate agency.
- With annual tax collections equivalent to around 20% of GDP, ***Mexico’s*** tax system (ratio of 2 038:1) is of a considerably smaller scale than most other OECD countries. Its tax system arrangements are characterised by substantial use of final withholding system arrangements for employee taxpayers (with quite limited registration of personal taxpayers [equivalent to around to 20 % of the official labour force]), and a relatively small population of registered business taxpayers.
- The very high ratio for ***Switzerland*** (i.e. 5 049:1) results from the fact that the Federal Tax Administration is responsible only for VAT administration, with both personal and corporate income taxes administered at the sub-national level by separate agencies in each canton, the costs of which are not accounted for in this series. For this reason, the ratio largely reflects the resources required for VAT administration, thus making it incomparable with all other national revenue bodies.

Table 5.6. **Revenue body staff usage for fiscal year 2013 and related ratios /1**

Country	Staff usage aggregates (FTEs) /2			Staff usage ratios		
	All revenue body functions	Tax and related support functions	% FTEs for tax and support functions	Citizens/ FTEs on tax and support functions	Labour force/ FTEs on tax and support functions	Factors affecting comparability of countries' computed ratios (i.e. ratios in columns 5 and 6)
OECD countries						
Australia	20 248	17 477	86.3	1 323	699	
Austria	7 521	7 484	99.5	1 132	587	
Belgium	22 232	19 485	87.6	573	254	
Canada	39 521	38 172	96.6	921	501	
Chile	4 195	4 195	100.0	4 186	1 998	FTEs exclude debt collection
Czech Republic	15 031	14 272	95.0	736	372	
Denmark	6 802	5 861	86.2	955	493	
Estonia	1 549	983	63.5	1 343	692	
Finland	5 072	5 072	100.0	1 071	528	
France	114 417	66 964	58.5	979	427	
Germany	110 494	110 494	100.0	743	387	
Greece	11 500	8 000	69.6	1 383	621	
Hungary	22 482	17 870	79.5	555	246	
Iceland	240	240	100.0	1 333	750	FTEs exclude debt collection
Ireland	5 745	5 745	100.0	799	376	FTEs include customs
Israel	6 035	5 104	84.6	1 579	721	
Italy /2	39 814	31 706	79.6	1 914	805	
Japan	56 194	56 194	100.0	2 265	1 170	
Korea	18 841	18 841	100.0	2 665	1 373	
Luxembourg /2	984	984	100.0	549	254	
Mexico	36 410	25 457	69.9	4 651	2 038	
Netherlands	28 313	20 873	73.7	804	429	
New Zealand	5 282	3 433	65.0	1 302	705	
Norway	6 962	6 733	96.7	754	401	
Poland	48 821	47 593	97.5	809	365	
Portugal	11 341	10 066	88.8	1 065	535	
Slovak Republic	9 296	6 813	73.3	796	399	
Slovenia	2 365	2 365	100.0	871	427	
Spain	26 231	22 402	85.4	2 081	1 035	
Sweden	9 705	7 877	81.2	1 214	650	FTEs exclude debt collection
Switzerland	965	925	95.9	8 692	5 049	Data for VAT administration only
Turkey	51 369	51 046	99.4	1 490	548	
United Kingdom	63 843	53 205	83.3	1 176	605	
United States	86 977	86 977	100.0	3 635	1 802	No major indirect tax
Non-OECD countries						
Argentina	22 157	16 901	76.3	2 452	1 130	
Brazil	24 625	24 625	100.0	8 136	4 163	FTEs include customs
Bulgaria	7 680	7 672	99.9	949	439	
China	756 000	n.a.	n.a.	n.a.	n.a.	
Colombia	9 095	5 244	57.7	9 215	4 491	
Costa Rica	961	961	100.0	5 070	2 300	
Croatia	4 212	4 187	99.4	1 017	401	
Cyprus	782	774	99.0	1 124	556	
Hong Kong, China	2 826	2 588	91.6	2 790	1 491	
India	41 357	41 357	100.0	30 276	11 636	Data for direct taxes only
Indonesia	32 273	32 273	100.0	7 742	3 724	
Latvia	4 312	3 091	71.7	654	327	
Lithuania	3 476	3 476	100.0	854	423	
Malaysia	11 049	9 005	81.5	3 299	1 488	Data for direct taxes only
Malta	750	736	98.1	571	258	FTEs include customs
Morocco	4 735	4 735	100.0	6 971	2 541	
Romania	24 481	22 043	90.0	908	453	
Russia	128 977	128 977	100.0	1 113	586	
Saudi Arabia	1 589	1 589	100.0	18 143	7 149	Very limited range of taxes
Singapore /2	1 898	1 898	100.0	2 845	1 128	
South Africa	14 701	11 864	80.7	4 466	1 665	
Thailand	23 129	23 129	100.0	2 897	1 706	

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 196.
Sources: Survey responses, OECD Statistical Database, Eurostat, World Bank, International Labour Organization.

- In the case of the ***United States*** (where the ratio is 1 802:1), a meaningful comparison of relative staffing levels with other surveyed countries is complicated by the absence of a national VAT (or a similar tax), as is the case in all other OECD countries. A further consideration is that, unlike most other surveyed countries, there are separate income taxes and retail sales taxes levied at the state level in the United States that are administered separately by state revenue agencies, not by the IRS. (A more valid comparison would require account being taken of the staff required by these agencies, which is beyond the scope of this series.) For these reasons, the computed ratio for the IRS – and this observation applies also to its computed "cost of collection" ratio – is not really comparable with that of revenue bodies in any other OECD country.

For revenue bodies in non-OECD surveyed countries, the computed ratio reflects an even greater divergent pattern, ranging from 258:1 to over 11 000:1. The full range of factors that might explain this disparity has not been identified, although in the case of the EU member countries included the following aspects are likely to be characterised by one or more of the following factors: *(1)* relatively large office networks (see Table 2.4); *(2)* outdated institutional/organisational arrangements (Table 1.1); *(3)* relatively low investments in IT (see Table 5.3); and/or *(4)* low overall take up of e-filing (Tables 7.3 to 7.5).

Figure 5.2. **Labour force participants/FTE on tax and support functions (OECD countries)**

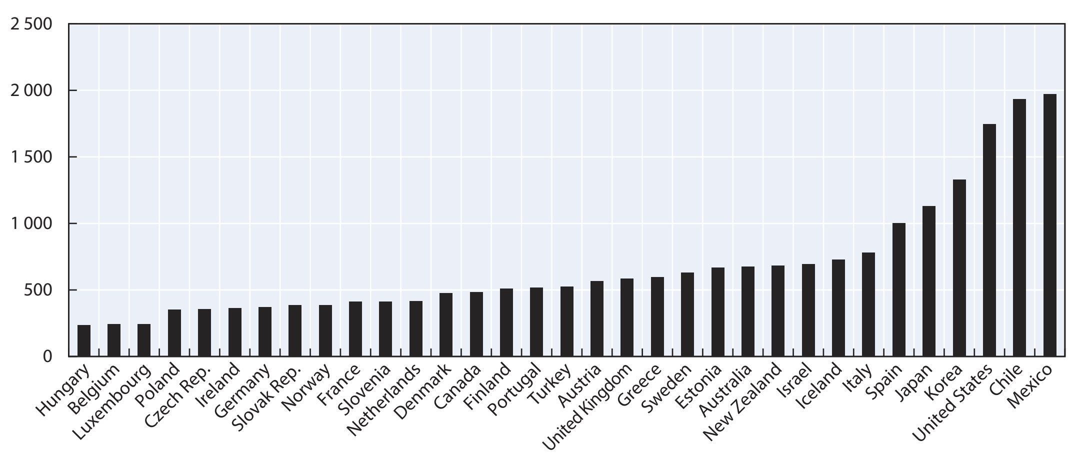
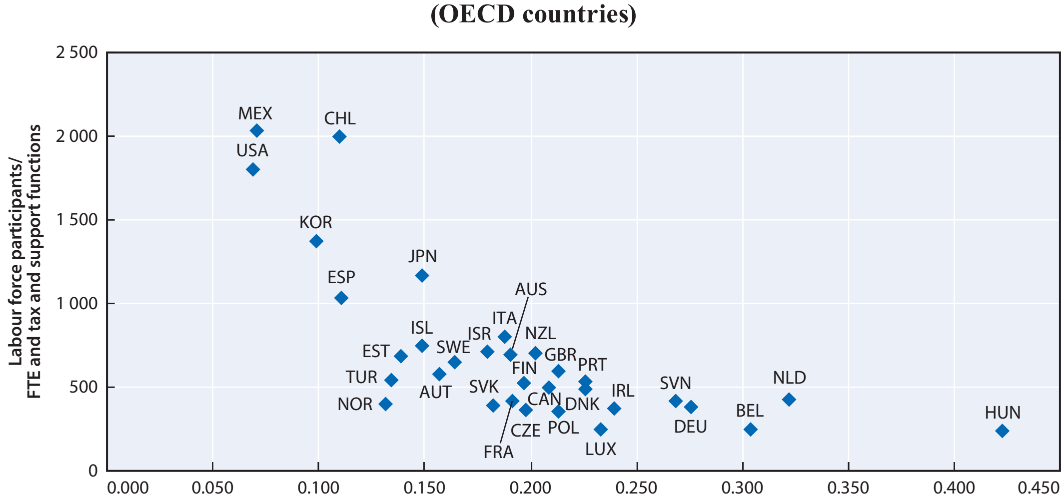


Figure 5.3. **Labour force participants/FTE on tax and support vis-à-vis tax expenditure/GDP (OECD countries)**



Allocation of staff resources by functional groupings

Given the similarity in the taxes administered across surveyed countries, an obvious area of comparison concerns how revenue bodies allocate their total staff resources across the range of tax administration and support functions that must be undertaken to achieve organisational objectives. For this purpose, revenue bodies were requested to indicate the allocation of aggregate staff resources (in FTE terms) for tax administration purposes across six "functional groupings" that are described in Box 5.3. Table 5.6 provides an indication of the data gathered for just over 90% of surveyed revenue bodies on resource allocation (i.e. % of FTE by functional groups) in 2013. Given definitional issues, and the possibility of some inconsistencies in data compilation, the information presented needs to be interpreted with care.

Box 5.3. **Categorisation of revenue body operations**

For survey purposes, the following definitions were used:

A. ***Taxpayer account management***: Staff used (in FTEs) for all functions associated with maintaining taxpayers' records (e.g. registration, data processing, taxpayer accounting, filing, withholding tax administration, storage etc.)

B. ***Audit, investigation and other verification-related/compliance improvement functions:*** Staff used (in FTEs) for all functions associated with verifying (either through field visits, office interviews or in writing) the information contained in taxpayers' returns for all taxes administered, and specific "upfront" compliance improvement programmes (e.g. inspections and other record reviews)

C. ***Tax debt collection and related functions:*** Staff used (in FTEs) for all functions associated recovering unpaid taxes and outstanding tax returns etc.

D. ***Other tax operations:*** Staff used (in FTEs) for all other tax functions not covered by categories A, B, and C (e.g. disputes and complaints, taxpayer services (e.g. call centres).

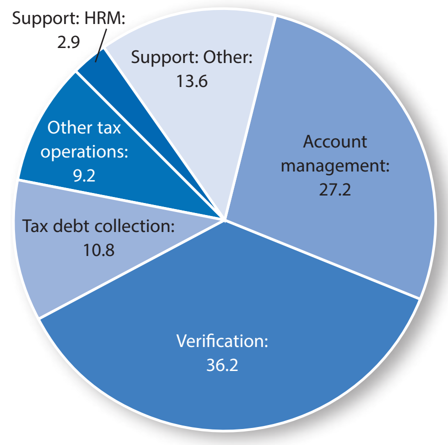
E. ***Support: human resources:*** Staff used (in FTEs) for support functions associated with personnel, recruitment, and staff training and development-related services and work.

F. ***Support: other functions:*** Staff used (in FTEs) for all other support functions such as executive, corporate planning, public relations and communications, information technology services, accommodation, supply, security, internal assurance, public relations and finance functions.

Drawing on the information in Table 5.6, the key observations are as follows:

- Within most functional groupings there are some extreme "outlier" ratios reported that are perhaps best ignored for the purpose of detailed analysis as they are likely to result from limitations in available data, unusual organisational setups, and/or misinterpretation of the series requirements. Figure 5.4 displays the "average" allocations observed across functional groupings for OECD countries.
- ***Client account management functions:*** Significantly for this grouping, over one-third of revenue bodies (20) reported staff usage exceeding 30% of aggregate staff, including 11 where the ratio exceeded 40%. Of this latter group, seven reported IT expenditure less than 10% of total expenditure (or were unable to quantify the amount of IT expenditure incurred).

Figure 5.4. **Average FTE usage for key functional groupings (OECD countries)**



- ***Audit, investigation and other verification activities:*** Survey responses for this category varied significantly ranging from around 9% to over 65%. Overall, around 50% of surveyed revenue bodies reported usage in excess of 30%, although the concentration was much larger among OECD countries (around two-thirds) compared to non-OECD revenue bodies (around a third).

  Six revenue bodies reported allocations to audit etc., exceeding 50% (i.e. Austria, Estonia, Iceland, Japan, Slovenia, and Singapore).

- ***Enforced debt collection and related functions:*** Usage reported for this functional grouping ranged from a low 0% (in Chile and Sweden where this work is primarily the responsibility of a separate body) to almost 34% (Romania); significantly, around half of revenue bodies reported total usage exceeding 10% of aggregate staff, and in 14 countries the proportion exceeded 15% indicating the relative importance of this function in these offices.

  Based on data in Tables 5.6 and 6.13, debt collection resources appear relatively low having regard to the reported incidence of debt in some revenue bodies:

Measure	Czech Republic	Slovak Republic	Bulgaria	Croatia	Latvia	Malta
% staff on debt collection 2013	5.8	4.2	9.8	8.6	8.1	4.9
Tax debt /net revenue (2013)	18.1	33.0	15.3	35.3 (incl. disputed debt)	29.5 (incl. disputed debt)	22.1

- ***Corporate overhead functions (including IT support and human resources)**:* Usage reported for this grouping also varied enormously, suggesting some inconsistency in how these functions are viewed and quantified. Against an average across OECD countries of around 16.5%, seven revenue bodies (i.e. Chile, Colombia, Indonesia, Israel, Poland, Spain, and Sweden) reported an unusually high proportion (i.e. over 25%) of total staffing, the reasons for which have not been fully identified, although in the case of Spain it has been established that all IT applications and related software and tools (including the administration's Internet-based electronic office) are developed in-house, while support is also provided for customs administration.

Table 5.7. **Staff usage (2013) by major tax functional groupings (% of total usage)**

Country	Total FTEs for all tax functions and support	Total staff usage on major tax functions as a share of total usage/1					
		Account management	Verification (incl. audit)	Tax debt collection	Other tax operations	Support: Human resources	Support: Other functions
OECD countries							
Australia	17 477	17.5	35.0	9.8	16.5	6.0	15.2
Austria	7 484	11.4	63.7	10.4	8.7	0.0	5.9
Belgium	19 485	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Canada	38 172	25.3	28.9	20.0	7.7	3.5	14.6
Chile /2	4 195	19.9	40.4	0.0	1.4	3.5	34.8
Czech Republic	14 272	60.2	19.0	5.8	15.1	0.0	0.0
Denmark	5 861	26.7	40.7	8.2	2.3	2.3	19.8
Estonia	983	1.0	67.0	10.1	10.1	0.6	11.2
Finland	5 072	38.3	38.9	9.5	2.5	2.0	8.9
France	66 964	43.3	15.3	10.1	12.3	18.9	0.0
Germany	110 494	39.5	39.6	6.8	9.5	3.6	0.9
Greece	8 000	56.3	25.0	10.0	3.8	2.5	2.5
Hungary	17 870	24.0	36.3	15.3	1.1	1.6	21.8
Iceland /2	240	6.7	65.4	0.0	10.0	0.8	17.1
Ireland /2	5 745	26.9	30.7	14.3	8.6	0.9	18.6
Israel	5 104	12.9	40.3	16.6	3.6	4.2	22.4
Italy /2	31 706	35.8	38.4	2.8	8.9	4.6	6.0
Japan /2	56 194	0.0	63.3	21.2	2.3	0.7	12.4
Korea /2	18 841	58.0	24.0	1.0	9.3	0.6	7.1
Luxembourg /2	984	22.2	42.1	17.1	12.3	2.3	4.0
Mexico	25 457	15.9	35.2	23.4	7.9	5.1	12.5
Netherlands	20 873	26.4	41.8	7.4	2.0	6.6	15.7
New Zealand	3 433	37.4	22.4	9.4	6.4	2.0	22.5
Norway	6 733	6.2	41.6	12.4	10.9	2.0	27.0
Poland	47 593	18.6	24.8	12.1	17.8	0.8	25.8
Portugal	10 066	53.0	16.8	18.8	2.5	2.1	6.7
Slovak Republic	6 813	40.3	22.9	4.2	8.9	1.8	22.0
Slovenia	2 365	6.2	57.6	18.5	3.5	1.4	12.9
Spain	22 402	32.1 /2	22.6	19.7	0.0	7.8 /3	17.8 /3
Sweden /2	7 877	0.0	32.5	0.0	36.1	0.0	31.5
Switzerland	925	9.2	25.4	7.9	56.4	1.1	0.0
Turkey	51 046	60.1	19.9	8.1	0.3	3.4	8.4
United Kingdom	53 205	33.4	42.7	12.0	3.6	1.8	6.5
United States	86 977	33.2	34.0	14.4	1.6	1.5	15.2
OECD ave. (unw.)		27.2	36.2	10.8	9.2	2.9	13.6
Non-OECD countries							
Argentina	16 901	19.8	36.1	7.2	12.1	2.1	22.7
Brazil /2	24 625	20.2	19.7	20.8	25.3	2.2	11.8
Bulgaria	7 672	25.3	42.0	9.8	9.4	1.3	12.1
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Colombia	5 244	8.9	28.0	17.1	20.0	2.8	23.1
Costa Rica	961	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Croatia	4 187	56.0	19.8	8.6	8.5	4.7	2.4
Cyprus	774	23.3	36.7	11.8	12.7	1.0	14.6
Hong Kong, China	2 588	58.8	9.3	17.2	2.0	0.1	12.5
India	41 357	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indonesia	32 273	20.8	14.0	2.0	2.1	9.2	51.9
Latvia	3 091	46.5	25.9	8.1	2.0	1.3	16.1
Lithuania	3 476	38.8	28.7	6.7	14.3	0.9	10.5
Malaysia	9 005	9.1	37.9	23.6	15.1	2.0	12.2
Malta	736	14.3	12.9	4.9	60.9	1.5	6.1
Morocco	4 735	59.3	10.7	12.7	0.0	2.3	15.0
Romania	22 043	17.8	22.5	34.1	11.3	0.9	13.5
Russia	128 977	7.4	47.1	8.7	16.9	2.0	17.9
Saudi Arabia	1 589	16.6	35.9	10.2	12.5	18.4	6.4
Singapore /2	1 898	8.7	52.2	11.1	9.7	1.6	16.8
South Africa	11 864	49.3	16.6	9.3	8.6	2.5	13.7
Thailand	23 129	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

For notes indicated by "/ (number)", see Notes to Tables section at the end of the chapter, p. 197.
Source: Tax Administration 2015 survey responses.

There are many management-related factors (beyond misclassification and data errors) that may explain some of the observed variations in functional staffing allocations: *(1)* the use of administrative assessment versus self-assessment approaches; *(2)* the degree of automation of routine tax administration; *(3)* the use centralised versus decentralised functions; *(4)* the degree of reliance placed on outsourcing (e.g. for IT support); *(5)* poor management practices that see excessive resources devoted to overhead functions; *(6)* tax system design features that impact routine workloads (e.g. payment and filing frequency, VAT registration thresholds); and *(7)* the nature and size of the revenue body's office network. These are all considerations that are covered by this series. The widely-ranging ratios reported for the various functional groupings point to the need for careful analysis in conducting comparisons in this area.

Third party service delivery of revenue body functions/operations

"Third party service delivery", described as "outsourcing" in prior editions of this series, refers to the use of other parties to deliver services required for the conduct of tax administration operations. It includes the engagement of (or "outsourcing" to) private sector bodies, such as financial institutions to collect tax payments or private firms to provide information technology support, as well as the delivery of revenue body function by other parts of government using a "shared services" delivery approach, or by way of a separate arrangement between a revenue body and some other government body. Generally speaking, the choice to use a third party service delivery approach is driven by an objective to increase cost efficiency/cut costs through eliminating duplication of efforts

Table 5.8. **Third party service delivery of tax administration functions**

	Revenue bodies that use these bodies for some/all of the functions specified	
Function/task	Private sector enterprises	Another government body
Receipt/collection of tax payments (e.g. via a bank or post office)	Argentina, Austria, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Finland, Greece, India, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Mexico, New Zealand, Norway, Portugal, Russia, Singapore, Slovenia, Spain, Sweden, Thailand, Turkey, United Kingdom, United States	Argentina, Australia, Croatia, Hong Kong, Iceland, Italy, Latvia, Malta, Morocco, Poland, Slovakia, Turkey
Answering taxpayers inquiries (e.g. via call centre-type operations, shop fronts)	Australia, Brazil, Chile, Colombia, India, Ireland, Malta, Mexico, New Zealand, Slovakia, Spain, United States	China, Costa Rica, Italy, New Zealand, Norway, Poland, Slovakia, Turkey
Data processing (e.g. for capturing of information from tax returns etc.)	Costa Rica, Cyprus, Finland, Israel, Mexico, Norway, Russia, Thailand	Brazil, Croatia, Germany, Italy, Malta, Norway, Poland, Turkey
Collecting tax debts (e.g. using private debt collection bodies)	Australia, Brazil, Ireland, Israel, Netherlands, United Kingdom	Brazil, Costa Rica, Croatia, Iceland, Italy, Korea, Malta, Norway, Poland, Turkey
Information technology services	Australia, Brazil, Bulgaria, Chile, China, Colombia, Croatia, Cyprus, Czech Republic, Denmark, Finland, Iceland, India, Israel, Japan, Latvia, Malaysia, Mexico, New Zealand, Norway, Russia, Singapore, Spain /1, Thailand, United Kingdom	Australia, Austria, Bulgaria, Canada, Costa Rica, Croatia, Cyprus, Estonia, Finland, Germany, Greece, Italy, Luxembourg, Malta, Norway, Poland, Switzerland, Turkey
Personnel and/or staff recruitment functions	Australia, Colombia, Israel, New Zealand, United Kingdom	Belgium, Brazil, Costa Rica, Cyprus, Finland, Greece, Ireland, Italy, Japan, Luxembourg Malta, Norway, Poland, Turkey
Other functions	Australia /1, Canada /1, Cyprus, Latvia, Malta /1, Singapore /1	Australia /1, Canada, Cyprus, Israel /1, Latvia, Saudi Arabia /1

Source: Tax Administration 2015 survey responses.

and/or by achieving economies of scale. For this series, revenue bodies were asked to indicate whether specific tax administration functions/tasks were delivered by third parties. Table 5.8 summarises revenue bodies' responses while some important observations are set out hereunder:

- The more commonly reported tasks that are outsourced to the private sector are the collection of tax payments (e.g. by banks and other financial institutions) and the provision of information technology support.
- Some of the more unusual arrangements reported with third parties were:
  - ***Collecting tax payments:*** In Japan, tax payment services are provided in convenience stores. The US IRS reported use of a "lock box" facility requiring some balance due taxpayers to send their voucher and payment to a designated location (a lockbox bank) provided by a network of financial institutions.
  - ***Taxpayer inquiries:*** Australia reported that a share of its inbound telephony inquiries are answered by outsourced call centres; in New Zealand, limited use is made of outside or other Government call centres in peak periods, while Spain also uses external service providers for basic inquiries. In the United States, the National Telecommuting Institute (NTI) receives and responds to orders for tax material from taxpayers.
  - ***Enforced tax debt collection:*** Australia reported that generally the enforced collection of debts up to AUD 75 000 are able to be outsourced to private debt collection agencies; the United Kingdom also reported some use of debt collection agencies; the Netherlands reported it has a pilot project underway involving a private firm issuing letters for the collection of low value/high volume tax debts.
  - ***IT infrastructure support:*** Shared Services Canada, a federal agency, provides IT infrastructure services for 43 federal agencies including the CRA. Cyprus also reported use of IT services provided by a separate Government IT department.
  - ***Provision of corporate support services:*** Finland reported there is a service known as "Palkeet" that provides "whole of government" administration of financial and human resource services; the United Kingdom uses external contractors for occupational health assessments.
  - ***Other:*** In Canada, Revenue Quebec, a provincial tax administration, is responsible for federal VAT administration in Quebec, not the CRA.

With increasing Government attention on driving public sector bodies to become more efficient, in particular larger service delivery agencies such as revenue bodies, it seems inevitable that the use of third party service delivery approaches will continue to grow in coming years.

The non-tax roles of national revenue bodies

Reference was made in Chapter 1 to the practice of Governments allocating "non-tax related roles" to revenue bodies and the rationale for doing this (see Table 1.6). To demonstrate the significance of this development, Table 5.9 provides data on the estimated proportion of each revenue body's budget expenditure attributable to non-tax functions for 2005 to 2011 (where available).

Table 5.9. **Expenditure on non-tax roles (% of total revenue body expenditure) /1**

Country	Non-tax expenditure (as % of total revenue body expenditure)							Main non-tax role(s) performed by revenue body (where known)
	2007	2008	2009	2010	2011	2012	2013	
OECD countries								
Australia	11	15	12	13	16	15	16	Superannuation/retirement
Austria	n.a.	23	24	18	20	18	17	Customs, welfare, labour market laws
Belgium	28	29	30	33	35	34	37	Customs, property valuation
Canada	15	16	17	16	15	15	14	Welfare/benefits
Czech Republic	6	5	5	5	5	5	5	
Denmark	13	10	10	n.a.	n.a.	18	17	Customs, welfare
Estonia	n.a.	56	56	56	55	42 /2	38 /2	Customs, welfare
France	42	41	40	40	40	46	46	Public accounting functions, land register, property valuation
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Customs – not quantified
Hungary	0	14	13	0	26	24	24	Customs
Iceland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Benefits – not quantified
Ireland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Customs – not quantified
Israel	n.a.	11	11	21	21	11	10	Customs
Italy	n.a.	20	17	18	17	13	13	Property valuation
Korea	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Benefits – not quantified
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Property valuation – not quantified
Mexico	14	15	21	19	20	19	19	Customs
Netherlands	20	28	28	29	29	30	30	Customs, benefits
New Zealand	31	36	35	38	35	33	30	Welfare/benefits
Norway	4	2	2	6	4	19	20	Property valuation, population register
Portugal	10	10	10	10	10	37	36	Customs, property valuation
Slovak Republic	3	n.a.	n.a.	n.a.	3	42	42	Customs
Spain	n.a.	14	15	n.a.	n.a.	14	14	Customs
Sweden	15	9	9	15	17	20	20	Population register
Switzerland	n.a.	6	5	11	10	5	6	
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	13	14	
United Kingdom	n.a.	n.a.	4	4	4	4	4	
United States	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Benefits – not quantified
Non-OECD countries								
Argentina	n.a.	51	51	51	49	49	48	Customs
Brazil	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Customs – not quantified
China	n.a.	n.a.	n.a.	n.a.	n.a.	17	16	
Colombia	n.a.	n.a.	n.a.	45	45	42	42	Customs
Croatia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Property valuation – not quantified
Cyprus	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	Property valuation
Hong Kong, China	n.a.	n.a.	n.a.	9	10	9	10	Business registration
India	n.a.	n.a.	n.a.	2	2	2	2	
Indonesia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Property valuation – not quantified
Latvia	n.a.	22	17	52	48	47	46	Customs
Malaysia	n.a.	20	10	38	36	40	37	
Romania	n.a.	n.a.	n.a.	20	15	n.a.	n.a.	Customs – not quantified
Russia	n.a.	15	15	13	14	15	15	
Singapore	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Property valuation – not quantified
South Africa	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Customs – not quantified

Source: Tax Administration 2015 survey responses.

The key observations are as follows:

- Rates of expenditure on non-tax functions appear relatively constant over the period 2007 to 2013, suggesting little further recent movement in this practice.
- Responsibility for customs administration is the predominant source of non-tax expenditure in many countries (e.g. Argentina, Austria, Colombia, Denmark, Estonia, Hungary, Latvia, Mexico, Netherlands, and Romania) although the amounts/proportions reported vary considerably – from 14 to almost 50% – for reasons that have not been identified.
- In the case of countries such as Canada and New Zealand, responsibility for Government welfare/benefit-related responsibilities appear to be the primary influencing factor, and in the case of New Zealand are a significant element of overall expenditure (at 30%).

Notes

1. The individual country ratings indicated on p. 176 are based on the definitions set out hereunder:

	Ratings			
	✓✓ Above average	✓ Average	x Below average	xx Well below average
Indicator	✓✓ Very favourable	✓ Favourable	x Unfavourable	xx Very unfavourable
Overall e-filing rates (for PIT, CIT, and VAT) for latest year (Tables 7.3-7.5)	Average 75% across major taxes	Average 50-75%	Average 25-50%	Average below 25%
Fully electronic payment rate in latest year (Table 7.6)	70% or more	Between 50-70%	Between 25-50%	Less than 25%
Average labour force/ FTE ratio in latest year (Table 5.6)	Ratio above 700	Ratio between 501-700	Ratio between 400-500	Ratio below 400
Total administrative costs/ GDP ratio over last five years (Table 5.5)	Generally below 0.15%	Generally between 0.15-0.20%	Generally between 0.20-30%	Generally over 0.30%
Administrative costs/ net revenue over last five years (Table 5.4)	Generally below 0.75%	Generally between 0.75-1.00%	Generally between 1.00-1.25	Generally over 1.25%
Size of office network -relative to country's demographics (Table 2.3)	Relatively small	Medium size	Relatively large	Relatively very large

2. The observation concerning Luxembourg is subject to two qualifications. Officials report that not all IT costs have been quantified, with a major part of such costs being shared with other parts of MOF through support by a separate IT department. Concerning the take-up of e-filing services, while overall performance is poor, reasonable progress has been made in recent years with VAT e-filing, achieving take-up of 50% in 2013.

Notes to Tables

Table 5.2. Salary expenditure/total expenditure-tax administration

/1. **Brazil, Ireland, Romania and South Africa:** Expenditure data includes customs. **Estonia**: Total expenditure excludes IT costs. **Hungary**: Data of the National Tax and Customs Administration, after the merger of two predecessor organisations: Tax and Financial Control Administration and Customs and Finance Guard. **Italy**: Total expenditure data for 2010-13 relate only to revenue body; some prior year data may include other bodies involved with tax work (e.g. Equitalia). **Norway**: Wages do not include employers' contribution to pension plans (8% of wage amount) which is contributed outside the budget of the Norwegian Tax Administrations budget. **Sweden**: Expenditure data (and related ratios) exclude costs of independent Enforcement Agency staff that conducts enforced debt collection activities.

Table 5.3. IT and human resource management expenditure (% of all expenditure)

/1. **Argentina**: Ratio to total cost including customs; IT expenditure includes hardware and software equipment as well as all kind of services and technical assistance on this matter. **Estonia**: In 2012, the Ministry of Finance established an Information Technology Centre (ITCMF). As a result, the ETCB IT budget has moved to ITCMF. **Ireland**: Expenditure for IT related operations does not include employee costs. **Luxembourg**: Major part of IT- and HRM-related costs not quantified as shared with other parts of MOF in separate departments. **Malta**: IT expenditure only for direct tax authority. **Spain**: 2012 and 2013 IT costs include wages of the IT Department (2 063 people). **Switzerland**: Increase from 2012 to 2013 as a result of mayor IT projects and reorganisation to the IT department. **United States**: IT-related operations do not include Business Systems Modernisation investments.

/2. **Estonia**: Total expenditure excludes IT costs.

Table 5.4. Cost of collection ratios (administrative costs/net revenue collections)

/1. Observations and conclusions based on the information in this table should pay close regard to the comments in the related text in this chapter.

/2. The year-by-year data is compiled from surveys conducted among revenue bodies around every two years. For TA 2014, some prior year data items and related ratios (reported in previous editions of CIS) were revised to take account of new data provided by a few revenue bodies or to correct errors detected in the data originally used for these calculations.

/3. **Estonia**: Ratios for 2005 to 2007 include customs operations but not for subsequent years. **Italy:** The computed ratios for these years significantly understate the true ratio as they do not take account of expenditure incurred on tax-related work carried out by other agencies (e.g. tax fraud work of the Guardia di Finanza and enforced debt collection undertaken by Equitalia spa) that have not been quantified. **United States**: Ratios indicated vary from IRS-published ratios owing to use of "net" and not "gross" revenue collections as the denominator.

Table 5.5. Tax Administration expenditure/gross domestic product (GDP)

/1. Observations and conclusions based on the information in this table should pay close regard to the comments in the related text in this chapter.

/2. The year-by-year data is compiled from current and prior surveys conducted among revenue bodies. For TA 2015, some prior year data items and related ratios (reported in previous editions of this series) were revised to take account of new data provided by a few revenue bodies or to correct errors detected in the data originally used for these calculations.

/3. **Italy**: Calculations up to 2009 based on cost data provided for tax related functions of revenue body (Agenzia Entrate), tax-related work of separate tax police body (Guardia di Finanza), and separate tax debt collection function (Equitalia); data not provided for subsequent years.

Table 5.6. Revenue body staff usage and related ratios

/1. Use of the information in the table should pay close regard to the comments in this chapter.

/2. **All countries**: The definition of the number of person-days that constitute one person year (one full time equivalent [FTE]) varies from country to country; for the purpose of this tabulation and related analysis no attempt has been made to apply a standard definition in order to arrive at a more consistently based summary of aggregate FTEs/revenue body. **Italy:** Data refers to Revenue Agency only and excludes Equitalia (debt collection), Guardia di Finanza (tax fraud work) and Sogie (data processing). **Luxembourg**: Staff usage figures not expressed in FTE. **Singapore**: Staff strength at 31 March 2013.

Table 5.7. Staff usage (2013) by major tax function groupings (% of total usage)

/1. The data on distribution of resources should be treated with caution owing to differences in interpretation between countries on the functional split used and organisational arrangements in place.

/2. **Brazil and Ireland**: Data includes Customs. **Chile, Iceland and Sweden**: Data exclude tax debt collection functions; **Italy**: Data for revenue body agency only and excludes Equitalia (debt collection), Guardia di Finanza (tax fraud work) and Sogie (data processing). **Japan**: Inseparable from the audit, investigation and other verification function and debt collection function. **Korea**: Staff in taxpayer account management and verification functions are also engaged in the work of debt collection and there is no dedicated unit for debt collection. **Luxembourg**: Staff usage figures not expressed in FTE. **Singapore**: Staff strength at 31 March 2013. **Spain**: Account management staff also do some verification functions (massive and desk controls).

/3. **Spain**: Staff also supports Customs Department.

Table 5.8. Third party service delivery of tax administration functions

/1. **Australia:** Includes outsourcing of mail and publication distribution, while certain categories of litigation must be outsourced to Australian Government Solicitor. **Canada**: Tax and information returns records retrieval and storage operated by a private sector company as of January 2014. **Israel**: Printing services; **Malta**: Applies only in the case of VAT where the functions include printing, issuing, distributing and storage of receipt books. **Saudi Arabia**: DZIT has contracted the Saudi Post to make express mail delivery to taxpayers. **Singapore**: Civil legal proceedings against recalcitrant taxpayers for not paying their outstanding taxes are outsourced to a law firm to provide legal services/advice relating to suits for tax, bankruptcy and winding-up proceedings. Private liquidators are appointed to manage cases for winding-up. **Spain**: Most of the IT services are developed and provided internally by the IT Department.

Table 5.9. Expenditure on non-tax roles (% of total revenue body expenditure)

/1. Table only shows countries that reported one or more non-tax roles for 2012/13.

/2. **Estonia**: Total expenditure excludes IT costs.

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