



Tax Administration 2019

COMPARATIVE INFORMATION ON OECD AND OTHER
ADVANCED AND EMERGING ECONOMIES



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AND OTHER ADVANCED AND EMERGING
ECONOMIES

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Preface

The 2019 edition of the Tax Administration Series provides wide-ranging comparative information on the performance of advanced and emerging tax administrations and seeks to draw out the main underlying trends and challenges facing global tax administration. The purpose and value of the Tax Administration Series, first published in 2004, is to assist administrations, governments, taxpayers and other stakeholders in considering how and where improvements can be made in the efficiency and effectiveness of tax administration, in particular through enhancing tax compliance, reducing burdens and improving tax certainty.

This has never been more important. The last decade has been a time of unprecedented change for tax administrations with the emergence of new technologies and business models and a vast increase in the scale of digital data, including across borders. We can be confident that the digitalisation of our economy and society will continue at an increasingly rapid pace and that it will have fundamental implications for tax policy and administration at both the global and national levels. The overall mission of our tax administrations, which collectively raise over EUR 11 trillion annually to fund public services, will remain the same. How we achieve that mission, though, and how we rise to the new challenges and opportunities of the digital age will call for different approaches, greater collaboration and, in some areas, for more fundamental changes in how tax administration is performed.

As Chair of the OECD Forum on Tax Administration and Head of the Norwegian Tax Administration, the Tax Administration Series is an invaluable resource in helping to frame those challenges and opportunities. The rich set of comparative information it contains on the functions and performance of tax administrations assists us at both the national and global level in understanding our strengths and weaknesses, and the challenges that we face individually and in common. It also helps us in identifying where tax administrations can best work together to improve the design, management and performance of global tax administration through the sharing of knowledge, collaborative working and by providing thought-leadership.

I would therefore like to thank everyone who has been involved in producing what I hope you will find an engaging and informative report, in particular the teams in each of the 58 tax administrations that have contributed their time and expertise, the authors of the country articles and the OECD Secretariat which led in the preparation of Tax Administration 2019.

Hans-Christian Holte

Chair Forum on Tax Administration
Head of the Norwegian Tax Administration

Foreword

Tax Administration 2019 is the eighth edition of the OECD Centre for Tax Policy and Administration's comparative information series first published in 2004. The primary purpose of the Tax Administration Series (TAS) is to share information that will facilitate dialogue on the design and administration of tax systems.

This edition of the TAS provides internationally comparative data on aspects of tax systems and their administration in 58 advanced and emerging economies, and includes performance-related data, ratios and trends up to the end of the 2017 fiscal year.

The publication presents the results of the second round of the International Survey on Revenue Administration (ISORA) which was launched in May 2018. The ISORA survey is a multi-organisation survey to collect information and data on tax administration. It is governed by four partner organisations: CIAT, the IMF, IOTA and the OECD. For the 2018 survey round, the Asian Development Bank agreed to participate along with the four partner organisations.

This edition was prepared by Oliver Petzold and Peter Green. Considerable support was received from tax officials of the revenue bodies that participated in the preparation of the TAS, including the contributing authors, as noted in the Acknowledgments.

Tax Administration 2019 is published under the responsibility of the OECD Secretary-General.

Acknowledgements

The OECD has produced the Tax Administration Series (TAS), its comparative information series on tax administration, since 2004. Since that time the publication has grown in terms of its coverage, influence and importance and is now widely recognised as an authoritative source of information on tax administration around the globe.

The 2019 Tax Administration Series presents the results of the second round of the International Survey on Revenue Administration (ISORA) which was launched in May 2018. It would not have been possible without the direct support and help of a large number of people, particularly the staff in the 58 tax administrations that provided data and country examples, reviewed content and responded to feedback and questions on the data and text that form the basis of the publication.

The work on the collection and preparation of data and the drafting of this publication was led by Oliver Petzold with the support of Peter Green from the OECD’s Forum on Tax Administration (FTA) Secretariat.

The authors are also thankful to Rex Arendsen, currently seconded by the Netherlands Tax and Customs Administration to the OECD, for his comments on Chapter 1 and to Lyndsay Smyth, Advisor in the Secretariat, for her comments on Chapter 4. They are also thankful for the work of the support team at the OECD Secretariat led by Sonia Nicolas.

The authors also wish to acknowledge the contribution of Michael Hewetson, primary author of the TAS 2017, much of whose work and structure has been followed in this publication.

This edition of the TAS also benefits from articles on topical issues on tax administration authored by officials of the Australian Tax Office, the Canada Revenue Agency, the Danish Tax Administration, the National Tax Agency (Japan), the Netherlands Tax and Customs Administration, the Inland Revenue Authority of Singapore, the Spanish Tax Agency, Her Majesty’s Revenue and Customs (United Kingdom) and the Internal Revenue Service (United States). These articles are featured in Chapters 5 to 14.

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Abbreviations and acronyms

AAT	Administrative Appeals Tribunal
ACRA	Accounting Compliance and Regulatory Authority
ADB	Asian Development Bank
AEAT	Agencia Estatal de Administración Tributaria (Spain)
AEOI	Automatic Exchange of Information
AI	Artificial Intelligence
AIM	Accounting Income Method
ANAO	Australian National Audit Office
APA	Advance Pricing Agreement
API	Application Programming Interface
APS	Australian Public Service
AT	Autoridade Tributária e Aduaneira (Portugal)
ATO	Australian Tax Office
BEPS	Base Erosion and Profit Shifting
BI	Behavioural Insights
BMF	Bundesministerium für Finanzen (Austria)
B2B	Business-to-Business
B2C	Business-to-Consumer
CIAT	Inter-American Center of Tax Administrations
CIT	Corporate Income Tax
CMS	Content Management System
COG	Commissioners on the Ground
COTS	Commercial-Off-The-Shelf
CPC	Canada Post Corporation
CRA	Canada Revenue Agency
CRM	Customer Relationship Management
CRS	Common Reporting Standard
CSO	Chief Service Officer
DFA	Digital Financial Assets

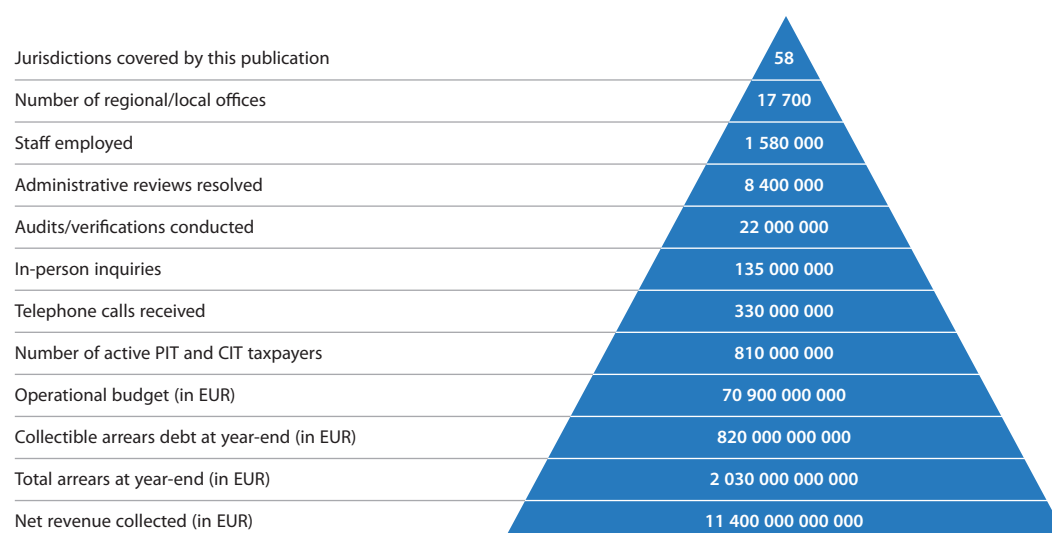
DGFIP	Directorate Générale des Finances Publique (France)
DLT	Distributed Ledger Technology
DRM	Debt Relationship Management
eIDAS	Electronic Identification Authentication and Trust Services
ETCB	Estonian Tax and Customs Board
EU	European Union
FAQ	Frequently Asked Questions
FATCA	Foreign Account Tax Compliance Act
FTA	Forum on Tax Administration
FTA	Finnish Tax Administration
FTE	Full Time Equivalent
FTS	Federal Tax Service (Russia)
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GRS	Georgia Revenue Service
GST	Goods and Services Tax
HMRC	Her Majesty's Revenue and Customs (United Kingdom)
HNWI	High Net Wealth Individual
HR	Human Resource
HST	Harmonized Sales Tax
ICAP	International Compliance Assurance Programme
ICO	Initial Coin Offerings
ICT	Information and communication technology
IMF	International Monetary Fund
IOTA	Intra-European Organisation of Tax Administrations
IRAS	Inland Revenue Authority of Singapore
IRD	Inland Revenue Department (New Zealand)
IRM	Integrated Risk Management
IRS	Internal Revenue Service (United States)
ISORA	International Survey on Revenue Administration
ITD	Income Tax Department (India)
KPI	Key Performance Indicator
KRA	Kenya Revenue Authority
LBD	Large Business Department
LTO/P	Large Taxpayer Office/Programme

MEXT	Ministry of Education, Culture, Sports, Science and Technology (Japan)
MIN	Ministry
MNE	Multinational Enterprise
MOF	Ministry of Finance
NTA	National Tax Agency (Japan)
NTA	Norwegian Tax Administration
NTCA	National Tax and Customs Administration (Hungary)
NTCA	Netherlands Tax and Customs Administration
OCR	Online Cash Registers
OECD	Organisation for Economic Co-operation and Development
PAYE	Pay-As-You-Earn
PIT	Personal Income Tax
PRSI	Pay-related Social Insurance
PSR	Purchase and Sales Registry
QR	Quick Response
RA-FIT	Revenue Administration Fiscal Information Tool
RAFT	Risk Acceptance Form and Tool
RDR	Review and Dispute Resolution
RFB	Federal Revenue Service of Brazil
RPA	Robotic Process Automation
SAT	Servicio de Administración Tributaria (Mexico)
SCM	Standard Cost Model
SII	Servicio de Impuestos Internos (Chile)
SII	Suministro Inmediato de Información (in English: Immediate Provision of Information)
SME	Small and Medium Enterprises
SMS	Short Message Service
SSC	Social Security Contribution
STA	State Taxation Administration (China)
TAS	Tax Administration Series
TCTS	Total Cost to Serve
USB	Unified Semi-autonomous Body
VAT	Value Added Tax
WITB	Working Income Tax Benefit
WHT	Withholding Tax

Executive summary

Together the 58 tax administrations participating in the eighth edition of the OECD's Tax Administration Series (TAS 2019) collect net revenues of EUR 11.4 trillion (2017). They are large and complex organisations employing around 1.6 million staff. They deal with the tax affairs of around 810 million personal income tax and corporate taxpayers who contact tax administration in excess of 500 million times via telephone, in-person, e-mail or paper and generate more than 1.6 billion online contacts. And the tax administrations do this on a combined operating budget amounting to around EUR 71 billion, equivalent to less than 1% of total revenues collected.

Figure 0.1. **Key figures related to the administrations covered in this publication**



Note: The figures are based on data obtained through the 2016 and 2018 ISORA survey. They are minimum figures as not all administrations were able to provide information for all data points. Figures typically relate to the fiscal year 2017. Data for fiscal years 2015 and 2016 was used where 2017 data was not available.

Source: OECD Secretariat calculations based on data included in this publication and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, https://doi.org/10.1787/tax_admin-2017-en.

The TAS, which provides comparative information in over 200 tables covering tax administration performance and profile data, is intended to assist tax administrations in consideration of where further improvements might be made, as well to enhance wider public understanding as to the scale and nature of global tax administration. This edition of the TAS also attempts to draw out, from both the data provided through the International Survey of Revenue Administrations (ISORA) and the examples received from tax administrations,

the most significant changes that are ongoing within global tax administration. It focuses in particular on how tax administrations are increasingly looking at the opportunities to take more proactive approaches to influencing and managing compliance as well as the challenges they face in adapting to the changing resource requirements.

Tax administrations, much like tax policy makers, are exposed to rapid change through the digitalisation of the economy and the emergence of new business models and ways of working. At the same time, the availability of new technologies, new data sources, analytical tools and increasing international co-operation and exchange of information are also providing new opportunities for tax administrations to better manage compliance, tackle non-compliance and protect their tax base.

E-Administration

There has already been a significant shift towards e-administration with increasing options and uptake of online filing of tax returns as well as online payments and the full or partial prefilling of tax returns. Digital contact channels (online, email, digital assistance) now dominate and the number of administrations using or developing mobile applications continues to grow. Electronic data from third parties, including other tax administrations, as well as internally generated electronic data is used in an increasingly joined-up way across tax administration functions for improving services and enhancing compliance. This also shows in the large number of administrations that now employ data scientists.

In addition to important incremental improvements ongoing in all tax administrations, there are also increasing signs of a transition towards a more fundamental shift in the nature of tax administration through more system-wide compliance management as processes become more integrated and holistic and as electronic data sources increase.

Engagement with taxpayers

The backbone of current efforts by tax administrations to manage compliance remains the supporting of positive compliance attitudes of taxpayers to reporting their taxable income and paying tax. This report highlights the different ways that administrations are looking to influence such attitudes, including through:

- *Initiatives to improve the education of taxpayers and communicate social norms:* Most tax administrations are continually looking to improve their reactive processes, online, in-person and by telephone, to make it easier for taxpayers to understand their obligations and how to meet them. This is increasingly being supplemented by proactive outreach through educational initiatives, campaigns and the use of new communication opportunities, including in real-time.
- *The use of taxpayer centric design in the expansion of taxpayer services:* Most administrations report the existence of formal processes for involving stakeholders in the design and testing of their services. There is also a clear trend towards an expanding range of self-services, including the ability to register, file and pay on-line, along with a range of interactive tools.
- *The growing use of behavioural insights as a compliance tool:* While the use of enforcement tools remains a highly important backstop in ensuring compliance, many tax administrations now report moving upstream through the use of behavioural insights and analytics to better understand how and why taxpayers act and to use these insights to design practical policies and interventions.

Compliance risk management

Tax administrations are taking an increasingly proactive approach to compliance risk management, seeking to intervene at earlier stages where possible rather than after tax returns have been filed. This can be seen in:

- *The increasing use of large and integrated data sets:* This has fuelled a significant increase in the use of analytics tools and techniques to improve risk management and help design-in compliance. Most tax administrations employ data scientists and many others are now pursuing recruitment strategies aimed at increasing the number of analysts and other specialists into tax administration.
- *Increasing segmentation and personalised interactions with taxpayers:* Two specific areas where tax administrations have found it advantageous to manage specific groups of taxpayers on a segmented basis are large business taxpayers, and High Net Wealth Individuals (HNWIs). Examples provided by tax administrations now show increasing segmentation in other areas, helping to guide more focused compliance actions and interventions, including at the individual level.
- *A continuing emphasis on co-operative arrangements to manage compliance and enhance tax certainty:* Over the last few years, there has been an increasing focus on the use of co-operative arrangements to manage compliance and enhance tax certainty, often through formal programmes but also through improved transparency.

Compliance by design

Compliance-by-design approaches have been in place for many years for salaried personal income taxpayers through pay-as-you-earn withholding and reporting by employers. These systemic arrangements, now adopted by almost all tax administrations, have helped maximise compliance for this significant part of the tax base. The increasing availability and sharing of data is now allowing such approaches to expand to cover other sources of income, including through the prefilling of tax returns.

While still early days, a number of tax administrations are now looking to introduce systemic approaches for other classes of taxpayer. These include working with software developers on the integration of accounting systems and tax rules, making it easier for smaller businesses to enter pay-as-you-earn type arrangements, and through the introduction of secure chains of information, for example through e-invoicing and the use of secure electronic cash registers.

Tax administration resources

In making the most of these opportunities, tax administrations face a continued management challenge from the pressures of technology change and the changing structure of their workforce. Budgetary constraints continue to bite. While the majority of tax administrations report increasing operational expenditures in absolute terms, on average they are declining in relative terms compared to GDP. There is also significant variation in the amount of operational and capital expenditure on ICT. While this may often be due to different sourcing and business approaches, it may raise the question as to whether expenditure levels in some cases may be somewhat low to support the demands for more electronic and digital services. The workforce in many tax administrations continues to

show an ageing profile on average, although almost all tax administrations now report that they have HR strategies in place. The importance of preparing existing staff for the challenges ahead has also been recognised. Most administrations have a plan that provides for the upskilling of existing staff, with almost all having formal training cycle processes in place.

International co-operation

Finally, one continuing trend seen over the last few years is the increase in the scale and scope of international co-operation. Tax administrations are working together on implementation of the OECD/G20 BEPS actions and in taking concrete steps to improve tax certainty and promote growth. This includes the development of the OECD's multilateral International Compliance Assurance Programme, where taxpayers and tax administrations work co-operatively and multilaterally in close to real-time to undertake risk assessment and assurance of key international tax risks.

International exchange of information has also increased exponentially with the adoption of automatic exchange of information through Country-by-Country reporting, the exchange of rulings and through the OECD/G20 Common Reporting Standard which has made huge numbers of financial accounts held in other jurisdictions visible to tax administrations for the first time.

As is evident from this report, international co-operation and the sharing of knowledge between tax administrations has never been more important as countries undergo significant change at significant cost and as the digitalisation of the economy increasingly transcends national borders.

Reader's guide

Tax Administrations covered by the report

The Tax Administration Series (TAS) 2019 is the eighth edition of the OECD Centre for Tax Policy and Administration's comparative information series. The primary purpose of the series, which commenced in 2004, is to share information that will facilitate dialogue among tax officials on important tax administration issues, and that may also help to identify opportunities to improve the design and administration of their systems.

This edition of the series provides internationally comparative data on aspects of tax systems and their administration in 58 advanced and emerging economies. It covers all jurisdictions that are members of the OECD's Forum on Tax Administration (FTA), except Saudi Arabia which joined the FTA after the launch of the 2018 International Survey on Revenue Administration (ISORA), the data of which underpins this publication. In addition, it includes information on the non-FTA jurisdictions that are members of the European Union (i.e. Bulgaria, Croatia, Cyprus,¹ and Malta) as well as Morocco and Thailand (which increases the report's geographical coverage).

Data gathering process and reporting

The publication presents the results of the second round of the ISORA survey which was launched in May 2018. The ISORA survey is a multi-organisation international survey to collect national-level information and data on tax administration. It is governed by four partner organisations: the Inter-American Center of Tax Administrations (CIAT), the International Monetary Fund (IMF), the Intra-European Organisation of Tax Administrations (IOTA) and the OECD. For the 2018 survey round, the Asian Development Bank (ADB) agreed to participate along with the four partner organisations.

The 2018 ISORA survey collected data for fiscal years 2016 and 2017. Survey information was gathered online using the IMF's Revenue Administration Fiscal Information Tool (RA-FIT). Participation was voluntary and more than 150 administrations completed the survey. Each partner organisation, and the ADB, supported participants, assisting them with the completion of the ISORA survey, based on an upfront agreed key. The 58 administrations included in this publication corresponds to the group of administrations supported by the OECD.

While all data contained in the publication has been subject to a high level review by the OECD, neither the OECD nor any other partner organisation formally validated the data. As a result, all data included in the publication should be considered as self-reported by the administrations concerned.

Data comparability

The TAS includes performance-related data, ratios and other information for the fiscal years 2016 and 2017. In certain areas it also uses data from the 2016 ISORA round to show trends for the period 2014 to 2017. Following the first round of ISORA, changes were made to a number of questions. Therefore, care needs to be taken when comparing results from ISORA 2016 and 2018. Both surveys can be accessed on <http://data.rafit.org> under “Publication/Links”.

Also, it should be noted that statistical data is often subject to revisions after publication. As a result, some data may not correspond to what has been published by administrations. For example, it may be that opening balances of a specific year (t) may not correspond to closing balances of the preceding year (t-1) that were published in earlier editions of this publication.

Even more care should be taken when comparing ISORA data with data gathered through pre-ISORA surveys, i.e. data included in the sixth and prior editions of the TAS. When the ISORA survey was initially created and at the request of survey participants, the four partner organisations have gone to considerable effort to agree and document a range of words and terms used in the survey and their meaning. While this has improved data integrity and comparability between administrations, comparisons with pre-ISORA data may be limited as definitions may now exist for terms not previously defined, or in some instances, have changed.

Further, in relation to combined tax and customs administrations, it should be noted that the data in this publication refers to the tax administration activities of such administrations. The data may therefore not be directly comparable with key performance indicators published by them as these indicators may include both tax and customs related data.

Publication structure

The series examines the fundamental elements of modern tax administration systems and uses data, analyses and examples to highlight key trends, recent innovations, and examples of good practice and performance measures and indicators. The first part of the publication is structured around four chapters as follows:

- Chapter 1 provides an overview of how tax administrations are both responding to the changing tax compliance environment and seeking to shape it to enhance compliance, improve the efficiency of tax administrations and reduce burdens. It explores how tax administrations are using new technologies, tools and insights to support voluntary compliance, improve compliance risk management and move taxation upstream, including through the development of the building blocks for compliance-by-design approaches.
- Chapter 2 looks at the importance of tax administrations to governments and economies in discharging their primary role of collecting taxes as well as other responsibilities given to them. In this respect, it provides information on the aggregate net tax revenues collected as well as other key figures related to activities of the administrations covered in this publication.
- Chapter 3 summarises operational performance data for key areas of tax administration. In so doing, it examines each of the major functions of the tax system. It shows that the digital transformation of tax administrations and

their interactions with taxpayers is well underway. The data shows that overall performance by tax administrations is strong but that there is also room for improvement.

- Chapter 4 looks at tax administrations' governance arrangements and the resources devoted to them. It also provides information on their workforce and sets out challenges that administrations are managing in increasing their capability while managing a workforce that in general terms is reducing in size and on average is getting older.

The second part of the publication includes ten articles authored by participating administrations. These provide a country view on a range of topical issues in tax administration.

The final part of the publication contains two annexes: (i) the tables that include the ISORA survey responses provided by tax administrations² which form the basis of the analysis in this report, and (ii) details of the administrations that participated in this publication. The annex containing the data tables is available in electronic form only.

Data tables

The tables and charts in the publication are all accompanied by a hyperlink (StatLink) that direct readers to a corresponding Excel™ file containing the underlying data. These links are stable and will remain unchanged over time.

All data tables, figures and charts in the main body of the publication contain source notes. Typically, these notes refer readers to the underlying data that is contained in the annex with the data tables.

Symbols and abbreviations that are used in the tables are explained at the bottom of each table. The reader should note that where no data is shown for a specific jurisdiction in a table this is primarily due to it being: a construct of how the survey question was asked; or the opening question to a sub-section of the survey being answered in the negative and, therefore, the jurisdiction did not have to answer the follow-up questions.

Forum on Tax Administration

Readers wishing to find out more about the OECD's work on tax administration should go to www.oecd.org/tax/forum-on-tax-administration/.

Caveat

Tax administrations operate in varied environments, and the way in which they each administer their taxation system differs in respect to their policy and legislative environment and their administrative practice and culture. As such, a standard approach to tax administration may be neither practical nor desirable in a particular instance. Therefore, this report and the observations it makes need to be interpreted with this in mind. Care should be taken when considering a country's practices to fully appreciate the complex factors that have shaped a particular approach. Similarly, regard needs to be had to the distinct challenges and priorities each administration is managing.

Notes

1. Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.
2. For Japan, given that it publishes its currency figures in millions the currency figures included in tables have had added a suffix of “000” in order to fit the survey requirements that currency figures needed to be provided in thousands.

Part I

Comparative information on tax administration

Chapter 1

The changing tax compliance environment

This chapter provides an overview of how tax administrations are both responding to the changing tax compliance environment and seeking to shape it to enhance compliance, improve the efficiency of tax administrations and reduce burdens. It explores how tax administrations are using new technologies, tools and insights to support voluntary compliance, improve compliance risk management and move taxation upstream, including through the development of the building blocks for compliance-by-design approaches.

1.1. Introduction

Chapter 1 of the 2017 edition of the OECD's Tax Administration Series (TAS), the predecessor to this publication, sets out a description of the changing face of tax administration (OECD, 2017^[1]). It highlights how tax administrations are:

- operating in an increasingly globally connected environment
- looking to enhance their technological capabilities
- becoming more collaborative and integrated
- seeking to use data more effectively
- developing better informed compliance management techniques
- looking to adapt the capabilities of their workforce to this changing environment.

It also highlights how disruptive technologies are reshaping the economy by creating new products, services and business models, including new ways of communicating, working and transacting. It also sets out how the expansion of the internet, the availability of portal solutions, social media, mobile platforms, cloud computing, big data technologies and advanced analytics techniques are all creating new opportunities and options for citizens and businesses. These developments are also challenging the way tax administrations go about their work as well as providing new opportunities to administer taxes, support taxpayers and enhance compliance, enabled by the new technologies and tools.

The descriptions of the changing environment in TAS 2017 set out above remain valid, and indeed are sharpened by the increasing pace of innovation resulting from the rapid digitalisation of the economy. This Chapter will not therefore seek to refresh this analysis of the changing nature of tax administrations. Instead it will focus on examples of how tax administrations are seeking to respond to, and to shape the changing compliance environment through innovative approaches to deliver on their core objectives of collecting the proper amount of tax at the least economic cost.

Alongside the data collected through the International Survey on Revenue Administration (ISORA), the tax administrations covered in the TAS are asked to provide examples of innovative practices that they are undertaking to help achieve their objectives. They have provided a rich source of over 100 examples. While these examples are obviously not comparable across tax administrations in the same way as the ISORA data points covered in subsequent chapters, they do tell a forward-looking story of the strategic direction of travel of tax administration, albeit at a different pace and in different forms both across and within tax administrations.

In particular, the examples demonstrate how tax administrations are becoming increasingly proactive in their management of the compliance environment, including through the use of innovative approaches. They show both important incremental changes in this direction and also indicate aspects of potential pathways to a more fundamental change whereby tax administration becomes a seamless process with non-compliance increasingly “designed out” and compliance burdens minimised. (See Chapter 5 on measuring the impact of tax compliance burdens.)

Selected examples in this Chapter are grouped under three categories, although often examples will be applicable in more than one category given the intertwined nature of tax administration:

- **Supporting positive compliance attitudes** through education, taxpayer services and behavioural insights

- **Compliance risk management** and the increasing use of analytics, new data sources, segmentation of taxpayers and co-operative approaches
- **Compliance-by-design** and the development of the building blocks for designing out non-compliance.

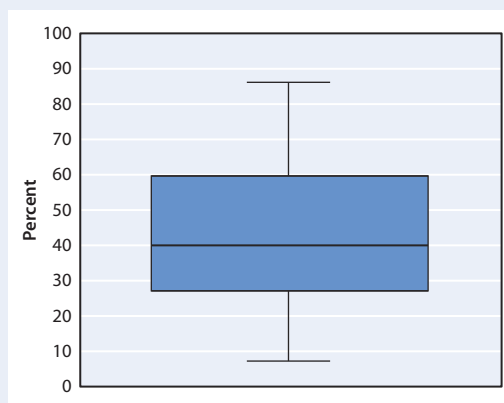
Box 1.1. Innovation

The 2018 version of ISORA asked tax administrations to report as to:

- **Innovative approaches:** (i) the use of agile project management methodology, (ii) the existence of formal structures to nurture innovation, (iii) the existence of formal processes for involving stakeholders in the design of services, and (iv) the establishment of end-user testing of new digital and e-services.
- **Innovative techniques:** the use of (i) blockchain, (ii) robotic process automation, (iii) artificial intelligence, (iv) chatbots, and (v) biometric identification.
- **Existence of specialist positions:** (i) data scientists, (ii) psychologists, (iii) ethnographic researchers, (iv) chief analytics officer, (v) behavioural researchers/scientists, and (vi) computer system analysts.

This high-level overview of the results from this data is illustrated in Figure 1.1 in form of a “Box and Whisker” chart based on positive responses and responses that indicated a particular technique was in place or in the implementation phase. The figure shows that while there are some administrations that score high (upper quartile, between 60% and 90%) the majority of administrations have a relatively low score when it comes to innovation (below 50%), with the median set at 40%. How this evolves over the next few years will be critical for how tax administrations respond to the changing compliance environment.

Figure 1.1. Innovation index, 2017



StatLink  <http://dx.doi.org/10.1787/888933983585>

Sources: OECD Secretariat calculation based on Tables A.26 Approach to innovation, Table A.27 Use of innovative technologies and A.51 Future capability – Specialist positions.

One common theme that runs through much of this Chapter is the degree of innovation which will need to take place among tax administrations in general in order to make full use of the new tools and techniques becoming available. ISORA 2018 contains a limited number

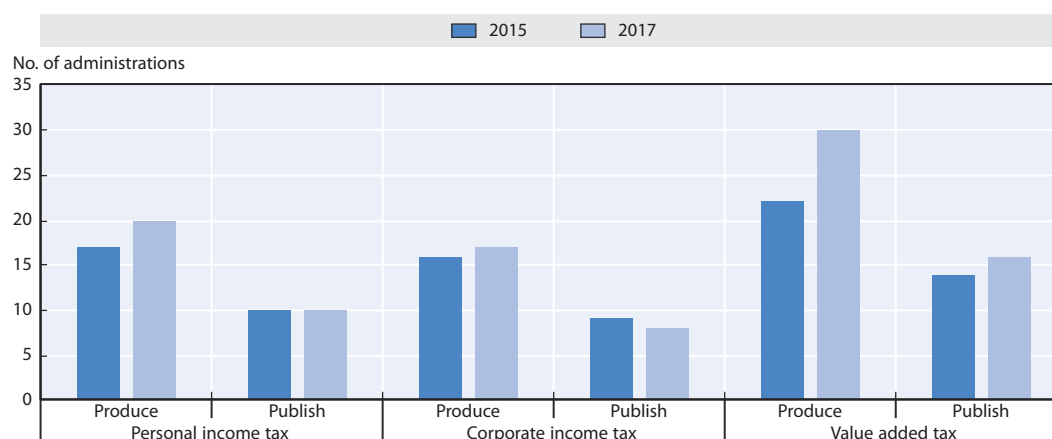
of questions looking at innovative approaches implemented by tax administrations. This has been used to construct a very broad-brush “innovation index” below. Given the importance of innovation for delivering a step change in the effectiveness and efficiency of tax administration, this may be an area where future ISORA surveys may contain additional questions.

1.2. Supporting positive compliance attitudes

Tax administrations rely heavily on the positive compliance attitudes of taxpayers in reporting and paying their taxes. This is often termed “voluntary compliance”.¹ Compliance attitudes are particularly important where tax administrations rely heavily on taxpayers to undertake full and accurate self-reporting of taxable income and taxable events and to make payments. It can be less of an issue where withholding arrangements are in place although such arrangements can also be vulnerable to misreporting as shown by the number of adjustments made in verification/audits of employer payrolls (see Table D.27). In any event, withholding arrangements are only generally in place for wage and salary income and in some jurisdictions for dividends and interest payments. The use of withholding regimes drops off significantly as regards the purchase and sale of assets and business income (see Tables 2.2, A.73 and A.74).

Figure 1.2. Tax gap analysis 2015 vs. 2017

Number of administrations undertaking and publishing tax gap analysis



StatLink <http://dx.doi.org/10.1787/888933983604>

Sources: Table A.146 Tax Gap and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.139, https://doi.org/10.1787/tax_admin-2017-en.

There is no easy or robust measure of the extent of voluntary compliance although some information can be found through tax gap analysis. An increasing number of jurisdictions are now undertaking such analysis, with 31 of the surveyed tax administrations reporting doing so for at least one of the main tax types and 17 of them publishing tax gap information (see Table A.146). More background on tax gap analysis, its uses and limitations, can be found in Chapter 14 of TAS 2017 (OECD, 2017_[1]).

Taxpayer satisfaction surveys can also provide valuable information to individual tax administrations on compliance attitudes. Tax administrations have been conducting taxpayer satisfaction surveys for more than 30 years. In TAS 2019, 83% of participating

administrations indicated that they measure taxpayer satisfaction across at least one of individuals, business or tax intermediary segments (see Table A.114). Around two-thirds publish the results (see Table 1.1).

Table 1.1. **Taxpayer satisfaction surveys by taxpayer segment, 2017**

Segment	Survey conducted		Conducted by administration		Conducted by external vendor		Results published	
	No. of jurisdictions	%	No. of jurisdictions	%	No. of jurisdictions	%	No. of jurisdictions	%
Individual taxpayers	45	77.6	43	95.6	27	60.0	31	68.9
Business taxpayers	42	72.4	40	95.2	26	61.9	29	69.0
Tax intermediaries	30	51.7	29	96.7	17	56.7	21	70.0

Note: A number of administrations conducted taxpayer surveys internally as well as externally.

Source: Table A.114 Taxpayer satisfaction.

In addition, the percentage of on-time filing and on-time payments in a jurisdiction can also give some indication of the degree of voluntary compliance, although by itself it does not give a good picture of the accuracy or completeness of reporting. Table 1.2 gives a comparison between filing and payment rates as reported in TAS 2017 and TAS 2019. This has remained broadly static between 2014 and 2017 and may be expected to improve further as electronic filing and taxpayer services continue to grow.

Table 1.2. **Evolution of on-time filing rates (in percent) between 2014 and 2017**

Tax type	2014	2015	2016	2017
Personal income tax (31 jurisdictions)	84.8	84.2	84.3	85.6
Corporate income tax (32 jurisdictions)	80.4	78.4	79.1	80.7
Employer withholding (WHT) (17 jurisdictions)	86.3	82.7	87.9	86.6

Note: The table shows the evolution of the average on-time filing rates for those jurisdictions that were able to provide the information for the years 2014 to 2017. The number of jurisdictions for which data was available is shown in brackets. Data for value added tax is not available as the 2016 and 2018 ISORA surveys asked for a different data break down.

Sources: Table D.12 On-time filing rates and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.6, https://doi.org/10.1787/tax_admin-2017-en.

Voluntary compliance can, of course, be heavily affected by elements outside of the control of the tax administration, for example the state of the economy, changes in the reporting environment (for example a shift from salaried work to self-employment) and the perceived fairness of tax policy among other things. There are, though, a number of areas where tax administrations can act to support voluntary compliance:

- education and the communication of social norms
- effective taxpayer services
- use of behavioural insights and nudges.

1.2.1. Education and the communication of social norms

Education of taxpayers has two aspects, one around taxpayers' understanding of their own obligations and their abilities to meet them and the other awareness-raising around the role of tax in society. Both are important factors in supporting voluntary compliance. Influencing beliefs, attitudes and norms is generally considered an effective and efficient way to influence compliance behaviour over the long term. In this regard, the majority of tax administrations report carrying out educational or business support activities, and in reality undoubtedly all do so to some extent. This includes the provision of online material and e-learning; information campaigns (including through social media); conferences and community outreach among other forms (see Table A.115).²

Many administration have also developed training seminars targeted at school children and university students. For example, the United Kingdom's Her Majesty's Revenue and Customs (HMRC) has a comprehensive programme for educating its future customers about the requirements to register for tax and the need to update personal details following a change in circumstances, for example moving home. This is done through its Tax Facts programme of tax education for schools which includes a range of teaching material for the 14 to 19 age range, including through animations available on social media. A more detailed description on how Canada and Japan educate future taxpayers is included in Chapters 6 and 7.

The impact of educational initiatives is not yet a well-researched area across tax administrations, although some individual administrations have undertaken or are planning research and evaluation. For example, the Australian Taxation Office (ATO) has commissioned research to understand existing community beliefs, attitudes and norms about the tax and super systems, and to identify opportunities to drive willing participation.

Table 1.3. Selected special educational and business support initiatives, 2017

	Educational activities aimed at university students	Educational activities aimed at school children	Hosting of online seminars (e.g. live streaming, e-learning or videos)	Free tax services for lower income individuals or newly created businesses
No. of jurisdictions	13	20	14	10

Source: Table A.115 Special educational or business support initiatives.

Box 1.2. Educational and communication initiatives

In *Chile*, the Servicio de Impuestos Internos (SII) has adopted a strategy to promote the timely fulfilment of tax obligations with the help and support of a number of business associations. The strategy is put in place through Collaboration Agreements with relevant associations to undertake collaborative work to identify the development of prevention strategies, training activities or direct assistance, taking into account the tax gaps and risks of non-compliance in each sector or segment. This initiative also enables associations: to have direct communication with the SII; to request specific training and support; to seek answers to common taxation problems; to help in the detection of non-compliance; and to propose collaborative solutions. The first Collaboration Agreement was signed in January 2017, and 31 agreements are now in force with more than 180 joint activities undertaken.

Box 1.2. Educational and communication initiatives *(continued)*

In **France**, in order to bolster the public's awareness and consent for paying tax, the Ministries for the Economy, Finance, Government Action and Public Accounts have published a special web page that explains, in practical terms, how tax revenue is used (www.aquoiserventmesimpots.gouv.fr/). This informational page is also directly accessible through each taxpayer's personal account. A simulator is also available so that taxpayers can see where their income tax actually fits into the 2018 budget. Different tabs on the web page let the taxpayer find out more about how the central government budget is used.

In **Georgia**, the Georgia Revenue Service (GRS) has initiated a project called "Let's pay taxes for a better future" which aims to introduce students to the societal role of taxes in funding government services. The GRS has also produced a demonstration version of a taxpayer's secure web-portal allowing students (and other stakeholders) to familiarise themselves with the range of services provided by the GRS.

In **Japan**, the National Tax Administration (NTA) responded to the increasing number of cases where individuals, who were not previously filing tax returns, has started making income from activity through online platforms. The NTA is co-operating with industry groups within the sharing economy and cryptocurrency sectors with the aim of increasing the level of compliance by individuals engaged in person-to-person transactions, and disseminating tax knowledge among individuals who are obliged to file tax returns for the first time. This co-operation involves the industry groups providing guidance to affiliated platform providers, who in turn inform individual platform sellers via their website and via email of their obligation to file tax returns.

In **the Netherlands**, the Netherlands Tax and Customs Administration (NTCA) began using social media in 2012 in order to improve customer service, allowing the greater incorporation of empathy and a personal tone of voice in communications with taxpayers. This also allows communications to be adapted depending on the channel or platform used, although no personal or financial data is communicated online due to data privacy concerns. This has been welcomed by customers who feel that the administration is genuinely engaged in the questions and situations of individual taxpayers. Besides engaging in conversation with customers, the social media team also plays a key role in early identification of urgent and important concerns, informing the administration and its customers of issues such as website outage or phishing attempts. In addition, the team keep track of the way the NTCA is portrayed in online media and how the general public responds to this. Social media channels are also used to provide useful information to tax payers on their tax obligations and rights such as tax filing, information about general tax regulations and applications for benefits.

In **Spain**, the Spanish Tax Agency (AEAT) has been taking highly visible action to tackle the shadow economy and sales suppression systems, helping to communicate and reinforce social norms as well as recover revenue. This has involved the selection of higher risk cases in particular sectors with simultaneous action being taken by regional offices and broadcast publicly, including access to taxpayer premises. In addition to the recovery of unpaid tax, these co-ordinated actions are aimed at improving general compliance within the relevant economic sector and at better social understanding of the importance of anti-fraud initiatives among the wider public.

Sources: Chile – Servicio de Impuestos Internos (2019), France – General Directorate of Public Finances (2019), Georgia – Georgia Revenue Service (2019), Japan – National Tax Administration (2019), the Netherlands – Netherlands Tax and Customs Administration (2019) and Spain – Spanish Tax Agency (2019).

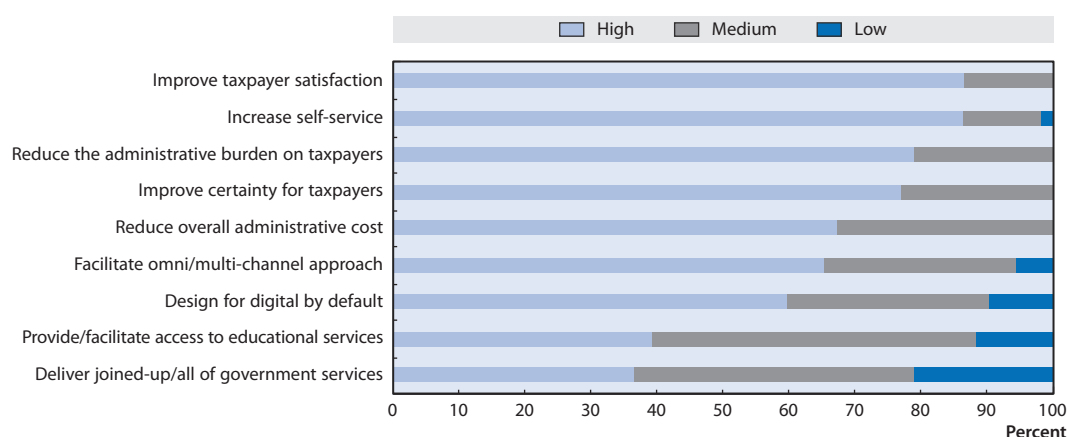
1.2.2. Taxpayer services

An important support for voluntary compliance is the provision of effective and easy to use taxpayer services, both on a reactive and proactive basis. Many taxpayer services are provided successfully and on a cost-effective basis in one-to-many form, such as the provision of guidance or reminders as well as calculation and reporting tools. Expanding use of innovative tools is also allowing increasing personalisation in appropriate circumstances at the level of the individual taxpayer and an increasing range of options for communication and tailored self-service, including on a real-time and 24/7 basis. This is reflected in the priorities reported by tax administrations for taxpayer service strategies.

There are perhaps three particular trends to pull out from the examples provided by tax administrations:

- a clear shift to seeking greater understanding of taxpayer preferences in the design of services (including services for tax intermediaries)
- increasing the options for self-service to allow taxpayers more control as when they want it
- increasingly taking a more joined-up approach to providing services both internally within the tax administration and across government.

Figure 1.3. **Relative priorities of key aspects of tax administrations service and assistance strategy**



StatLink <http://dx.doi.org/10.1787/888933983623>

Sources: Tables A.108 to A.110 Service and assistance strategy.

Understanding and meeting taxpayer preferences

Taxpayer contact volumes are very large scale: 43 administrations reported more than 1.6 billion incoming contacts via online websites or applications, and there are still more than 300 million incoming telephone contacts (see Table 1.4). However, unlike many other services, at the individual level taxpayers will often have very limited periodic contact with tax administrations and for some this may be in relatively stressful situations involving significant sums of money or with risks of penalties in the background. For many taxpayers, expectations will have also changed as regards the availability of services and response times given changes in other aspects of service provision that they experience. The experience, positive or negative, that taxpayers have in their engagements with the tax administration can be a significant factor in shaping compliance attitudes.

In this regard, taxpayer-centric design is becoming a more critical consideration in ensuring that services, which can be expensive to design and maintain, achieve their aims. More than 40 tax administrations now report the existence of formal processes for involving stakeholders in the design and testing of their services (see Table A.26). Chapter 8 sets out the strategies taken by the Inland Revenue Authority of Singapore (IRAS) to understand, engage and partner with taxpayers to help create a socially responsible taxpaying community.

Box 1.3. Engagement with taxpayers to improve services

In *Austria*, the Austrian Tax Administration (BMF) established a pilot project, “e3lab”, to improve customer services through a co-creation platform. Registered community members had the opportunity to submit ideas to improve taxpayer services. The first initiative had the title: “Taxes simply and electronically – Design the employee assessment of the future with your ideas!” The community has grown to around 1 000 members who have put forward 300 ideas for further consideration with experts from the BMF.

In *Canada*, the Canada Revenue Agency (CRA) has recently appointed its first Chief Service Officer (CSO). The CSO has been mandated to guide the development and transformation of the Agency to improve the service experience of Canadians both from a functional and emotional perspective. Going forward, the Agency will be consulting taxpayers to better understand their expectations. Examples of this are a series of “design jams” with key stakeholders and users to co-create service improvements that respond directly to client needs; the “Serving You Better” consultations held every two years with small businesses and tax service providers; and consultations (both online and in person) with individuals. An external advisory panel has also been established comprised of experts from the public, private and non-for-profit sectors to advise on the CRA’s service transformation including best practices for the design and delivery of services. In addition, an internal Service Council has been established to serve as a channel for employees to provide ideas, share feedback, and support CRA’s service transformation through communications and engagement.

In *France*, the French Tax Administration (DGFIP) has organised two “hackathons”, one in April 2016 and one in June 2018. These events, which last several days, enable developers, specialists from the public sector, companies, start-ups and laboratories to come together and help design new computer programmes using the DGFIP’s data and algorithms on an open database. The first hackathon focused on the development of computer programmes for research approaches, for instance to assess the French tax system and its implementation. The second hackathon in 2018 focused on public finance data. It led to the delivery of 21 products – now either finalised or at the prototype stage.

Sources: Austria – Federal Ministry of Finance (2019), Canada – Canada Revenue Agency (2019) and France – General Directorate of Public Finances (2019).

An important aspect of meeting taxpayer preferences is getting the mix of channels right. While there is an increasing shift to the use of electronic services for both convenience and cost-efficiency purposes, a proportion of taxpayers will not have access to, or be comfortable with such services. This calls for considered strategies as to how to influence channel shift for those for whom it would offer better outcomes without adversely impacting the service offering to other taxpayers.

Such strategies of course need to be based on good measurement and understanding of demands and constraints. As reported in both the 2015 and 2017 editions of the TAS, much is still to be done to improve the measurement and reporting of demand. As can be seen in Table 1.4, a large number of administrations are still unable to provide data for taxpayer

contacts across online, telephone, in-person, paper, email and digital assistance contact channels. At the same it is clear from Table 1.4 that the use of digital contact channels (online, email, digital assistance) is increasing, while traditional channels (telephone, in-person and paper) continue to decrease.

Table 1.4. **Service demand by channel**

Channel type	No. of jurisdictions providing data	2016	2017	Change
Online	43	1 609.4 m	1 647.0 m	+ 2.3%
Telephone	49	356.8 m	327.5 m	- 8.2%
In-person	36	148.0 m	125.7 m	- 15.1%
Paper	28	67.8 m	65.9 m	- 2.9%
Email	37	18.5 m	22.1 m	+ 19.4%
Digital assistance	29	10.6 m	14.1 m	+ 32.5%

Note: The table only includes jurisdictions for which data was available for 2016 and 2017.

Sources: Table A.111 Service demand channels and performance – Total, online, e-mail, paper and in person, and Table A.112 Service demand channels and performance – Telephone.

Box 1.4. Approaches to meeting and managing demand

In **Australia**, an initiative is underway to set digital as the preferred channel at the time of registration for Activity Statement obligations. This is based on research showing that clients will usually remain in the channel through which they first enter. Following a successful trial, the ATO changed its phone procedures where staff were asked to encourage and guide callers to set digital as their channel preference. The trial showed an 81% take up rate. The ATO is planning to update its systems so that registrations done via the online business portal will also default to digital delivery.

In **Hungary**, the National Tax and Customs Administration (NTCA) has adopted a more service oriented attitude towards the taxpayers to strengthen the support of voluntary compliance and to ensure that all taxpayer groups have the necessary information and service to meet their obligations. The measures taken by the Administration target a massive reduction of the overall compliance costs by creating more effective Customer Service Centres, allocating the most essential tax services to every Government Window. During this process the number of customer service contact points of the NTCA increased from 117 to 181.

In **India**, the “e-Sahyog” project provides an online mechanism to resolve mismatches in the income tax returns of those whose returns are selected for review, without the need to visit the Income Tax Office. Under this initiative the Income Tax Department (ITD) will provide an end-to-end e-service using short message service (SMS) and e-mails to inform the taxpayer of the mismatch. Taxpayers will simply need to visit the e-filing portal and log in with their user-ID and password to view mismatch related information and submit online responses on the issue.

In **Ireland**, Revenue makes information and digital services accessible to 3.5 million customers. The redesigned website was informed by insights from customers, feedback from staff and the latest research into how people consume information online. 225 staff were involved in the project. Revenue restructured and rewrote 6 000 webpages, adopting style and writing guidelines that ensured that content is written in a clear and consistent manner.

Box 1.4. Approaches to meeting and managing demand *(continued)*

The complete redesign aimed to: improve service by delivering a one-stop-shop that enables and encourages customers to self-serve for information and online services; make services accessible by ensuring availability on all devices (desktop, smartphone, tablet); present content in a way that makes sense to a diverse range of customers. The data is layered in complexity enabling customers to quickly access key information and to navigate to more detailed technical material where needed. A rigorous content management process is in place to ensure that information remains correct and up-to-date.

In *Singapore*, one of IRAS' key initiatives in line with Singapore's Smart Nation vision is digital notifications. Based on behavioural insights and service design, IRAS changed its legislation to facilitate tax notices to be delivered digitally unless citizens opt out in preference for paper copies. In the first wave, electronic property tax bills were delivered to 710 000 properties or 53% of the residential property base at the end of 2017. This was a resounding 93% conversion to digital, with 7% of owners preferring to remain with paper communication. The new property tax notices were also re-designed to appeal to different citizen segments with the use of data analytics. For example, within the bill to citizens with school-going children, IRAS illustrates how property taxes are used to fund education in Singapore, while for elderly citizens the link is made to healthcare funding.

Sources: Australia – Australian Taxation Office (2019), Hungary – National Tax and Customs Administration (2019), India – Income Tax Department (2019), Ireland – Office of the Revenue Commissioners (2019) and Singapore – Inland Revenue Authority of Singapore (2019).

Increasing the options for self-service

Most administrations now report offering an expanding range of self-services, including the ability to register, file and pay on-line, along with a range of interactive tools. Some report exploring with third party providers how they can support embedded software or other arrangements that allow taxpayers a greater array of in-system support or other self-service options.

A number of administrations also report using virtual or digital assistants to help respond to taxpayer enquiries and support self-service. Advances in artificial intelligence (AI) are also being used in some tax administrations, and use of AI may increase rapidly in services supporting taxpayers and tax officials, although perhaps more gradually in decision making given public concerns raised in some countries. Chapter 9 describes an AI-based virtual assistant for value added tax (VAT) implemented by the Spanish Tax Agency.

Table 1.5. **Provision of e-services and tools to support self-service, 2017**

	Chatbots	Artificial intelligence	Information on website	Tools and calculators on website	Online services	Digital mailbox
Already in place	10	5	58	57	53	52
Implementing	7	8				
Planning to use	23	30				

Sources: Table A.27 Use of innovative technologies and Tables A.117 to A.119 Provision of e-services.

Box 1.5. Supporting self-service

In *Australia*, the ATO introduced Alex, a virtual assistant, responding to requests from clients to make it easier to get information and support when they needed it. Alex is available on the ATO website 24 hours a day to help clients with their tax queries. Alex understands conversational language, so clients are able to ask questions as they would when talking to a person. Alex is essentially a highly sophisticated search engine. There are currently over 84 000 question variations which Alex understands. These questions and variations are growing every day. Unlike a web chat service, other than the staff involved in the design and deployment of Alex, it does not require staff support. Since Alex went live in February 2016, over 2.7 million conversations have been held, with an 88% first contact resolution rate.

In *Canada*, the CRA has enhanced and introduced a number of new self-service options to improve the income tax and benefit return filing experience. The “Auto-fill my return” service helps fill in parts of the income tax return with data already available to the CRA, making filing online simpler and easier. For the 2018 tax filing season, Canadians used this auto-fill service over 9.9 million times. ReFILE is an online service that lets individuals and tax professionals submit online adjustments for income tax and benefit returns with certified software and was successfully used 123 609 times in the 2018 tax filing season. “File my Return” is a service aimed at Canadians with a low or a fixed income whose financial situations remain unchanged year-to-year. Eligible Canadians are able to file their income tax and benefit return by providing some personal information and answering a series of short questions through an automated phone service.

In *Kenya*, the Kenya Revenue Authority (KRA) is implementing the Customer Relationship Management (CRM) Solution to achieve full electronic customer service and enhance operational efficiency. The CRM platform consolidates numerous communication channels and allows enquiries, service requests, complaints and compliments to be lodged and tracked from the point of entry into the system to closure, providing a single view of taxpayers’ interactions with the KRA. It provides chat functionality as well as co-browsing options and a Smart Assistant. The solution has also enabled the tracking of email campaigns, customer digital behaviour and attitudes, giving KRA new insights to target email campaigns more effectively and create better public understanding of the country’s tax system. The customer satisfaction index has significantly improved by 6.9 points from 65% to 71.9% and response times have improved significantly.

In *Norway*, the Norwegian Tax Administration (NTA) developed a user-friendly digital tax calculation tool for personal taxpayers, integrated on the NTA website. Taxpayers can use this tool to calculate their expected tax at any time throughout the year, and thereby see the implications of changes in income, deductions and values. This allows a dialogue with the taxpayer at an early stage, and can better protect the taxpayer’s statutory rights by showing them relevant regulations.

Sources: Australia – Australian Taxation Office (2019), Canada – Canada Revenue Agency (2019), Kenya – Kenya Revenue Authority (2019) and Norway – Norwegian Tax Administration (2019).

Another recent trend has been the increasing use of mobile applications by tax administrations. While the main use remains the provision of information and guidance, mobile apps are increasingly allowing taxpayers to keep relevant records, access personal tax accounts, communicate with the tax administration, post information and tax returns and make payments “on-the-go”.

While many tax administrations have developed their own apps internally, a number have also made the relevant application programming interfaces (APIs) available to third party developers. (APIs allow connectivity between systems, people and things without providing direct access. This limits the risk of compromise to the system as opposed to if someone was allowed direct access to the system and the underpinning data stores.) For example, in Singapore, IRAS launched the API Marketplace in 2017, giving third party developers direct access to a suite of API services that can be integrated into taxpayers' natural systems. Its first use-case allowed employers to submit payroll information to IRAS with a single click on their payroll software.

The OECD report *Unlocking the digital economy – a guide to unlocking application programming interfaces in government* (OECD, 2019^[2]) provides an overview of the practices, techniques and standards used to deliver contemporary and effective digital services for taxpayers.

Table 1.6. Services provided via mobile applications, 2017

No. of jurisdictions providing mobile applications	Types of services provided (as percent of jurisdictions that provide mobile applications)				
	Access to information and guidance materials	Access to taxpayer account information	Access to enquiry services	Mobile payment of taxes	Reporting of a tax offense
32	81.3	62.5	50.0	46.9	21.9

Source: Table A.118 Provision of e-services – Mobile applications.

Box 1.6. Mobile app and tax

In **Australia**, the myDeductions tool, one of a number of different functions available in the ATO's app, allows individuals and sole traders to collect, classify and store certain deductions throughout the year such as car expenses, travel expenses, interest deductions, and other tax relevant information. The tool includes the ability to store photos of receipts. This information (but not the images) can then be uploaded directly to the ATO. As well as deductions, clients can also record income (although this is currently only suitable for individuals and sole traders with simple tax affairs). Some of the key benefits of myDeductions include: improved recordkeeping – users can easily capture records on the go or record vehicle trips; support for prefilling data into myTax and making this information available to the client's tax agent; and the ability for users to back up data to their personal cloud storage.

In **Brazil**, the Federal Revenue Service of Brazil (RFB) provides the most requested services via mobile devices. Among other services, every taxpayer can now generate their Individual Taxpayer Registration Number, make payments and check information about the import of goods. The My Income Tax App also allows taxpayers to complete and file their personal income tax returns via mobile devices.

In **Chile**, the e-Renta (electronic income tax) application facilitates and fosters the voluntary filing of income tax returns. The app allows taxpayers to view and accept their proposed income tax statement, which is based on third-party information, including refund information. This is especially useful for taxpayers who have a simple tax situation (such as independent workers or dependent workers with tax benefits who request tax refunds). The app also allows taxpayers to check the status of the income statement and to know if refund requests have been accepted. The declaration process was simplified in the design of the app:

Box 1.6. Mobile app and tax *(continued)*

entry of the taxpayer's secret code, review of the amount to be paid or the refund request, entry of bank account details and acceptance of the proposal. More than 170 000 taxpayers have downloaded the application and more than 120 000 taxpayers filed the declaration by this means.

In **Mexico**, the Mexican Tax Administration (SAT) has developed a mobile application which offers the following services; registration and the ability to update means of authentication; checking the authenticity of a document issued by the tax authority; viewing financial indicators; tutorials for taxpayers and guidance in tax procedures; the ability to schedule appointments with the tax administration; filing of complaints; sending and viewing tax returns; issuing and viewing electronic invoices; viewing the status of tax obligations. The application has been important in supporting tax compliance and in strengthening tax culture in Mexico.

In **Portugal**, the Portuguese Tax and Customs Authority (AT) has introduced mobile apps which allow taxpayers to deal with many aspects of their tax affairs, providing a range of services to facilitate tax compliance. The most recent app is intended to support payment deadlines and payment of arrears. The application is divided into four areas: payments, refunds, identification data and a portal to the tax administration. A number of payment options are supported, including through ATM machines, MBWAY (a mobile payment app), and through the use of Quick Response (QR) Code references for use at certain face-to-face payment locations. The application also issues notifications, alerting taxpayers about amounts receivable or to be settled, with associated deadlines.

In **Thailand**, the Revenue Department has developed a mobile web application for the public to help support compliance, for example by reporting businesses that do not issue tax invoices or issue incorrect tax invoices as well as businesses that charge additional VAT when customers ask for a tax invoice. Members of the public can also upload such information, including photos and locations, in 5 easy steps via the Revenue Department's website (www.rd.go.th). All information is kept confidential and is protected by law. The web and mobile applications were launched at the beginning of 2018.

Sources: Australia – Australian Taxation Office (2019), Brazil – Federal Revenue Service of Brazil (2019), Chile – Servicio de Impuestos Internos (2019), Mexico – Servicio de Administración Tributaria (2019), Portugal – Autoridade Tributária e Aduaneira (2019) and Thailand – The Revenue Department (2019).

Increasingly joined-up approach

As noted in TAS 2017, tax administrations have become increasingly joined-up internally, sharing data between different administration functions to provide better services for taxpayers as well as increasingly to create a holistic view of individual tax payers for compliance purposes.

More tax administrations are now also reporting increasing efforts to join-up with other government agencies to enhance the overall service experience across government, including through “collect once, use many times” approaches. Tax administrations (together with social security agencies) have a special place within government in this respect since they will often hold up-to-date verified information on identity, will be involved in both receiving and making payments and will receive and send information to third parties (such as financial institutions and employers).

Box 1.7. Joined-up services

In **Canada**, “Tell-Us-Once” is a Government of Canada strategic priority aimed at minimising duplicate client interactions across multiple government organisations. As an important first step toward a single window Government of Canada online self-service, the CRA partnered with another Government of Canada department, to analyse, develop and implement tell-us-once capability. In November 2017, the CRA established the framework for this consent-based exchange of information, launching a new service whereby Canada Pension Plan recipients can update their direct deposit banking information with one Government of Canada organisation which automatically updates their profile with the other organisation.

In **Finland**, the Finnish Tax Administration (FTA) maintains the Incomes Register, a centralised national database for information on individuals’ income. It contains comprehensive data on earned income, pensions and benefits. All employers (in 2019) and all payers of benefits (in 2020) are obligated to report information on incomes paid out to the Incomes Register in real time. The data is be used by the FTA, the Social Insurance Institution of Finland, the Unemployment Insurance Fund as well as earnings-related pension providers and the Finnish Centre for Pensions as of 2019. A number of other agencies will be able to use the data in specified circumstances from 2020. The Incomes Register will: give individuals a real-time overview of their income and benefits data; simplify data users’ decision-making processes; facilitate real-time monitoring; and assist in identifying non-compliance, including as regards the shadow economy.

In **France**, the tax authorities have been working towards streamlining services through its “Tell us once” policy. The FranceConnect service allows users to sign on with one of four digital accounts linked to FranceConnect. One of these four accounts is the tax identification number for connecting to impots.gouv.fr. This is a major step towards making all administrative procedures paperless. Nearly 4 million people have already signed up for FranceConnect, and more than 300 government web portals are participating. It is now backed by the “FranceConnect Platform” initiative – technological architecture that allows secure transmission of data and services via application programming interfaces.

In **Luxembourg**, the Government has developed MyGuichet.lu, an interactive secured online platform which brings together a wide range of online services. The platform, which is designed for individual and business users, gives access to several administrative formalities and procedures of participating authorities. It is also possible to access, check and correct personal data held by different authorities and if necessary to print off official documents. As regards the Direct Tax Administration, the platform allows among other things: the submission of income tax returns (for both natural persons and legal entities); the declaration of salary or pension account statements; filing of country by country reports; and the updating of information, for example whether to be treated as a resident or non-resident for individual taxation.

Norway has developed a digital consent-based loan application scheme in collaboration with the financial sector. With customer consent (in “single use” form), banks can now have digital access to high quality information from the tax administration about the applicants’ income and their tax return, which simplifies the application process for home loans and personal loans. This reduces paperwork and also ensures better data quality for the bank’s loan officer when considering an applicant’s credit rating. Loan applications can be entirely computer-processed within a matter of minutes. The savings are estimated to be from EUR 600 million to EUR 1.3 billion over a ten-year period.

Sources: Canada – Canada Revenue Agency (2019), Finland – Finnish Tax Administration (2019), France – General Directorate of Public Finances (2019), Luxembourg – Direct Tax Administration (2019) and Norway – Norwegian Tax Administration (2019).

1.2.3. Behavioural insights and the use of “nudges”

Behavioural insights is an interdisciplinary field of research using principles from the behavioural sciences such as psychology, neuroscience, and behavioural economics to understand how individuals absorb, process, and react to information. These principles can be applied to design practical policies and interventions with human behaviour in mind. This can be particularly powerful when combined with insights gathered from the analysis of increasingly large volumes of data available to tax administration, both internally and externally generated.

Increasingly tax administrations report employing behavioural researchers (see Figure 4.18) and using behavioural insights in specific areas to influence voluntary compliance both in particular cases as well as to improve general attitudes towards the tax administration. While it remains a relatively new or niche function in many tax administrations, the demonstrated impacts suggest it is likely to be increasingly mainstreamed into wider tax administration strategies and interventions over time. Chapter 10 sets out the wider background to the development and use of behavioural insights in tax administration.

Box 1.8. Behavioural insights in SMS campaigns in Australia

In *Australia*, the ATO has long used SMS campaigns in payment and lodgement strategies. The original initiative was designed to prompt on-time payment or re-engagement. The SMS campaigns were designed to be light touch and low cost interactions. The SMS campaigns sought to encourage different behaviours depending on the population. These included prompting: payment from debtors with an upcoming liability or an overdue debt; engagement from debtors who defaulted on their payment plan; and the use of online ATO self-help services.

The following behavioural insights principles were applied in the SMS messages across all the campaigns and are continually refined on the basis of experience and research: personalisation; timeliness; rewarding desired behaviours; active language; and simplification.

The ATO reports the campaign results were extremely positive, playing an important role in improved debt collection revenues.

Table 1.7. Outcomes of the Short Message Service (SMS) Campaigns

	2014-15	2015-16	2016-17	2017-18
SMS issued	247 000	540 000	560 000	850 000
Total liabilities collected (AUD)	834 million	949 million	800 million	1.6 billion

Source: OECD (2019), *Successful Tax Debt Management: Measuring Maturity and Supporting Change*, www.oecd.org/tax/forum-on-tax-administration/publications-and-products/successful-tax-debt-management-measuring-maturity-and-supporting-change.htm.

1.3. Compliance risk management

The OECD report *The Changing Tax Compliance Environment and the Role of Audit* (OECD, 2017^[3]) looked at the range of incremental changes occurring across tax administrations which, taken together, were changing the nature of the tax compliance environment, allowing for more facilitated and managed compliance.

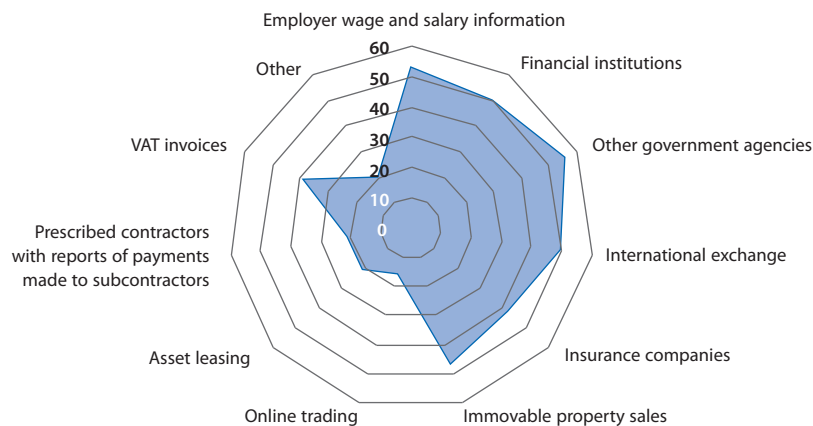
This section looks at four aspects of this changing environment: the hugely increased availability of data; sharpened targeting of risks; co-operative compliance and transparency; and increased automation of compliance checks. These can all be seen as stages in the pathway to greater compliance-by-design, explored in the next section, whereby facilitation and management of compliance morphs into processes that become increasingly embedded into taxpayers' natural systems and make the collection of tax more seamless and frictionless. (This building blocks for this possible paradigm shift in the nature of tax administration will be explored in the forthcoming Forum on Tax Administration (FTA) report on Tax Administration 2030.)

1.3.1. Increasing availability of data

As more and more data is stored electronically, and the transfer, storage and integration of data has become easier through the application of new techniques and processes, there has been a huge increase in the amount of data available to tax administrations for compliance purposes.

Figure 1.4. Use of third party data, 2017

Number of administrations that use the particular data.



StatLink  <http://dx.doi.org/10.1787/888933983642>

Sources: Tables A.153 and A.154 Use of third party data.

Data sources include:

- **Data from devices:** data can be collected from devices that register transactions such as online cash registers and trip computers for taxis and trucks, but also gate registrations or barriers and weigh bridges. In Switzerland taxi drivers as well as others who drive for commercial purposes are obliged to use a tachograph in their

taxi which registers the trip period and rest period of the car. These tachographs help to determine possible under-declaration in tax returns.

- **Data from banks, merchants or payment intermediaries and service providers:** This allows direct verification of income or assets reported by the taxpayer. Some countries already receive transaction details or transaction totals for taxpayers on a regular basis. For example HMRC receives data from processors of credit and debit card transactions to support the identification of suspected suppression and evasion.
- **Data from suppliers:** Collecting data from suppliers, either directly or through the taxpayer, allows a more complete picture to be drawn about the activities and income of the taxpayer. This is seen in the increasing use of e-invoicing systems.
- **Data from the customer:** This is easiest in cases where the number of customers is limited and known, but increasingly mechanisms to leverage customers in compliance are being used, for example in the verification of cash receipts.
- **Unstructured data concerning the taxpayer:** Increasingly electronic traces relevant to business activities and transactions can be found on the internet and in social media. For example Sweden has gathered information on poker players via online tournaments in order to find individuals that have not reported their gains to the tax agency.
- **Data from other government agencies:** Data held by other government agencies for example for licensing, regulatory or social security purposes can be relevant in verifying tax returns or in risk assessments. For example Singapore uses vehicle records and employee Central Provident Fund contribution data to help determine whether a company has a business presence, thus indicating if it is active or dormant.
- **Data from international partners:** New international exchanges of data commencing under the Common Reporting Standard and Country by Country Reporting is massively increasing the quantity of data available on international activity and providing useful information for audit and case selection processes and in some cases for prefilling of tax returns.

Box 1.9. Use of data in large scale compliance intervention in Italy

In *Italy*, the Italian Revenue Agency (Agenzia delle Entrate) used data from a number of different sources (fiscal data, data from external entities, data from invoices and information received under the Common Reporting Standard) to send about 1.5 million communications to taxpayers. These communications – certified electronic mail for businesses and ordinary letters for individuals – alerted them of potential errors in their tax returns. The communications included an invitation to taxpayers to either provide justification for the apparent irregularity by phone or through sending documentation or to correct their information by submitting a supplementary tax return. In the latter case, it was made clear that they could avoid the subsequent control activity by paying the additional due taxes and reduced penalties.

As a result of this compliance promotion activity, taxpayers spontaneously made payments of over EUR 1.3 billion in 2017.

Source: Italy – Agenzia delle Entrate (2019).

There are, though, some emerging risks to the availability of large data sets. In particular, it is increasingly possible for data relevant to the tax administration in one jurisdiction to be held within the territory of another jurisdiction. In these circumstances, it can be difficult to obtain the data on an automatic basis from the data holder located in another jurisdiction. This could make it more difficult to risk assess in some circumstances, as well as prefilling of tax returns or the development of compliance by design processes.

An example of this comes from the growth of the sharing and gig economy facilitated through online platforms which can operate across border. This may become an increasing risk as the online economy grows, particularly if it is accompanied by a shift from salaried employment (and the reporting of incomes by employers) to self-employment. This issue was considered in the OECD report *The Sharing and Gig Economy: Effective Taxation of Platform Sellers* (OECD, 2019^[4]). That report looked at a number of strategies currently being adopted by tax administrations as well as their constraints and recommended the development of standardised reporting requirements to facilitate possible future automatic exchange of information between tax administrations.

Box 1.10. Compliance and the platform economy

In **Finland**, legislation allows the FTA to retrieve tax relevant data in bulk form from digital platforms located within Finland without having to identify the individuals concerned. (Such pre-identification can be challenging or even impossible in the case of digital platforms.) Data is also collected from credit card companies, ATM cash withdrawals, banks (including cross-border transactions), payment service providers and cryptocurrency exchanges. This data can be used for risk management, analytics and control purposes. This has been helpful in controlling risks associated with platform economy and cryptocurrencies. By using cross-border bank transaction data, the FTA has found approximately ten thousand sharing economy service providers related to accommodation and taxi businesses. It has also allowed the FTA to launch over 550 Bitcoin related tax audits. In the light of this, and supported by media campaigns, spontaneous reporting by taxpayers has increased with over 7 000 bitcoin related tax declarations made in the year to May 2018, which produced income over EUR 40 million, mainly in capital gains.

In the **United Kingdom**, legislation has enabled HMRC to hold an online marketplace jointly and severally liable for future unpaid VAT due from an overseas business selling goods in the United Kingdom via that marketplace. Since announcing these new measures HMRC has received around 43 500 applications to register for VAT by online non-EU based businesses. HMRC has also issued more than 3 200 notices to online marketplaces resulting in the removal of non-compliant sellers. In 2018 the United Kingdom extended the joint and several liability rules for online marketplaces to include United Kingdom businesses where they either knew or should have known that an overseas business should have been registered for VAT. The United Kingdom now also requires online marketplaces to display a valid VAT number for businesses on its platform if provided with one.

Sources: Finland – Finnish Tax Administration (2019) and the United Kingdom – Her Majesty’s Revenue and Customs (2019).

Another risk that has been identified is that posed by digital financial assets (DFAs), such as cryptocurrencies. The owners of DFAs can be very difficult to trace even though they may be linked to the creation of a specific digital wallet (which is somewhat similar to a bank account). Tracking down the individuals or entities behind particular wallet addresses is at best very difficult and resource intensive.

While not a risk as such, data protection requirements can limit the circumstances in which data can be kept, processed or shared. In this regard it may also be useful for further work to be done on looking at the case for the controlled use of data for improving taxpayer services and for making tax a seamless process over time rather than the current focus on the use of data for dealing with suspected non-compliance. In this regard, the use of blockchain applications both in keeping data secure and allowing for greater control of its use may offer significant opportunities. (See Chapter 11 for more information about future blockchain scenarios and their potential impact on society and revenue bodies.)

1.3.2. Sharpened targeting of risks

Over recent years there has been a significant increase in the application of advanced analytics to risk management. (The OECD report *Advanced Analytics for Tax Administration: Putting data to work* (OECD, 2016^[5]) provides practical guidance on how tax administrations can use analytics to support compliance and service delivery.)

Thirty-five tax administrations report employing data scientists (see Figure 4.18) and many others are now pursuing recruitment strategies aimed at increasing the number of analysts and other specialists into tax administration.

Increasingly sophisticated use of analytics on expanding data sets is leading to a sharpening of risk management and the selection of a range of intervention actions, including through automated processes.

Box 1.11. Use of data analytics in risk assessments

In **Belgium**, the Belgian Tax Administration developed four predictive models that resulted in reducing the tax debt. The Iris model helps risk manage VAT and withholding tax debts and predicts if a person or a company will pay their debt within 14 days after receiving a phone call from the Debt Relationship Management (DRM) unit. The Pegasus model, is used after the application of the Iris model. If debtors do not pay their debts after a phone call, Pegasus will predict if they will pay after sending a bailiff. The Delphi model predicts the solvency rate for companies, the self-employed and individuals. The Hermes model is a payment prediction model which predicts if a person or company will pay their debt within one year using the high-risk non-compliant accounts identified in the Delphi model. These models are all used to guide possible interventions and next steps by the DRM unit.

In **Canada**, data is extracted from several CRA systems to identify the highest risk taxpayers in the small and medium enterprises (SME) population. The data is corrected to remove incomplete or incorrect data, and linked into comprehensive datasets of taxpayers' filing and assessment information, risk profiles, historical audits, collections and appeals information. Data mining/machine learning algorithms, including cluster analysis, decision trees, neural networks, and deep learning, are used in developing the SME predictive models for income tax and goods and services tax (GST)/harmonized sales tax (HST). These methods analyse the data in the comprehensive datasets in order to score and identify the highest risk taxpayers. Predictive modelling complements risk assessment systems by using algorithms to learn from data and discover unseen patterns, providing additional insight to identify and assess risk.

In the **People's Republic of China (hereafter "China")**, the State Taxation Administration (STA) has introduced a cloud-based big data platform. The platform has so far collected four main types of core business data covering: individual income tax administration; VAT invoices; export tax rebates; external data and historical data. The total number of database tables exceeds 200 000. This data is applied within 264 data models to manage risk.

Box 1.11. Use of data analytics in risk assessments *(continued)*

In *Spain*, AEAT has developed a tool, “HERMES”, as a further step in the path to reach a single system for taxpayers’ risk analysis and the selection of intervention options. The HERMES system leverages off the significant amount of taxpayers’ data incorporated into AEAT’s databases, issuing standardised reports as a conclusion of the risk analysis process. Defined risks and profiles can then be used in taxpayer selection procedures for control purposes. The HERMES tool also optimises the use of new international sources of information (including from automatic exchange of financial account information, country by country reporting and exchange of rulings). The system has the flexibility to adapt to emerging risks and to the incorporation of new data sets.

In the *United States*, the Internal Revenue Service is developing a data-driven risk assessment product that uses machine learning to identify high, medium and low risk potential among the entire large business and international corporate return population. The Data Science Team used a Bayesian analytical model to instruct the product on the type of return that is currently used in the relevant taxpayer groups. The Team, in collaboration with a cross-functional group of large business and international subject matter experts, then defined specific risk attributes based on actual examination experiences. Work is ongoing to look at ways to leverage this example of machine learning to develop better risk assessment capability across other return populations as well.

Sources: Belgium – Federal Public Service Finance (2019), Canada – Canada Revenue Agency (2019), China – State Taxation Administration (2019), Spain – Agencia Estatal de Administración Tributaria (2019) and the United States – Internal Revenue Service (2019).

Another approach for targeted risk management is the creation of units looking into the tax affairs of specific taxpayer segments. Two specific areas where tax administrations have found it advantageous to manage specific groups of taxpayers on a segmented basis are large business taxpayers, and High Net Wealth Individuals (HNWIs). The rationale for focusing administration resources on managing these groups revolves around the:

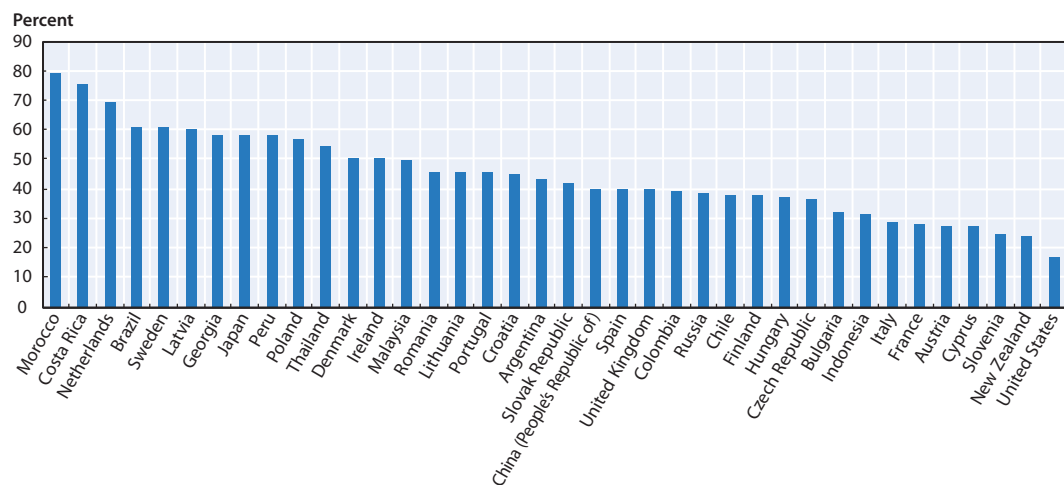
- *Significance of tax compliance risks:* due to the nature and type of transactions, offshore activities, opportunity and strategies to minimise tax liabilities; and in the case of Large Business, the differences between financial accounting profits and the profits computed for tax purposes.
- *Complexity of business and tax dealings:* particularly the breadth of their business interests and in the case of HNWI, the mix of private and tax affairs.
- *Integrity of the tax system:* the importance of being able to assure stakeholders about the work undertaken with these groups of taxpayers

Additionally, in the case of large taxpayers, a small number of taxpayers are typically responsible for a disproportionate share of tax revenue collected. Data collected as part of the 2018 ISORA survey indicates that for most jurisdictions that were able to provide the data between 35% and 60% of their total net revenue, including withholding payments on behalf of employees, was received from taxpayers covered by their large taxpayer programmes (see Figure 1.5).

While management of these groups of taxpayers is often undertaken as a programme, a large number of survey participants report that these programmes were also structural involving a Large Taxpayer Office or HNWI unit. The scope of the work of these units

varies considerably, ranging from undertaking traditional audit activity, through to “full service” approaches that encompass co-operative compliance approaches.

Figure 1.5. Percentage of revenue collected through large taxpayer offices/programmes, 2017



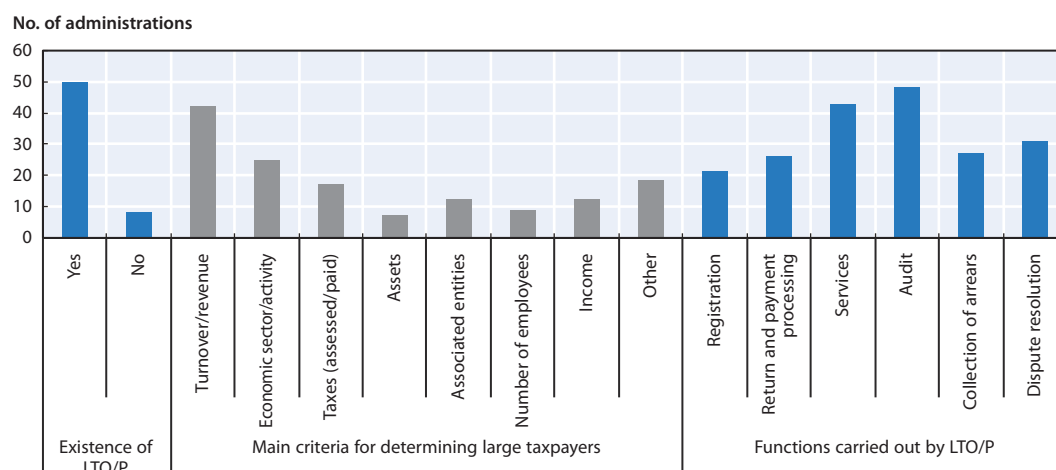
StatLink <http://dx.doi.org/10.1787/888933983661>

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

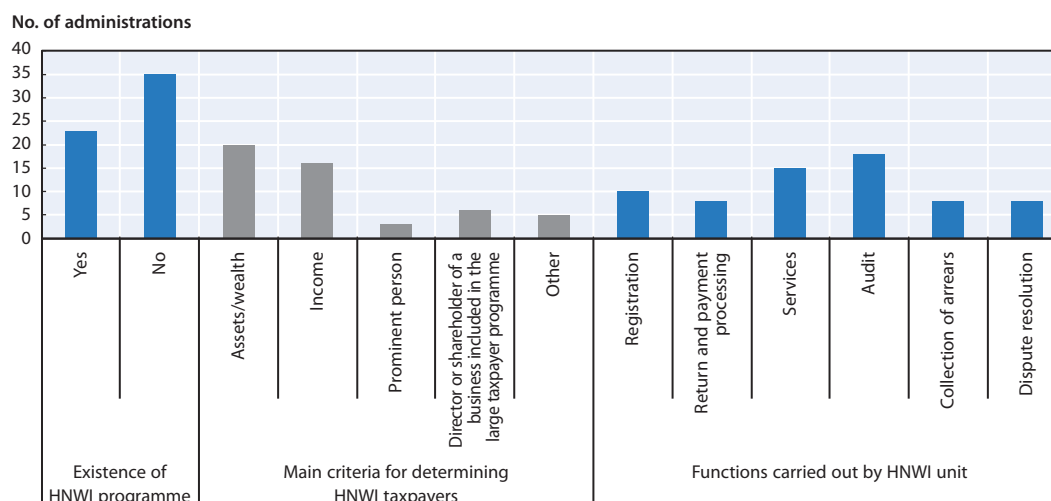
Source: Table D.10 Segmentation ratios: LTO/Ps.

Figure 1.6. Large taxpayer offices/programmes, 2017



StatLink <http://dx.doi.org/10.1787/888933983680>

Sources: Tables A.52 to A.54 Large taxpayer office/programme.

Figure 1.7. **HNWI programmes, 2017**

StatLink <http://dx.doi.org/10.1787/888933983699>

Sources: Tables A.56 to A.58 High net wealth individuals (HNWIs) programme.

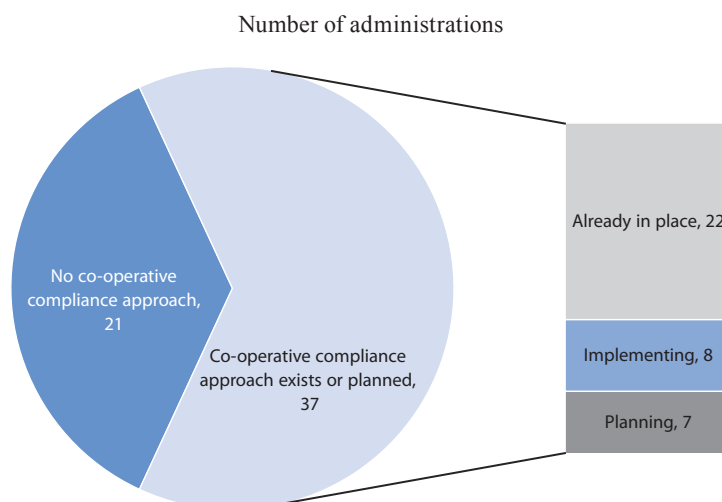
Box 1.12. HNWI compliance strategy in Romania

In *Romania*, a co-operative compliance programme for HNWI has been implemented with the aim of designing effective and efficient approaches to improve compliance. Each person in the HNWI category (with assets over EUR 25 million) benefits from the services of a dedicated inspector that will manage the specific tax compliance issues and will offer customised quality services. Among the main benefits for the HNWI taxpayer is a better understanding of the tax issues, increased certainty, lower costs and a reduction of the time needed to comply.

Source: Romania – National Agency for Fiscal Administration (2019).

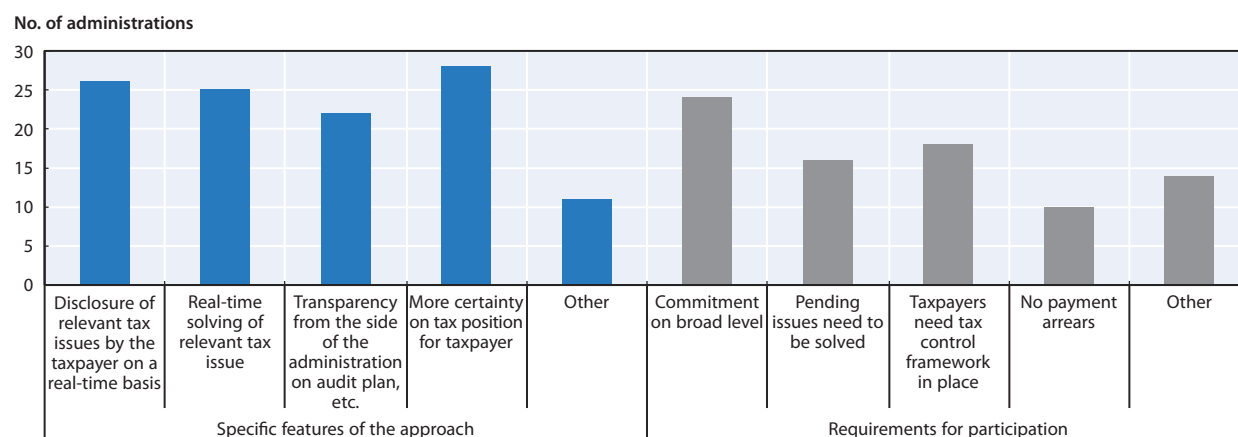
1.3.3. Co-operative compliance and transparency

Over the last few years, there has been an increasing focus on the use of co-operative arrangements to manage compliance and enhance tax certainty, often through formal programmes but also through improved transparency. These programmes involve a more transparent relationship and more proactive approaches to resolving material tax risks. The concept of co-operative compliance has been the subject of several OECD reports, most recently *Co-operative Tax Compliance: Building Better Tax Control Frameworks* (OECD, 2016_[6]). The number of administrations which have now set up formal co-operative compliance programmes has continued to increase.

Figure 1.8. **Cooperative compliance approaches: Existence and implementation status, 2017**

StatLink <http://dx.doi.org/10.1787/888933983718>

Source: Table A.150 Cooperative compliance – Existence and nature of the model.

Figure 1.9. **Cooperative compliance approaches: Features and requirements, 2017**

StatLink <http://dx.doi.org/10.1787/888933983737>

Sources: Tables A.151 Cooperative compliance – Participation and specific features of the approach and A.152 Cooperative compliance – Requirements for participation.

Box 1.13. Cooperative compliance approaches

In *Australia*, the ATO introduced an approach, based on the OECD’s justified trust concept, to positively assure the tax compliance of large public and private corporate groups. To achieve justified trust, the ATO seeks objective evidence that would lead a reasonable person to positively conclude a particular taxpayer paid the right amount of tax. This is a higher level of assurance than confirming certain risks do not arise. Under the ATO’s justified trust programmes, the agency uses tailored one-to-one interactions with the top 100 public and multinational businesses and largest 320 private and wealthy groups. The agency applies a more streamlined approach to justified trust for the next largest 1 000 public and multinational businesses. These populations represent more than two thirds of the corporate tax base. These interactions seek to: understand the taxpayer’s tax governance framework; understand the taxpayer’s economic performance and the reasons why tax outcomes may differ; understand any new or significant transactions entered into by the taxpayer; and identify if the taxpayer is involved in arrangements that the ATO has indicated are of concern or considered high risk. The ATO has observed increasing openness and transparency by taxpayers as they seek greater levels of assurance over their tax affairs. Some taxpayers are communicating the results of these reviews to their other stakeholders.

In *Austria*, the Austrian Financial Administration together with the Chamber of Commerce, the Federation of Austrian Industries and the Chamber of Chartered Public Accountants and Tax Consultants, has developed a concept for accompanying monitoring of large tax-paying businesses on a voluntary basis. This is termed “Horizontal Monitoring” and looks at trust and transparency issues between the administration and businesses. Besides tax reliability, participation in the project also requires the presence of internal as well as external control mechanisms. Following a pilot project, Horizontal Monitoring was implemented more widely in 2018 in Austrian legislation.

In *China*, the Large Business Department (LBD) at the STA’s headquarters conducts risk management of over 1 000 large business taxpayers through the use of big data, risk analysis, risk response and feedback. The LBD has designed a series of risk identification indicators and models for computers to rate and identify risks and draft risk identification reports automatically, with the models updated based on experience. In terms of large taxpayer service, differentiated management strategies and tailored services have been developed, including improving tax certainty, enhancing co-operation between large taxpayers and tax authorities and providing risk related services for specific industries. STA has also set up a new service targeted at large business restructuring, which usually involves multiple regions and tax types. This new service will help to co-ordinate and resolve difficult tax matters in large businesses’ restructuring processes based and thus improve tax certainty and consistency in implementation.

In *Estonia*, the Estonian Tax and Customs Board (ETCB) is developing a new e-service – Tax Behaviour Information. Data on turnover, number of employees, average salary, tax debts, shortcomings in complying with tax law, background of the management and other information will be used as an input to a number of risk criteria. A tax compliance rating will then be calculated, including the risk of tax audit for each legal person registered in Estonia. Taxpayers will be able to see themselves and their business partners through the eyes of the ETCB as well as to compare themselves with their peers. (Initially, the taxpayer will see only his own ratings along with the explanations of possible shortcomings in complying with tax law. The taxpayer then will be able to address those shortcomings to improve his ratings.) The taxpayer can share his ratings with other users of the service so that they can assess whether his tax affairs are in order, helping to incentivise compliant behaviour.

Box 1.13. Cooperative compliance approaches (continued)

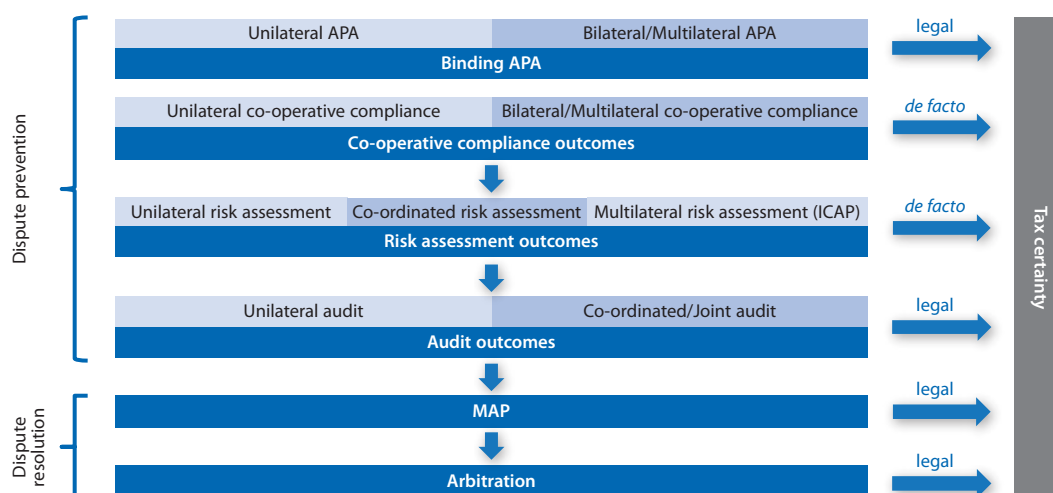
In *Hungary*, the NTCA has introduced a public taxpayer compliance classification system in order to foster a partner relationship with compliant taxpayers and to force risky taxpayers to comply with regulations. The NTCA rates taxpayers in the business registry after each quarter (more than 550 000 taxpayers), taking relevant data on the last day of the quarter and comparing it to conditions stipulated by the legal regulations. As a result of the rating, reliable taxpayers are entitled by law to benefits, which serves as recognition of their compliant behaviour. Risky taxpayers, however, face stricter regulations. Some business taxpayers who received reliable ratings have been using it as evidence of their social responsibility in public communications.

Sources: Australia – Australian Taxation Office (2019), Austria – Federal Ministry of Finance (2019), China – State Taxation Administration (2019), Estonia – Estonian Tax and Customs Board (2019) and Hungary – OECD (2017), *Shining Light on the Shadow Economy: Opportunities and Threats*, www.oecd.org/tax/forum-on-tax-administration/publications-and-products/shining-light-on-the-shadow-economy-opportunities-and-threats.htm.

Co-operative compliance also provides the underpinning for the G20/OECD tax certainty agenda aimed at improving dispute prevention and resolution, helping to reduce burdens on companies and tax administrations. A number of initiatives are currently underway in this space including:

- The International Compliance Assurance Programme (ICAP): ICAP is a novel approach where taxpayers and tax administrations work co-operatively and multilaterally in close to real time to undertake risk assessment and assurance of key international tax risks. Building on the lessons and experiences with the smaller initial pilot of ICAP launched in 2018, ICAP 2.0 was launched in March 2019. 17 FTA member tax administrations have agreed to participate in ICAP 2.0, up from the 8 tax administrations already involved in the first pilot.
- Work on improving the consistency and co-ordination of tax risk assessments. As a result of the base erosion and profit shifting (BEPS) project, tax administrations have access to unprecedented information on multinational enterprises (MNEs), much of which is made available to different tax administrations at the same time and in a common format. Building on this, work is underway to improve consistency in tax administrations' understanding of tax risk, the key indicators that risk may be present and the information needed to conduct an effective risk assessment. This will promote certainty for MNEs and tax administrations by improving the efficiency and consistency of risk assessments and, in particular, by supporting the development of ICAP from a pilot to a mature and enduring programme.
- More closely integrating international audit activity. The OECD report on *Joint Audit 2019 – Enhancing Tax Co-operation and Improving Tax Certainty* (OECD, 2019^[7]) set out a number of recommendations for improving the use of this multilateral tool for the benefit of both taxpayers and tax administrations alike.
- Exploring other aspects of the tax certainty agenda, including looking at possible improvements that could be made to the Advance Pricing Agreement (APA) process and exploring the potential for the wider use of multilateral APAs and possible multilateral Mutual Agreement Procedures.

Figure 1.10. Tax certainty: Routes to certainty for international tax risks



1.3.4. Automated risk management

A growing number of tax administrations report the use of “automated machine actions” using rules-based approaches to treat defined risks (e.g. automatically denying a claim, issuing a letter or matching a transaction).

These “robotic” activities many of which are occurring in near real-time, are replacing some audit actions or steps previously performed by people. They are allowing administrations to monitor and review populations of data, and in many instances to undertake basic verification or matching action more effectively and efficiently than traditional “desk based verification review”.

These new interventions are also changing the way many administrations think about coverage, adjustment rates and yield. For those using automated interventions informed by advanced analytics, adjustment ratios across the population fall as coverage rates reach close to 100% of particular returns, transactions or risk. However, where it replaces activity previously undertaken manually there is a substantial reduction in cost per audit.

Box 1.14. Automatic checks and actions

In *Ireland*, Revenue has used robotics in the processing of tax return exceptions. The 2017 Irish income tax return requires additional spouse or partner information on cases claiming married credit, which is used to update Revenue’s customer records for those “linked” taxpayers. That additional processing gave rise to a number of exceptions which required a manual review or update by a Revenue tax official. A proof of concept assessed the capacity for, and benefit from, robotic processing of up to 2% of those flagged exceptions. The work processed robotically included creating and validating taxpayer records and relationships based on the data reported on the tax return, and applying the correct basis of assessment for those taxpayers.

Box 1.14. Automatic checks and actions *(continued)*

In *the Netherlands*, the NTCA created computer assisted document processing services based on Natural Language Processing technology in order to better understand, correctly route and promptly respond to potentially hundreds of thousands of unstructured messages sent to the NTCA every year. This results in faster and more accurate response to more straightforward questions and a better understanding and increased human attention to more complex cases. For example, it enables the NTCA to route the majority of complaints to the correct department automatically, and assists administration officials by highlighting the key parts of a message and proposes answers. The document processing platform is able to both extract information and meaning and apply category labels to texts and documents. For a single case where 12 000 complaint letters that would have otherwise taken hundreds of man days to read and respond to, 80% of the letters were directly answered through the use of Natural Language Processing algorithms, escalating the remaining 20% for human handling. Tailoring and verifying the system's algorithms for this use case cost 2 data scientists 2 weeks. The NTCA views Natural Language Processing as an important improvement to support and automate the handling of a part of the unstructured communications it receives.

In *Norway*, the NTA is developing a new, user-friendly self-assessment tax return for individual taxpayers and businesses together with a new case processing system. The new case processing system mirrors the content of the self-assessment, and automates checks. Some of these checks are executed in the actual self-assessment process through instructions and real-time feedback relevant to the individual taxpayer. The new self-assessment tax return for businesses aims to simplify reporting requirements by aligning them to their business development processes, and re-using data. In order to achieve this, the NTA is working on changing the necessary regulations. The new self-assessment tax return will be launched for all taxpayers in 2021.

In *Spain*, AEAT has used the Automated Attachment Procedure since 2015. This has recently been enhanced in order to focus resources on the most complex files. Taking into account the amount of debt and the complexity of the file, the system classifies debtors into five categories. This segmentation determines the collection approach of the debtors' pending debts. The Automated Attachment Procedure has improved resource efficiency and helped in dealing with higher complexity files. The degree of automated actions depends on whether the unpaid amount after the voluntary payment period is under or over EUR 50 000, with greater management of the individual debtor above that threshold.

In the *Russian Federation (hereafter "Russia")*, the Federal Tax Service (FTS) is continuing to develop an integrated risk management (IRM) system to engage with large business taxpayers in order to flag risks early so that they can be addressed upfront, minimising the risk of future disputes. The IRM system allows the FTS to directly interrogate the accounting information of participating large businesses. It uses a large number of multifactorial risk models built and applied to large data sets through the use of complex algorithms. The embedded data mining functions are able to quickly assess the taxpayer's current operations and predict the probability of future non-compliance. Where such risks are detected, the system automatically generates warnings visible to the taxpayer as well as the tax administration, allowing further enquiries and/or preventative action to be taken at early stages.

Sources: Ireland – Office of the Revenue Commissioner (2019), the Netherlands – Netherlands Tax and Customs Administration (2019), Norway – Norwegian Tax Administration (2019), Spain – OECD (2019), *Successful Tax Debt Management: Measuring Maturity and Supporting Change*, www.oecd.org/tax/forum-on-tax-administration/publications-and-products/successful-tax-debt-management-measuring-maturity-and-supporting-change.htm and Russia – Federal Tax Service (2019).

1.4. Compliance-by-design

1.4.1. Personal income tax

Compliance-by-design first originated as a mechanism for providing efficient and effective taxation for very large populations of taxpayers working as employees, minimising burdens on individuals and the tax administration and reducing the scope for error. In place of self-reporting, a system was introduced of employer withholding and income reporting, supported by information provided by the tax administration. Over time this system has become more sophisticated and increasingly dynamic with calculations, reporting and adjustments embedded into payroll systems and with direct connections between the employer and the tax administration.

As a result of the increased availability of data, the use of compliance by design approaches are spreading to more complex situations, in which personal income taxpayers have multiple sources of income and revenue. This is also allowing the pre-filling of tax returns for personal income tax payers in an increasing number of jurisdictions (see Chapter 3).

While there remains an element of voluntary compliance for income not picked up by the tax administration systems, this can be expected to shrink over time as more data sources become available or with the use of innovative compliance management techniques.

Of course there remains scope for failures in compliance-by-design approaches by misapplication of rules or errors by employers as well as mistakes by employees where the system relies on them providing information needed by the system. Compliance by design still, therefore, relies on a checking of the systems and, where appropriate, of additional information provided by the taxpayer, although this is likely to become increasingly automated with greater cross-checking of data.

Box 1.15. Compliance-by-design for employees

In *Australia*, the ATO has introduced Single Touch Payroll, a change in how employers report salary and wage information including Pay-As-You-Go withholding and superannuation payments to the ATO. From 1 July 2018, employers with 20 or more employees were required to commence reporting to the ATO directly from their payroll software solution at the time they pay their employees. Single Touch Payroll streamlines the reporting process for employers by leveraging their natural business processes and provides the ATO with greater real-time visibility of an employer's tax and superannuation payment obligations. A great deal of effort went into working with the payroll software developers and bookkeepers to ensure that the requirements fitted with the process of payroll including how corrections are made. Improved visibility through display of the data to employees will assist the ATO in identifying unpaid obligations earlier and the data will guide and inform future compliance and engagement activities. The rollout has been a progressive one and has seen good uptake and positive community sentiment. Encouragingly, a number of small employers (with 19 or fewer employees) who are not yet mandated to report have become early adopters of Single Touch Payroll. Subject to legislation being passed, Single Touch Payroll will be expanded from 1 July 2019 to include employers with 19 or fewer employees.

Box 1.15. Compliance-by-design for employees (continued)

In **France**, withholding at source for income tax was implemented on 1 January 2019, thus bringing its income tax collection system into line with most other countries. For French taxpayers, this change in income tax payment method means that they pay income tax when they receive income. Employers withhold income tax on wages on a monthly basis and pay it directly to the tax authorities. For taxpayers who receive income directly (including rental income, maintenance payments or child support, or self-employed income), tax is paid in monthly instalments. Taxpayers did not have to do anything themselves to set up withholding at source. The tax authorities automatically sent each tax household's specific income tax rate to employers and other entities in charge of withholding tax, and for taxpayers who receive income directly, the monthly instalments are directly debited from taxpayers' bank accounts.

In **Ireland**, Revenue's Pay-As-You-Earn (PAYE) modernisation project represents the most significant reform of the administration of the Income Tax PAYE system in over 50 years. Its objective is that employers, employees and Revenue will all have access to the most accurate and up-to-date information available relating to salaries, income tax, Pay-related Social Insurance (PRSI) and Universal Social Charge deductions. This will ensure that the right amount is collected at the right time from employees, and that employers pay their correct liabilities when required. The new reporting requirements also minimise the scope for error and omission by employers by integrating seamlessly in their existing payroll process. For Revenue, the availability of additional real-time information will inform its risk profiling, fraud identification and non-compliance activities, including assisting in the earlier identification of insolvent businesses.

In the **United Kingdom**, HMRC enhanced its capacity to collect debt through adjustments to the PAYE system. Where tax due on different sources of income is not paid or there are payment difficulties, HMRC is able to change an individual's PAYE code going forward. This means that repayments are automatically deducted from earnings for the future year using a sliding scale of coding limits for individuals with annual earnings above GBP 30 000. Debtors also have the option to pay their debt in full to avoid the change of the PAYE code. Furthermore, the recently introduced "Dynamic Coding-Out" will use new technology to recover additional debts and modernise the existing coding-out process. This will allow in year changes to the PAYE code allowing overdue debts to begin to be collected during the current fiscal year, rather than waiting until the next one.

Sources: Australia – Australian Taxation Office (2019), France – General Directorate of Public Finances (2019), Ireland – Office of the Revenue Commissioners (2019) and the United Kingdom – OECD (2019), *Successful Tax Debt Management: Measuring Maturity and Supporting Change*, www.oecd.org/tax/forum-on-tax-administration/publications-and-products/successful-tax-debt-management-measuring-maturity-and-supporting-change.htm.

1.4.2. Upstreaming of compliance management

Compliance-by-design approaches are inherently more difficult for business taxpayers given the existence of multiple sources of income and the complexities of calculating taxable profits. The OECD publication *Tax Compliance by Design* (OECD, 2014^[8]) encouraged administrations to adopt a systems approach to improve SME tax compliance, either through centralised data management by the tax administration or through reliance on a secured flow of relevant information from the taxpayer's own systems. In either case, what matters is that the data is reliable and, as far as possible, complete.

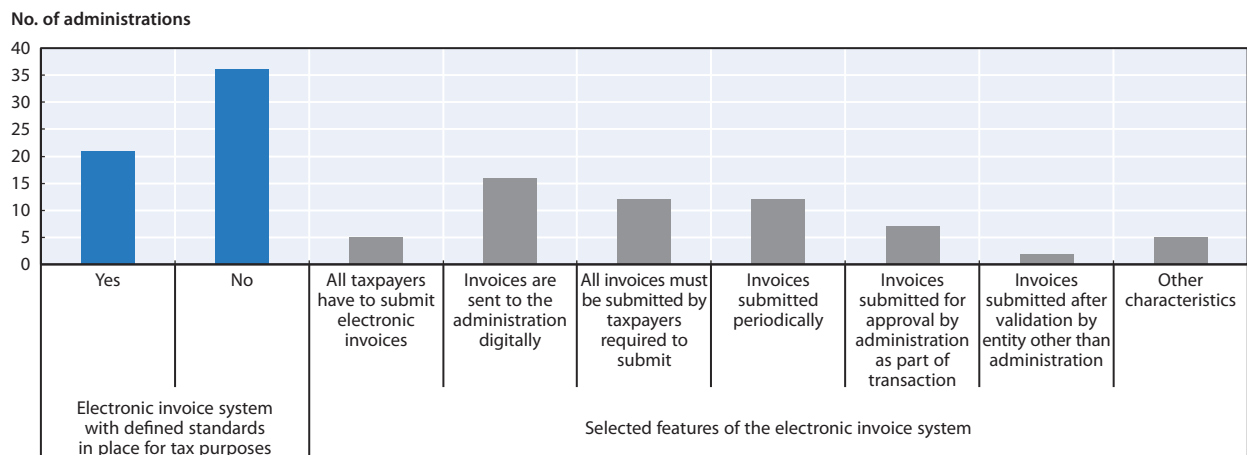
Chapter 12 describes a pilot project by the Dutch Tax Administration (NTCA) to introduce an automatic tax return for freelancers (self-employed persons without employees) by working closely with software developers. The aim is that the business accounts of freelancers will align with tax reporting requirements and there is an uninterrupted chain between the transactions of the freelancer and submitting the tax return details to the NTCA, effectively designing in seamless compliance.

In New Zealand, from April 2018 small businesses that have turnover of less than NZD 5 million a year can work out their provisional tax using the accounting income method (AIM). This method provides a pay-as-you-go option for small businesses for managing provisional tax. AIM means small businesses can: pay smaller amounts of provisional tax more often; get refunds of overpaid provisional tax during the year; avoid paying interest or penalties provided they pay what their software tells them to, on time; have their provisional tax calculations done for them by their software; and have their information sent to Inland Revenue by their software with no extra step required. By 30 June 2018 more than 1 100 small businesses were using AIM. Initial analysis showed that the main adopters are from the building, plumbing, electrical, automotive servicing, general practitioner, café and restaurant sectors. Some accounting firms have also chosen to use AIM this year and the use of AIM is expected to grow steadily over time.

A number of tax administrations are now adopting approaches for business that increasingly incorporate elements of compliance-by-design combined with the use of data analytics to minimise risks, effectively upstreaming compliance management and interventions. Two examples of this are e-invoicing systems and online electronic cash registers.

These systems, which are combined with upfront measures to minimise misuse and fraud, produce vast amounts of data which allows tax administrations to undertake detailed and possibly close to real-time analysis of risks. In both the case of e-invoicing systems and electronic cash registers, this can be reinforced by counterparties to transactions, whether businesses or consumers, also being part of the compliance chain. The combination of these elements can get close to a compliance-by-design outcome.

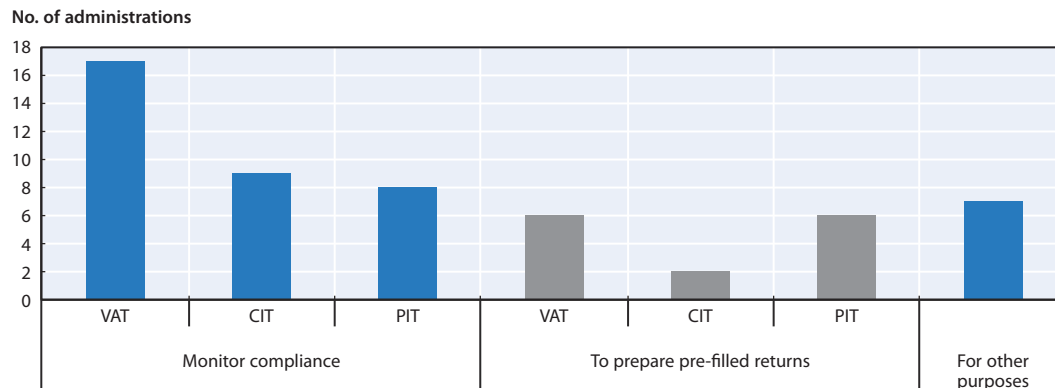
Figure 1.11. **Electronic invoice systems: Existence and selected features, 2017**



StatLink <http://dx.doi.org/10.1787/888933983756>

Source: Table A.147 Electronic invoicing – Existence of a system and selected features.

Figure 1.12. Electronic invoice systems: Usage, 2017



StatLink <http://dx.doi.org/10.1787/888933983775>

Source: Table A.149 Electronic invoicing – Usage.

More detail on the use and impact of electronic and online cash registers can be found in the OECD publication *Implementing Online Cash Registers: Benefits, Consideration and Guidance* (OECD, 2019_[9]).

Box 1.16. Uninterrupted chains

In **Chile**, the SII has implemented the prefilling of the monthly VAT tax returns, which are available to all taxpayers obligated to declare VAT to facilitate and ensure tax compliance. The SII receives all the information from issued e-invoices, automatically creating a Purchase and Sales Registry (PSR) which must be validated (or amended if it is necessary) by taxpayers. Pre-filled VAT tax returns are generated based on the information contained in the PSR as well as other sources such as information from receipts issued and other incomes and provisional monthly payments. Taxpayers may accept the prefilled tax return by paying the calculated tax. Some benefits are: a lower compliance cost for taxpayers due to the elimination or simplification of certain obligations such as the generation of the PSRs (and the process of sending them to the SII) and the monthly manual filing of the VAT tax returns; a reduction of mistakes in tax returns; an improvement in monitoring and controlling the VAT tax compliance. Currently more than 90% of taxpayers who declare VAT tax credits or debits are using the prefilled tax returns, representing 90% of the total amount declared.

In **Italy**, following the introduction of e-invoicing requirements in the public subcontracting sector and the supply of fuel, a general business-to-business (B2B) and business-to-consumer (B2C) e-invoicing obligation became operational from 1 January 2019 with reference to all transactions performed between persons established or resident in Italy. The electronic invoice must be transmitted in a specified format via the Interchange System (SDI) managed by the Revenue Agency. In 2019, it is estimated that 1.5 billion of electronic invoices will transit through SDI.

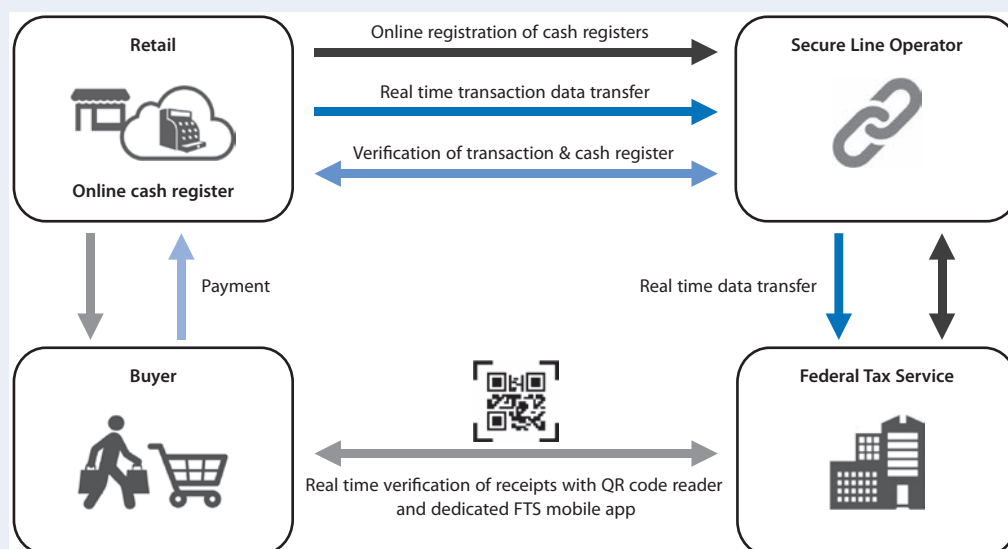
In **Peru**, the expansion of e-invoicing will allow the traceability of 70% of income declared by 2018 and close to 100% in 2020. The system externalises the fiscal validation of invoices, with fourteen validators already authorised by the Tax Administration. The market for electronic service providers – more than 100 providers authorised so far – has also gained momentum as they provide added-value services such as immediate integration of invoices

Box 1.16. Uninterrupted chains (continued)

with accounting software. The e-invoicing delivers savings and efficiencies for business and large numbers of SMEs are now voluntary users of the system. The dramatic increase in the number of e-invoices motivated the Tax Administration's migration to cloud services started in 2017. The use of big data created by the e-invoicing system has brought about significant improvements in both the use of information for compliance purposes and communication with taxpayers.

In **Russia**, the FTS started the transition to mandatory online cash registers (OCRs) in early 2017 and all retailers were required to use OCRs by July 2018. The physical and IT security requirements for OCRs as well as the details that need to be recorded and transmitted to the tax authority are set out in law. Such registers instantly upload sales data to the FTS data processing centres. The data produced by the OCR system enables new types of audit activities that give the FTS the authority to automatically monitor transactions, analyse data, monitor the use of cash registers and inspect them remotely. As required by legislation, each receipt generated by online cash registers has a QR code that enables customers to verify the transaction by comparing it to the information maintained by the tax administration. There was a considerable improvement in VAT compliance rates by retailers after the introduction of the OCR system. In 2017 the retail sector demonstrated a 38% increase in VAT collection compared to 2016.

Figure 1.13. System architecture of the Russian OCR system



Sources: Chile – Servicio de Impuestos Internos (2019), Italy – Agenzia delle Entrate (2019), Peru – Superintendencia Nacional de Administración Tributaria (2019) and Russia – OECD (2019), *Implementing Online Cash Registers: Benefits, Considerations and Guidance*, www.oecd.org/tax/forum-on-tax-administration/publications-and-products/implementing-online-cash-registers-benefits-considerations-and-guidance.htm.

Notes

1. This is something of a misnomer as tax is not a voluntary obligation. The term “voluntary” is used in the sense that a taxpayer exercises a choice as whether to comply with those obligations in an environment where tax administration will not have the means to audit all taxable events.
2. More information on taxpayer education initiatives can be found in the 2015 report Building Tax Culture, Compliance and Citizenship – A Global Source Book on Taxpayer Education (OECD/FIIAPP, 2015_[10]).

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Chapter 2

Responsibilities and collection

This chapter looks at the importance of tax administrations to governments and economies in discharging their primary role of collecting taxes as well as other responsibilities given to them. In this respect, it provides information on the aggregate net tax revenues collected as well as other key figures related to activities of the administrations covered in this publication.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

2.1. Introduction

The primary purpose of a tax administration is the collection of tax revenue on behalf of citizens to fund the work of the government. Over time, many tax administrations have also been tasked with other responsibilities. Confidence in the proven ability of tax administrations to deliver complex administrative processes on a large scale undoubtedly plays a significant part in such decisions. This chapter provides an overview of the net tax revenues collected as well as some other key figures related to activities of the administrations and looks at the wider role tax administrations are playing.

2.2. Responsibilities of tax administrations

With few exceptions, jurisdictions have unified the collection of direct and (most) indirect taxes within a single body for tax administration. As also found in previous editions of the Tax Administration Series (TAS), governments have given tax administrations other areas of responsibility (including shared responsibility in some areas) in addition to the traditional tax roles.

Table 2.1. Tax types collected by the tax administration, 2017

No. of jurisdictions that collect the following types of taxes								
Personal income tax	Corporate income tax	Value added tax (domestic)	Motor vehicle taxes	Real property taxes	Wealth taxes	Estate, inheritance, gift and other taxes	Other taxes on good and services	Excises
58	58	54	30	32	16	31	36	37

Source: Table A.1 Revenue types collected by the tax administration.

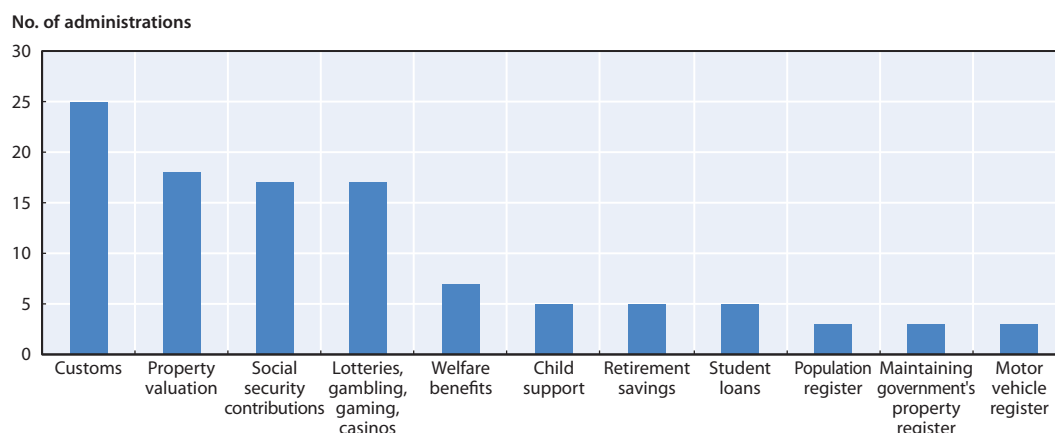
While some of these additional roles are relatively closely aligned to the core work of tax administration, some administrations report that they are being tasked with managing wider programmes and activity. The most common reasons advanced for being allocated new roles include: the synergies with existing administrative processes, particularly when introducing new policies or re-designing services from the customer's perspective; access to tax data, powers or core capabilities of the tax administration; and economies of scale, particularly in delivery.

Figure 2.1 illustrates the most common roles reported by administrations which are:

- customs administration
- administration of property valuation functions for other parts of government that, for some jurisdictions, is also linked to the administration of real property taxes
- administration of social security contributions
- collection of revenues from lotteries, gambling, gaming and casinos
- payment of benefits under various social or welfare programmes, some of which are integrated with elements of the tax system.

Some of these roles entail use of the tax legislation framework of the jurisdiction, as well as the administrative process of the tax administration. Typically these may be to provide economic benefits to taxpayers (e.g. welfare-type benefits) or to collect loans or debts owing to government (e.g. student loans or child support). In other situations, the role/function is less directly related to the tax system, for example oversight of certain gambling activities or population registries.

Figure 2.1. Tax administrations wider roles, 2017



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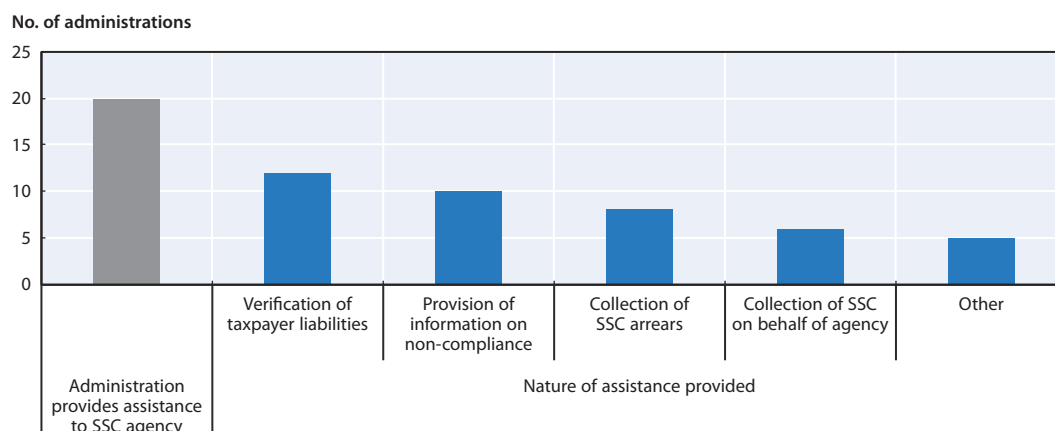
Sources: Tables A.8 Administration of customs and social security contributions and A.10 Other functions administered by the tax administration.

Social security contribution (SSC) regimes have been established in the vast majority of jurisdictions as a complementary source of government revenue to fund specific government services (e.g. health, unemployment and pensions). SSCs are the largest single source of government tax revenue in many OECD jurisdictions, particularly of those in Europe.

The majority of administrations participating in the survey report separate SSC regimes and administer their collection through a separate social security agency (or a number of such agencies), rather than through the main tax revenue body. Notwithstanding the dominance of the separate agency approach to SSCs and tax collection, there has been a marked trend over the last decades towards integration. In Russia, the Federal Tax Service began to administer SSC from 2017, and a number of other jurisdictions (Indonesia, the Slovak Republic and Turkey) report plans to integrate the collection of SSCs (see Table A.8).

In addition to those administrations that already administer SSC, in another 20 of the jurisdictions surveyed, the tax administration is involved to some extent in the collection of SSC (see Figure 2.2, which also shows the nature of the assistance provided to SSC agencies).

Figure 2.2. Nature of assistance provided to SSC agencies, 2017



StatLink <http://dx.doi.org/10.1787/888933983813>

Sources: Tables A.8 Administration of customs and social security contributions and Table A.9 Nature of assistance provided to SSC agencies.

An expansion of responsibilities, while it can bring useful economies of scale and scope, can also potentially increase risks to the core task of raising the tax revenue needed to fund public services and public goods, and requires strong governance, risk management and appropriate resourcing.

Box 2.1. Assisting citizens in receiving benefits

In *Austria*, Automatic Family Allowances without Application is a solution for parents whereby family allowances for new-born children are paid out automatically without any need to visit the tax office nor, in many cases, any need to present documents or fill in forms. The service will save Austrian citizens 39 000 hours annually, benefitting around 80 000 families as well as reduce costs for the Austrian public administration. The Austrian tax offices start an examination – without any input from the parents – based on the data available and contact the parents for any further information needed and to convey the result of the investigation process.

In *Canada*, the Canada Revenue Agency (CRA) ran an experiment in 2017 to test the effect of placing a behaviourally-informed informational insert in the paper tax return at increasing take up of the Working Income Tax Benefit (WITB) by those not using the electronic form. Among the group that received the insert, the number of paper-filed WITB claims increased by 35% compared to the control group. Based on these results, the initiative was scaled-up across Canada resulting in an increase in paper-filed benefit claims. The CRA also uses business intelligence and data analytics to identify and send letters to those who typically do not file income tax returns and may be eligible for benefits. As a result of the letter mail-outs in 2017, a total of 37 934 returns were filed resulting in over CAD 6.98 million in tax refund payments and CAD 32.4 million in credits or benefits paid. The CRA has also launched a Call Me First initiative, in which the CRA proactively calls individuals at risk of having benefits cut off because the CRA is lacking relevant information. While still in its early stages, the CRA has so far reached out to approximately 8 000 benefit recipients. Feedback indicates that benefit recipients appreciate receiving personalised assistance and being provided with additional time to respond, if needed.

In *New Zealand*, Inland Revenue works with other New Zealand government agencies to improve customer interactions with government. Services are designed around customers and Inland Revenue works with the public and private sector to improve the delivery of services around customers' life events. Together with the Department of Internal Affairs, the first life-event-based service, SmartStart was designed around the birth of a baby and was released in December 2016. SmartStart is a digital service which provides step-by-step information and support to help people access the right services for them and their baby. The tool makes it easier for new and expectant parents to get the services and support they need to set up their child for the future. At 30 June 2018, around 97% of parents had used this website to register their baby.

Sources: Austria – Federal Ministry of Finance (2019), Canada – Canada Revenue Agency (2019) and New Zealand – Inland Revenue Department (2019).

2.3. Tax collections

This section looks at the net revenue collection of tax administrations as well as a number of other key figures related to their activities.

2.3.1. Net collections by tax administrations averages 20% of jurisdiction GDP

Through its Global Revenue Statistics Database (see www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm) the OECD generally seeks to publish internationally comparable data on the tax revenues of its members as well as a number of other jurisdictions for all levels of government. As the information contained in the Global Revenue Statistics Database reports data at a jurisdiction and not an administration level, tax administrations were asked in the International Survey on Revenue Administration (ISORA) to provide a range of information on their revenue collection activity. This information aptly demonstrates the importance of tax administrations to the economies of their jurisdictions.

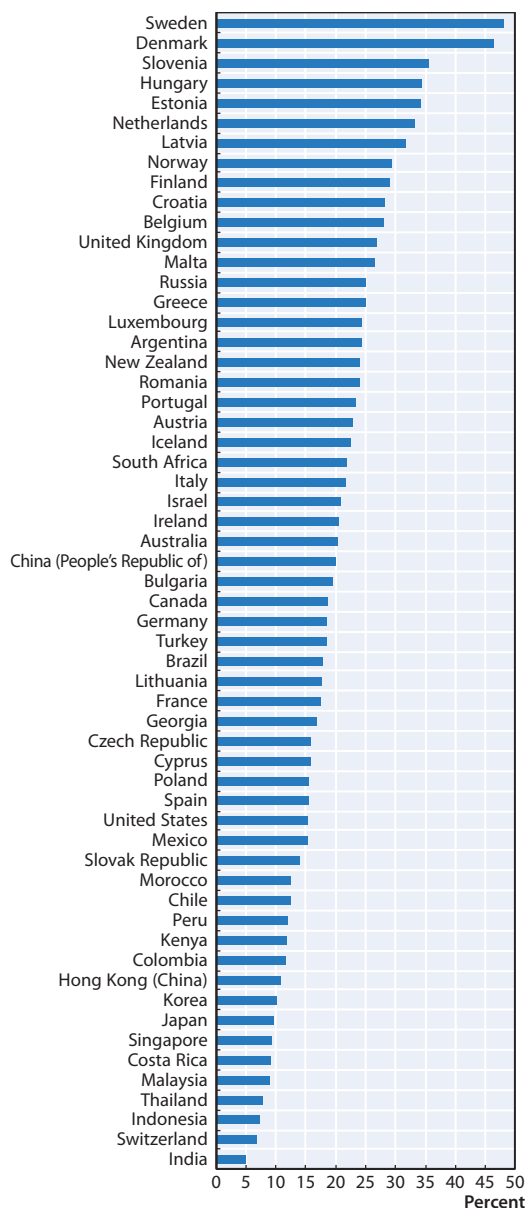
Net revenue collected by tax administrations participating in this report as a percentage of gross domestic product (GDP) in 2017 ranges from less than 10% to reach more than 30% in the case of Denmark, Estonia, Hungary, Latvia, the Netherlands, Slovenia and Sweden. Average net revenue collected by survey respondent administrations is approximately 20% of GDP (see Figure 2.3).

2.3.2. Net collections by tax administrations averages 55% total jurisdiction revenue

Thirty-one jurisdictions report tax administration net revenue collections exceeding more than 50% of total government revenue in 2016, making tax administrations the principle government revenue collection agency in more than half of survey respondents where data was available (see Figure 2.4).

Personal income tax accounts for 28% of net revenue collections and is the major tax type collected by around 40% of the tax administrations responding to this survey. Value added tax (23%), corporate income tax (20%) and social security contributions (10%) comprise the other major revenue types as reflected in Figure 2.5. In many jurisdictions social security contributions are not collected by tax administrations and are therefore underrepresented when looking at average net revenue collections for all jurisdictions covered in this publication. Where collected, they are often the predominant source of tax revenue (see Table D.2).

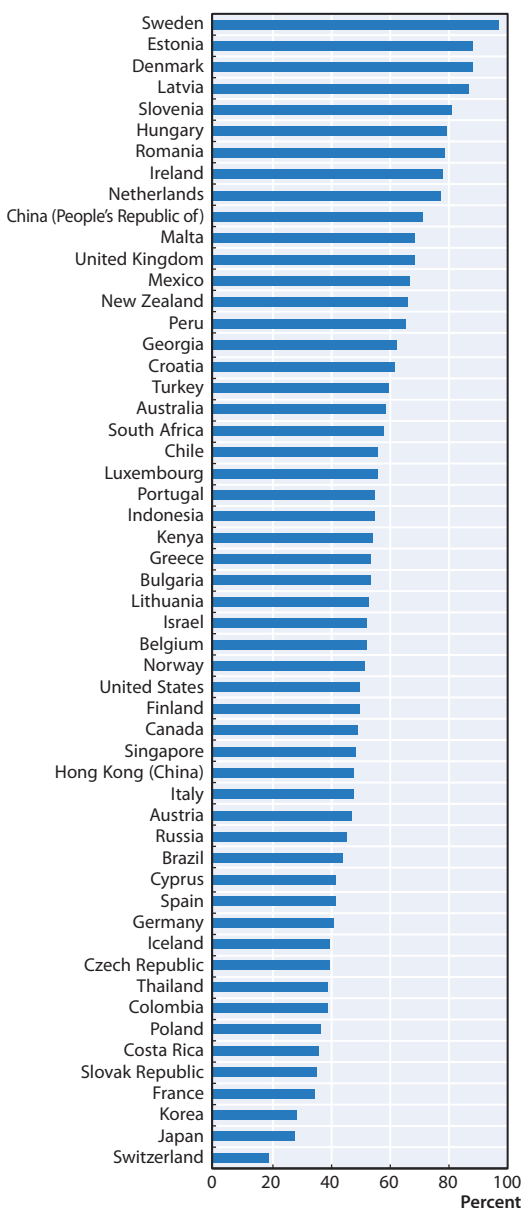
Figure 2.3. Net revenue collected as a percent of gross domestic product, 2017



StatLink  <http://dx.doi.org/10.1787/888933983832>

Source: Table D.1 Revenue related ratios.

Figure 2.4. Net revenue collected as a percent of total government revenue, 2016



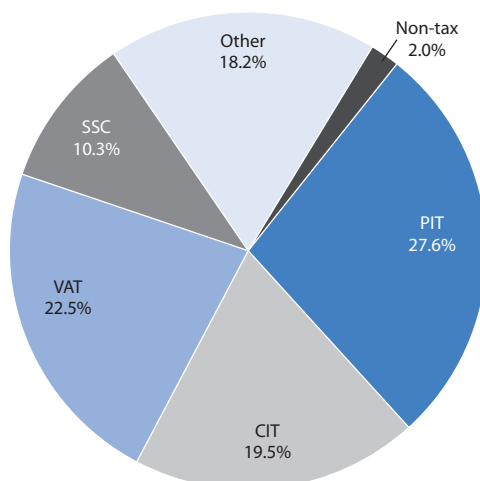
StatLink  <http://dx.doi.org/10.1787/888933983851>

Source: Table D.1 Revenue related ratios.

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Figure 2.5. Average net revenue collections (in percent)
by major revenue type, 2017



StatLink  <http://dx.doi.org/10.1787/888933983870>

Sources: Tables D.1 Revenue related ratios and D.2 Tax structure and SSC proportions.

2.3.3. Withholding at source

Withholding taxes are taxes paid directly to the government, usually by a principal who pays the net income to the recipient (for example withholding by an employer on salary paid to an employee), or by an intermediary between the payer and customer. The most common withholding tax in operation globally is income tax on employment income. Other examples include withholding taxes on interest, dividends or royalties (see Table 2.2). Depending on the underlying tax regime and nature of the payments, withholding can vary from a simple system, at a universal set rate, to a more complex system that is responsive to the customer's wider circumstances.

Those administrations that were able to provide data report that on average 70% of the total personal income tax collected was withheld at source (see Table A.75).

Table 2.2. Withholding regimes for income of residents, 2017

No. of jurisdictions where the following types of personal income are normally subject to withholding where paid to resident taxpayers							
Wage and salary	Dividends	Interest	Rents	Specified business income	Royalties, patents	Sales/purchases of shares	Sales/purchases of real estate
53	47	47	21	20	36	24	14

Source: Table A.73 Withholding regimes for income of residents.

Chapter 3

Performance of tax administration

This chapter summarises operational performance data for key areas of tax administration. In so doing, it examines each of the major functions of the tax system. It shows that the digital transformation of tax administrations and their interactions with taxpayers is well underway. The data shows that overall performance by tax administrations is strong but that there is also room for improvement.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

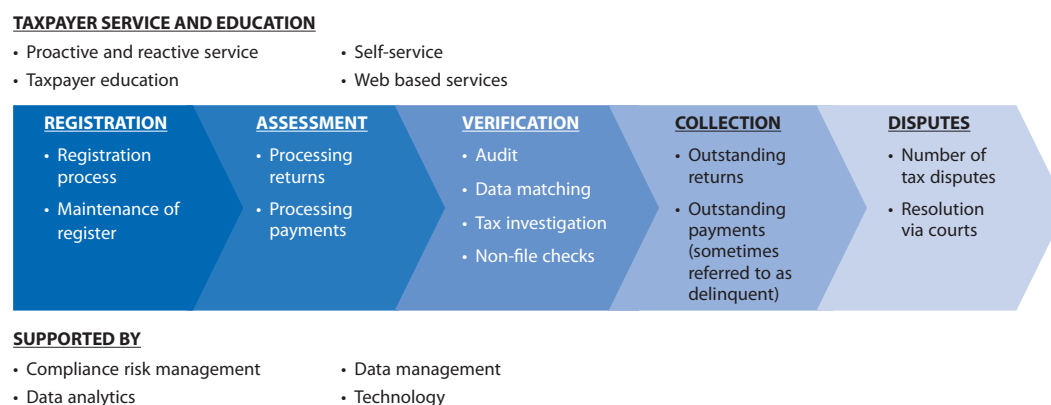
3.1. Introduction

This chapter provides an overview of reported operational data of the 58 tax administrations participating in this publication. It examines the major functions of the tax system as set out in Figure 3.1, and provides performance information and commentary on:

- the integrated registration process for taxpayers
- the processing (assessment) of tax returns and tax payments
- the support and services to help taxpayers fulfil their obligations
- the verification interventions that confirm the accuracy of reported information
- the interventions to collect overdue payments and returns
- the access to tax disputes processes.

For each of those areas, the chapter provides a number of examples of innovation and new practices that tax administrations may wish to consider when looking for ideas to improve the administration of the tax system.

Figure 3.1. Overview of core tax administration functions



Source: OECD (2017), Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies https://doi.org/10.1787/tax_admin-2017-en.

3.2. Registration, identification and authentication

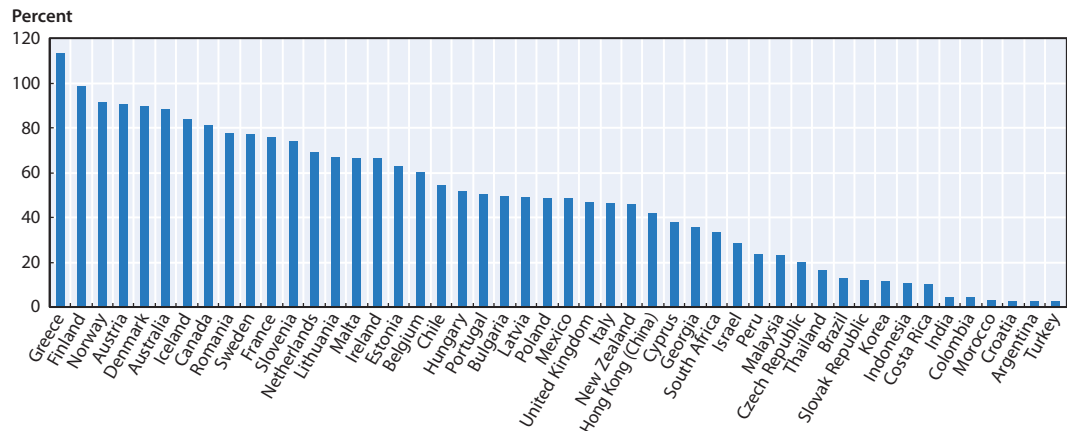
A comprehensive system of registration and taxpayer identification is critical for the effective operation of the tax system. It is the basis for supporting self-assessment, value-added and withholding regimes, as well as third party reporting and matching. While the majority of administrations are solely responsible for the system of registration within their jurisdictions, many report that registration processes can be initiated outside of the tax administration through other government services (see Table A.64). The active management of “tax registers” remains a priority area for tax administrations, with three-quarters reporting formal programmes in place to improve the quality of the tax register in the current year (see Table A.67).

This section briefly comments on four issues of significance in tax registration: levels of registration, joined-up processes across government, identity management, and identity across borders.

3.2.1. Levels of registration

Figure 3.2 provides information on the rate of registered personal taxpayers as a percentage of the total citizen population. The rate would seem highest among those jurisdictions that report using the tax system for purposes other than just tax collection, this includes the management of social programmes. A percentage above 100% may indicate the inclusion of taxpayers living abroad which are not counted in the numbers recorded for the citizen population or other issues with the register.

Figure 3.2. **Registration of active personal income taxpayers as percentage of citizen population, 2017**



StatLink  <http://dx.doi.org/10.1787/888933983889>

Notes: Data for Korea and Turkey relates to the year 2016. For Belgium, the percentage shown is lower than the actual figure as couples (e.g. married, civil union) are considered as one personal income taxpayer. For France, the number of active personal income taxpayers is estimated. Dependents such as working students or elderly who earn income are not taken into account. For India, the number of active taxpayers is based on the total number of returns filed by individuals (including Hindu undivided families).

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: Table D.11 Registration of personal income taxpayers.

3.2.2. Joined-up processes across government

Tax administrations still handle most of the registration for businesses, including value added tax (VAT), and for individuals. In looking at how taxpayers can register, almost all administrations reported they provide more than one channel for taxpayers to use. 80% now report that it is possible for individuals to register on-line, or through a mobile app. Compared to the previous survey this is a 10-percentage point increase. In addition, on-line and mobile apps were the main registration channel in half of the administrations that were able to report on usage of registration channels. Both points illustrate well the continuous impact of digitalisation in tax administration processes (see Table A.71).

A large number of administrations also report that other agencies – mainly other government agencies – may also be responsible for registration activities (see Table A.64). More than 90% of survey respondents indicated that it is possible for taxpayers to register for multiple tax types at the same time (see Table A.67). Only a small number of administrations indicated that taxpayers have to activate separately the registration after registering for tax (see Table A.72).

Box 3.1. Registration and identification

In *Austria*, since 31 July 2017 individual companies can be registered and established online via the “Business Service Portal.” About 40 000 individual companies which are founded on average every year in Austria will benefit from this new service. The only requirement is that the taxpayer has a mobile phone signature which can be activated via FinanzOnline (the online portal providing access to the Austrian tax administration) or one of the more than 500 registration offices throughout Austria. Companies can also use the portal to access many other services, such as (i) FinanzOnline, (ii) the social insurance portal, and (iii) the e-invoice web form which is a data transfer method for the submission of structured electronic invoices to the Austrian Public Sector as well to entities of public interest. On January 2018, the offer was expanded to single-person limited liability companies.

In *Georgia*, the Georgian Revenue Service (GRS) has initiated work to improve the accuracy of the tax register. As a starting point special criteria were set to distinguish active and non-active taxpayers as well as to ensure correct categorisation of business taxpayers by NACE code. (The NACE code is the European industry standard classification code.) This work supplements the ongoing project concerning the creation of a new “data warehouse” to help ensure accuracy by linking all of the data existing within GRS or received from third parties.

In *New Zealand*, the digital registration for new immigrants was launched in February 2017 as part of Inland Revenue Departments (IRD) business transformation. This service makes it easier and quicker for immigrants and people coming to work in New Zealand to digitally apply for IRD numbers through Immigration New Zealand when they enter New Zealand. By 30 June 2018, over 59 000 people had registered for IRD numbers using this service.

In *Norway*, improving identity management to meet the challenges of increased migration and identity crime rates is an integral part of the Norwegian Tax Administration’s modernisation of the Population Registry. The project’s first milestone was fully automated digital requisitioning of D numbers. These are temporary identification numbers for foreign nationals, such as asylum seekers and job seekers with short-term work plans. As of 2018, D number requests are sent electronically to the Population Registry when a new foreign national is registered by any of the main issuers of D numbers. Digital requisitioning of D numbers strengthens and speeds up identity management. The process also improves collaboration between the Population Registry and the requisitioning agency because the same information is registered simultaneously in both organisations’ IT systems. This makes it harder to acquire more than one D number illegally.

Sources: Austria – Federal Ministry of Finance (2019), Georgia – Georgian Revenue Service (2019), New Zealand – Inland Revenue Department (2019) and Norway – Norwegian Tax Administration (2019).

3.2.3. Identity management

All tax administrations, whether required to by law or as a matter of sound business practice, put considerable effort into ensuring the security of taxpayer information. In addition to internal processes to prevent unlawful attempts to obtain information and to ensure taxpayers’ rights are protected, all administrations have processes to ensure the

person they are dealing with is in fact the taxpayer. Increasingly these approaches, which in many instances have now extended to multi-step authentication, are making use of biometric information, unique to the taxpayer.

Tax administrations face similar challenges to other organisations in dealing with individuals or organisations that may misuse personal information to impersonate taxpayers in order to commit fraud. The on-going and, in many cases, organised nature of this activity is requiring administrations to devote considerable effort to dealing with tax-related identity theft. Details stolen in this way can be used to fraudulently obtain tax or VAT refunds or to access tax credits.

Box 3.2. Security, authentication and identity protection

In **Luxembourg**, the electronic signature method provides everyone with a guarantee of being able to perform their online transactions in complete safety, by authenticating themselves in the most secure possible way in order to avoid identity theft. It guarantees the integrity of the data exchanged and it allows for signing official electronic documents (for example the income tax return) and banking transactions. Identification of the individuals and legal entities is performed by a trusted and supervised third-party, LuxTrust, a Certification Authority operating under the European regulation eIDAS. This regulation, which entered into force in July 2016, harmonises the technical frame and the legal value of the electronic signature across Europe. Various identification methods are available, depending on the level of signature expected (advanced or qualified, as defined in eIDAS). The most popular ones are based on a face-to-face identification, video identification, the “Hague Apostille” (an international certification of documents for legal purposes) or the uploading of scanned ID documents.

In **the Netherlands**, as in other EU countries, the General Data Protection Regulation (GDPR, EU 2016/679) came into force on 25 May 2018. The GDPR contains an obligation for the Netherlands Tax and Customs Administration (NTCA) to notify a personal data breach, in most cases, to the national Data Protection Authority. A process was developed within the NTCA for the notification of personal data breaches. Employees have to report incidents in the processing of personal data that may qualify as a personal data breach to their management as well as to a central notification point in the NTCA. This central point judges if the incident has to be reported as a personal data breach to the Data Protection Authority and if the data subject must be informed. Furthermore, the cause of the personal data breach and actions taken to prevent a breach in the future are investigated. In order to help prevent risks, the NTCA organises awareness training for employees. It also undertakes other preventive actions such as changes in procedures or software applications to enhance information security and provides for a continuous scan of external threats on the IT infrastructure through a security operations centre. Preventing personal data breaches is not only important to meet the obligations of the GDPR, but also for confidence and trust in the NTCA and the willingness of taxpayers to exchange their personal data with the NTCA.

In **Norway**, employers hiring foreign workers can apply for tax deduction cards online on behalf of their employees. During the first year, the employee needs to undergo a qualified ID control at the tax office, where they are issued a Norwegian ID number and electronic ID. Foreign workers who have undergone the necessary ID control in person at the tax office, and who have a Norwegian ID number and an electronic ID, can apply for a tax card online. Users with an electronic ID can communicate with Norwegian public services electronically. They will be notified by email or SMS when they receive information from public services.

Box 3.2. Security, authentication and identity protection *(continued)*

In *Singapore*, CorpPass is a corporate digital identity for businesses and other entities (such as non-profit organisations and associations) to transact with Government agencies online. From 1 September 2019 it is the only login method for corporate transactions with the Government. There are currently more than 140 government digital services, including services offered by the Inland Revenue Authority of Singapore (IRAS). CorpPass allows business owners greater control, with the flexibility to grant employees separate roles to access government digital services. It has been designed to cater to the needs of businesses of different sizes, from one-man-shops to complex entities. Last but not least, it allows companies greater convenience and visibility by providing a single platform to grant and manage the authorisations given to their employees across all government digital services. More details can be found at www.corppass.gov.sg and www.iras.gov.sg/IRASHome/e-Services/Other-Taxes/CorpPass/.

Sources: Luxembourg – Direct Tax Administration (2019), the Netherlands – Netherlands Tax and Customs Administration (2019), Norway – Norwegian Tax Administration (2019) and Singapore – Inland Revenue Authority of Singapore (2019).

3.2.4. Identity across borders

Once the domain of multi-national businesses or those involved in international trade, increasingly small and medium enterprises (SMEs) and individual taxpayers are now earning income sourced outside their country of residence. The proliferation of on-line market places and the sharing economy compounds this issue, as it is now as simple as ever, for example, to rent out secondary homes or sell goods abroad through online platforms.

Tax administrations are facing a raft of issues in supporting and responding to this growth in cross border activity, not the least of which being how they manage taxpayer identity and information flows across borders. The 2017 edition of the tax administration series (OECD, 2017^[1]), highlighted two international measures aimed at helping administrations to address the issues of managing identity and information flows across borders:

- The European Union's Electronic Identification Authentication and Trust Services (eIDAS) approach, which was introduced in 2014 and aims at increasing the confidence taxpayers and tax administrations can have in dealing with information flows and being able to manage identity and registration issues across borders.
- The new global standard on Automatic Exchange of Information (AEOI) – the Common Reporting Standard (CRS) which together with the United States Foreign Account Tax Compliance Act (FATCA) provides for the exchange of non-resident financial account information with the tax authorities in the account holders' country of residence.

In addition, work has begun with the OECD to ensure the effective taxation of those selling goods or services through sharing and gig economy platforms operating in third countries (OECD, 2019^[2]).

Box 3.3. Common Reporting Standard

The CRS, developed in response to the G20 request and approved by the OECD Council on 15 July 2014, calls on jurisdictions to obtain information from their financial institutions and automatically exchange that information with other jurisdictions on an annual basis. It sets out the financial account information to be exchanged, the financial institutions required to report, the different types of accounts and taxpayers covered, as well as common due diligence procedures to be followed by financial institutions. The first exchanges took place in September 2017 involving around 50 jurisdictions. A similar number of jurisdictions began exchange in September 2018 meaning that around 100 jurisdictions now exchange information on financial accounts under the CRS annually.

3.3. Assessment

The tax assessment function includes all activities related to processing tax returns, including issuing assessments, refunds, notices and statements. It also includes the processing and banking of payments. These “processing” activities, as they are referred to in many administrations, continue to be an area of significant change and focus as administrations look to take cost out of high volume processes.

Pursuing higher levels of electronic filing and payment by taxpayers is enabling administrations to reduce their costs and to improve the services they provide to taxpayers. This function is also heavily involved in managing an expanding range of data that administrations are collecting electronically from a growing number of third party organisations. As well as updating information on the use of e-channels for filing and paying, this section will:

- outline administrations’ efforts to provide pre-filled returns for individual and corporate taxpayers, including the expansion of this approach by some into “no-return regimes”
- discuss the level of on-time return filing and payment.

Box 3.4. Automatic tax assessments

In *Austria*, the Austrian tax administration is pursuing a strategy to provide “simple, electronic, effective” services through a number of new initiatives. For example, citizens who paid too much income tax will be reimbursed automatically by their tax office without the need for an application. From July 2017, employee tax assessments occur automatically in many cases in the form of so-called “application-free employee tax assessments”. The advantage for taxpayers is that they will no longer need to submit a tax declaration. Excess taxes paid will be calculated by the Financial Administration, the resulting tax returns transferred to the taxpayer’s bank account and a corresponding notification issued. Since the system began, around 2 million cases, mainly taxpayers that have not claimed their tax credit in the recent years, received in total approximately EUR 400 million in automatic tax refunds. With phase 2 of this project, starting with the fiscal year 2017, an automatic data exchange has been established between a number of institutions receiving certain payments and the Financial Administration removing the need for taxpayers to provide data on these special expenses in their tax declaration.

Source: Austria – Federal Ministry of Finance (2019).

3.3.1. Use of e-channels for filing and paying

Table 3.1 provides average e-filing rates from jurisdictions that provided details of channels used by taxpayers to file. More than four-out-of-five business taxpayers filed their returns electronically. For personal income tax return filers this figure is now above 70%. Also, it should be noted that for an increasing number of administrations a 100% e-filing rate has already become reality (see Table D.14).

Table 3.1. Average e-filing rates (in percent)

Tax type	2016	2017
Personal income tax	70.9	73.5
Corporate income tax	82.7	85.3
Value added tax	83.8	89.0

Source: Table D.14 Electronic filing.

Looking at the evolution of e-filing rates over the period 2014 to 2017 shown in Table 3.2, it becomes clear that e-filing rates increased significantly – between 7 and 9 percentage points – across the three main tax types. It should be noted that the table only takes into account information from jurisdictions that were able to provide data for all years.

Table 3.2. Evolution of e-filing between 2014 and 2017

Percentage of returns filed electronically

	2014	2015	2016	2017
Personal income tax (30 jurisdictions)	59.8	62.1	64.4	69.1
Corporate income tax (29 jurisdictions)	79.0	85.1	82.6	86.0
Value added tax (25 jurisdictions)	82.3	84.8	86.6	91.1

Note: The table shows the evolution of the average e-filing rates for those jurisdictions that were able to provide the information for the years 2014 to 2017. The number of jurisdictions for which data was available is shown in brackets.

Sources: Table D.14 Electronic filing and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.8, https://doi.org/10.1787/tax_admin-2017-en.

When looking at the electronic payment proportions in Table 3.3, more than half of the number of payments are made electronically. The percentage of e-payments by value is even greater, with almost two-thirds of the value of payments made electronically. This seems to indicate that particularly large taxpayers make use of this payment channel. Looking at the evolution of e-payment rates is not meaningful, due to the limited number of jurisdictions that were able to provide data for the period 2014 to 2017.

Table 3.3. Average e-payment rates (in percent)

	2016	2017
By number of payments	52.8	56.1
By value of payments	62.8	64.7

Source: Table D.19 Electronic payment proportions.

There remain a number of jurisdictions where the volume of returns filed using paper as well as in-person payments remains high. Among those jurisdictions that provided data, more than 110 million returns were filed in paper (see Tables A.89 to A.91). It is to

be expected that this figure will decline over time as more administrations take steps to encourage more taxpayers to use electronic platforms where possible. This will not only lower administration costs but also reduce taxpayer burden. In this respect, Thailand has for example implemented a national e-payment master plan which includes an electronic tax systems covering e-tax invoice, e-withholding tax and e-filing. The e-tax system aims at facilitating commercial transactions and reducing operating costs thus increasing the competitiveness of businesses in Thailand.

Box 3.5. New approaches for payments

In *Canada*, citizens have a number of options when making their tax payments, e.g. using online banking, paying online with a debit or credit card (through a third-party service provider), setting up a pre-authorised debit, paying at a financial institutions or mailing a cheque. However, a small number of Canadians have expressed the preference to pay by cash. In May 2017, the Canada Post Corporation (CPC), in collaboration with Canada Revenue Agency (CRA), launched a pilot allowing Canadians to pay their taxes in-person with cash or debit card at CPC outlets across Canada for a fee. In this new channel, payments are made using a personalised quick response (QR) code, which is scanned when the payment is made. By leveraging this third-party service, the CRA was able to provide more choice to Canadians, including those with limited access to the Internet or those who do not live in close proximity to a financial institution.

In *the Netherlands*, a tool has been launched for improved handling of requests for payment arrangements whether by phone or in writing. This new tool automatically identifies applicants who are eligible, not eligible or possibly eligible for a payment arrangement. This reduces the workload previously required for processing applications for payment arrangements and allows officials to focus on those cases where a review of circumstances is required to make a decision. This tool and the underlying script could also serve as a stepping-stone for self-service using a web-portal.

In *Thailand*, tax refunds can be made via PromptPay, a system which enables mobile fund transfers using only a mobile number or the Citizen ID number of the recipient. It can also be used to receive payments from government agencies. Taxpayers who submit their tax return forms via the internet, also have a choice to have their tax refund to be wired into their PromptPay account that is linked to their Citizen ID number.

Sources: Canada – Canada Revenue Agency (2019), the Netherlands – Netherlands Tax and Customs Administration (2019) and Thailand – The Revenue Department (2019).

3.3.2. Pre-filled returns

One of the significant innovations in tax return process design over the last two decades has been the development of pre-filled tax returns, primarily for personal income taxpayers. The pre-filled approach involves administrations “pre-populating” the taxpayer’s return or on-line account with information it has collected from third parties. The pre-filled return can be reviewed by the taxpayer and either filed electronically or in paper form. As the extent of pre-population is generally determined by the range of electronic data sources available to the administration, it is critical to this approach that the legislative framework provides extensive and timely third party reporting covering all relevant taxpayer information.

Advocates of pre-filling initially encouraged its use with individual tax regimes that allowed relatively few deductions and credits, and these only where they could be verified with third party data sources. Advances in rules based technologies and analytics mean that the approach can now be considered more widely. For example, in Portugal, PIT returns for employees and pensioners are now totally pre-filled (with some very limited exceptions like alimony). This includes tax deductions and benefits, for example for expenses on health and education, allowing a fully automated tax return. Additional approaches are included in Box 3.6.

Box 3.6. Pre-filling

In *Italy*, since 2015 the Italian Revenue Agency (Agenzia delle Entrate) makes available to workers and pensioners a partially pre-filled tax return using both information available in Tax Registry and data provided by third parties. With the introduction of the pre-filled tax return, the traditional system of tax returns, as regards workers and pensioners, has changed completely. Prior to the adoption of the new system, the income was declared directly by the taxpayer, who was required to calculate and pay taxes. Tax returns were subject to formal inspections by the Revenue Agency based on data provided by the third parties (withholding tax agents, banks, post offices, insurance companies, etc.). When the taxpayer accepts all data contained into proposed tax return, this data is not subject to formal inspections. The Italian Revenue Agency has increased significantly the number of users of the pre-filled tax return option that is now available for every taxpayer that declares at least one employee or pension income. From 2018, the pre-filled tax return includes much more data related to deductions and expenses, such as expenditures for nursery schools and donations to non-profit organisations.

In *Mexico*, in order to improve the timely fulfilment of tax returns for personal income tax, the Tax Administration Service of Mexico (SAT) upgraded the technological tool “DeclaraSAT” with the following features: the tax return has pre-filled information on income, payments and personal deductions for most taxpayers; the personal income tax is calculated automatically; a fully pre-filled tax return is proposed to taxpayers whose income comes from wages only, which amount to more than 50% of the total taxpayers who file a tax return; if there’s no inconsistency with the information filled in the tax return, it can be used in the automatic refund process, which takes less than 5 days. These improvements turned the DeclaraSAT into a simple, reliable and functional tool and has resulted in a significant increase in the filling of personal income tax returns to around 500 000 annually.

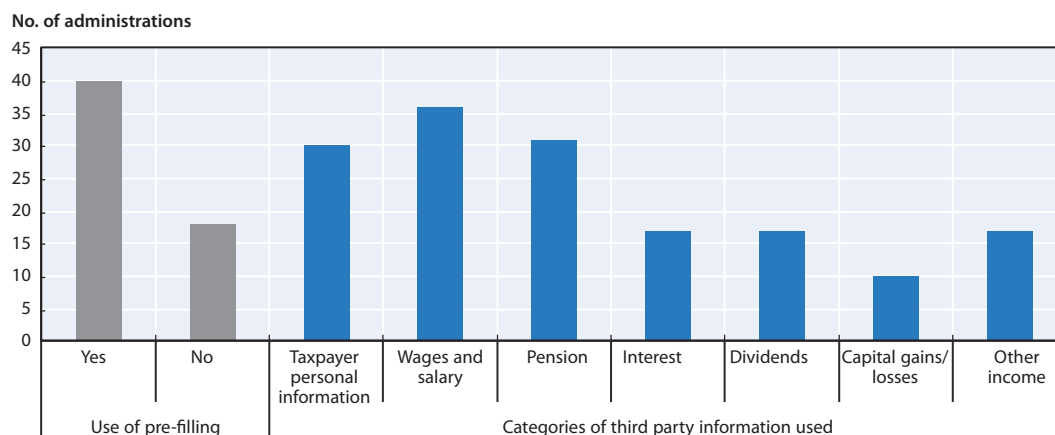
Sources: Italy – Agenzia delle Entrate (2019) and Mexico – Servicio de Administración Tributaria (2019).

In addition, the availability of electronic invoicing systems allows tax administrations to start to go beyond personal income tax returns and (fully) pre-fill corporate income tax and value-added tax returns (see Tables D.15 and D.17).

With respect to personal income tax, the pre-filled regime adopted by 12 jurisdictions (Australia, Austria, Belgium, Denmark, Finland, Hungary, Lithuania, Malaysia, Norway, Portugal, Slovenia and Spain) further extends this approach to “deem acceptance” of the prepared return after the expiry of a notice period (see Table D.16). In their most advanced form, complete pre-filled returns are being generated for large proportions of the individual tax base.

Many administrations report strategies to extend the range of data sources used to improve coverage of the regime and the quality of the pre-filled return. For example Portugal now includes tax deductions and benefits, such as expenses on health care and education, allowing for fully automated returns (see Box 3.6 for further examples). In this respect, Figure 3.3 displays information provided by the 40 jurisdictions that in 2017 reported using pre-filled returns.

Figure 3.3. Categories of third party information used in pre-filled returns, 2017

StatLink  <http://dx.doi.org/10.1787/888933983908>

Source: Table A.86 Return or assessment pre-filing.

3.3.3. On-time return filing

Even allowing for changes occurring because of pre-filled or no-return regimes, the filing of a tax return is still the principal means by which a tax liability is established and becomes payable. As a result, the on-time filing rate is seen as an effective measure of the health of the tax system as well as the performance of the tax administration itself.

Table 3.4 summarises on-time return filing for those administrations able to supply information by tax type. Apart from corporate income tax, the rates are around 85%. The lower rates for corporate income tax may be explained through more complexity in the corporate income tax system and the preparation of financial statements and year-end reports. As noted in Chapter 1, the evolution of on-time filing rates shows remarkably consistent data for those jurisdictions that were able to provide data for all years (see Table 1.2).

Table 3.4. Average on-time filing rates (in percent) by tax type

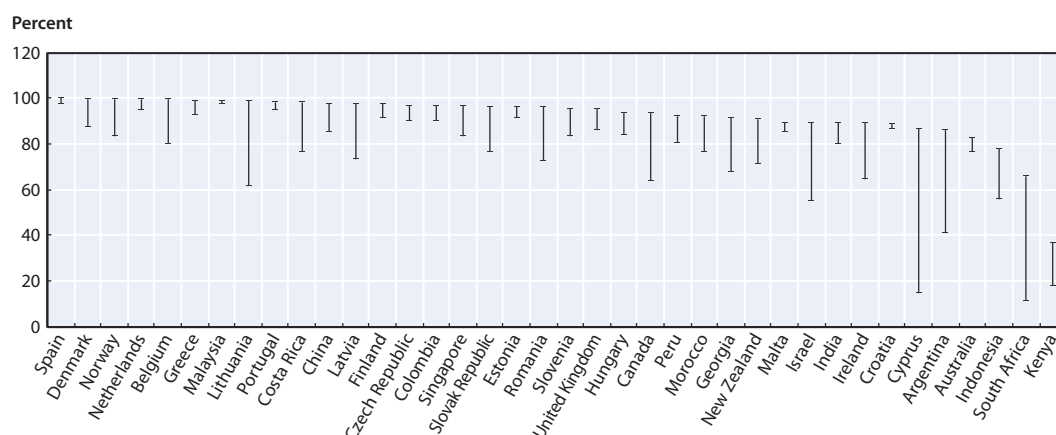
Tax type	2016	2017
Personal income tax	82.6	85.2
Corporate income tax	76.1	78.2
Employer Withholding (WHT)	85.7	85.7
Value added tax	85.6	85.7

Source: Table D.12 On-time filing rates.

A broader examination reveals two issues of note:

- Firstly, the range of on-time filing performances shown in Figure 3.4 illustrates a significant gap in on-time filing across the main tax types for a number of jurisdictions, in some cases above 50 percentage points. A geographic pattern cannot necessarily be observed.
- Secondly, overall on-time filing rates that averaged between 78% and 86% in 2017 (see Table 3.4) may be lower than desirable and an area of concern given that most respondents operate tax systems that rely on voluntary compliance by taxpayers. Looking at the underlying data approximately 150 million returns are not filed on time.

Figure 3.4. Range in on-time filing performance, 2017

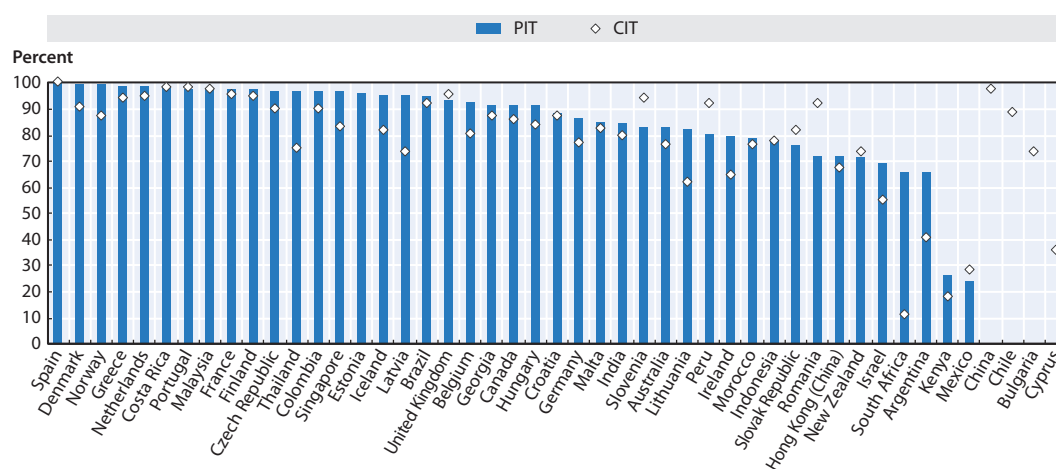


StatLink  <http://dx.doi.org/10.1787/888933983927>

Note: The figure shows for each jurisdiction the range in on-time filing performances in 2017 across the four tax types: PIT, CIT, Employer WHT and VAT. It only includes jurisdictions for which information was available for at least three tax types.

Source: Table D.12 On-time filing rates.

Figure 3.5. PIT and CIT on-time filing rates, 2017



StatLink  <http://dx.doi.org/10.1787/888933983946>

Note: PIT percentage for Hungary and CIT percentage for Malta relate to the year 2016.

Source: Table D.12 On-time filing rates.

3.3.4. On-time payment

Payment of tax constitutes one of the most common interactions between taxpayers and tax administrations, especially for businesses that are typically required to regularly remit a variety of payments covering both their own tax liabilities and those of their employees. Administrations continue to make progress in increasing the range of e-payment options available to taxpayers and to increase their use. This progress not only lowers the cost to the administration, it can increase on-time payments and reduce the number of payment arrears cases by providing improved access and a better payment experience.

The on-time payment rates for those administrations able to supply information by tax type are summarised in Tables 3.5 and 3.6. The tables show:

- On-time filing and payments rates are similar for personal income tax (PIT), while the payment rates for corporate income tax (CIT), employer withholding tax (WHT) and VAT are on average 9 percentage points higher than filing rates. This means businesses are more likely to pay on-time than file on-time; while individuals are as likely to file on-time as they are to pay on time.
- While average on-time payments rates in 2017 of between 87% and 96% appear high, lifting these rates should continue to be an area of focus for administrations given the amounts of revenue involved.
- Similar to on-time filing, the evolution of on-time payments between 2014 and 2017 shows consistent data.

Table 3.5. Average on-time payment rates (in percent) by tax type

Tax type	2016	2017
Personal income tax	87.5	87.3
Corporate income tax	92.1	91.9
Employer Withholding (WHT)	95.7	95.8
Value added tax	91.7	92.6

Note: PIT on-time payment rates for Indonesia for 2016 and 2017, the Employer WHT on-time payment rate for 2016 for Russia, and the VAT on-time payment rates for South Africa for 2016 and 2017 have been excluded from the calculation as they would distort the average ratios.

Source: D.18 On-time payment performance.

Table 3.6. Evolution of on-time payment rates (in percent) between 2014 and 2017

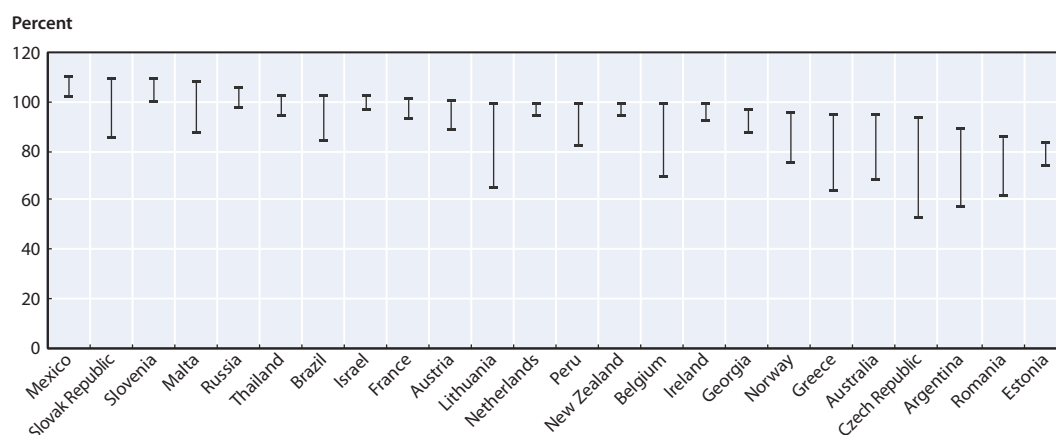
Tax type	2014	2015	2016	2017
Personal income tax (17 jurisdictions)	81.4	82.6	84.1	84.3
Corporate income tax (18 jurisdictions)	91.3	93.4	92.0	92.2
Employer withholding (WHT) (13 jurisdictions)	93.0	94.4	94.7	94.8
Value added tax (18 jurisdictions)	90.3	91.6	90.9	91.6

Note: The table shows the evolution of the average on-time filing rates for those jurisdictions that were able to provide the information for the years 2014 to 2017. The number of jurisdictions for which data was available is shown in brackets.

Sources: Table D.18 On-time payment performance and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.9, https://doi.org/10.1787/tax_admin-2017-en.

The range in on-time payment depicted in Figure 3.6 shows that on-time payment performance is more consistent with fewer outliers than is the case with on-time filing. Nevertheless, for some jurisdictions on-time payment rates continue to be low for certain taxes.

Figure 3.6. Range in on-time payment performance, 2017



StatLink  <http://dx.doi.org/10.1787/888933983965>

Note: On-time payments are expressed as a percentage of estimated payments expected by due date and can therefore be above 100%. The figure shows for each jurisdiction the range in on-time payment performances in 2017 across the four tax types: PIT, CIT, Employer WHT and VAT. It only includes jurisdictions for which information was available for at least three tax types. Figures for South Africa have not been included due to the large differences in the CIT, PIT and VAT on-time payment performances.

Source: D.18 On-time payment performance.

Box 3.7. Paying taxes

In **Georgia**, in 2016, the GRS introduced a single taxpayer account (unified treasury code) to simplify procedures for taxpayers. The account simplifies the tax payment system, reduces the number of procedures and decreases the amount of time spent on payment. Under the new system, taxpayers only have to indicate one treasury code for any type of tax payment, instead of 125 codes for different transactions. In addition, overpaid taxes will be recorded at gross and not by each type of tax individually, therefore the excess amounts will automatically be offset against tax liability by the end of the day.

Source: Georgia – Georgian Revenue Service (2019).

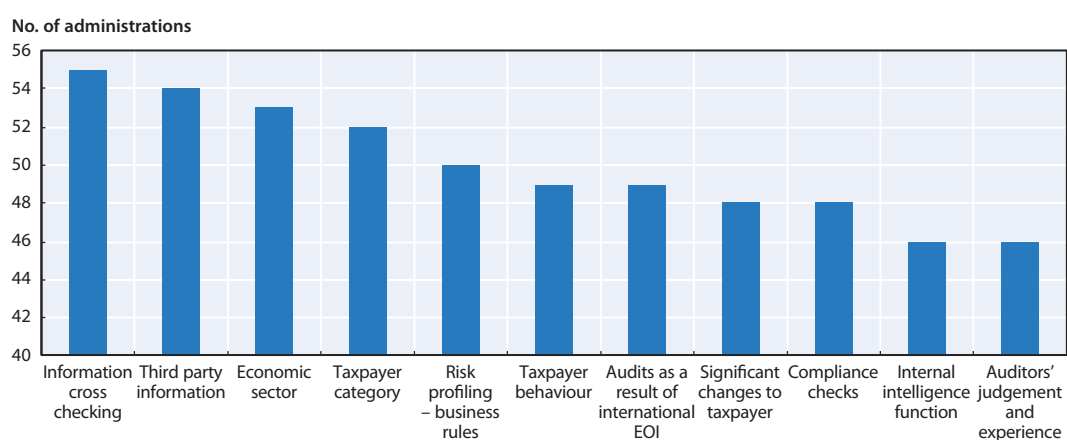
3.4. Verification

The verification function in tax administration has various names, but used here it encompasses those functions that assess the accuracy and completeness of taxpayer reported information. This function employs on average 30% of tax administration staff and verifies that tax obligations have been met, mainly still through the conducting desk or field based “tax audits.” The undertaking and visibility of these and other “compliance actions” is critical in supporting voluntary compliance. This section comments on the following topical issues: case selection, information and access powers, coverage and results, as well as work on tax and crime.

3.4.1. Case selection

The most common case selection criteria used by the 58 administrations covered in this report are set out in Figure 3.7. Compared to the 2015 data included in Figure 6.8 in 2017 edition (OECD, 2017^[1]) the eight most common selection criteria remain the same and there were only small changes in their respective order. External data sources for case selection, including international information exchange, continue to be extremely important. Interestingly, even though data sciences techniques, such as predictive modelling, are becoming more sophisticated only half of the administrations report the use of predictive risk based analytical models to identify cases, something that has not changed since 2015 (see Table A.168).

Figure 3.7. Most common verification case selection criteria, 2017



StatLink <http://dx.doi.org/10.1787/888933983984>

Sources: Tables A.167 to A.169 Verification/audit case selection.

3.4.2. Information and access powers

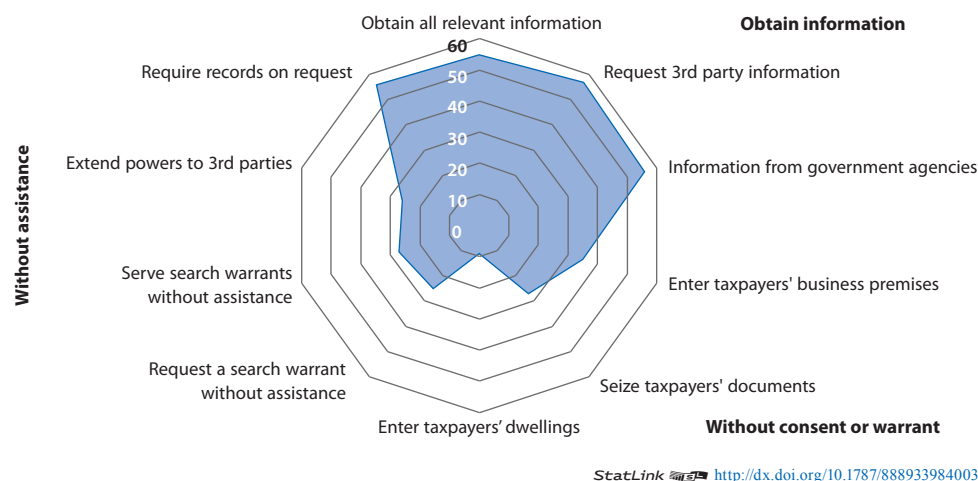
The legislative framework in place regarding tax administrations generally includes provisions that enable officials to acquire information required for tax purposes from taxpayers and other parties and to be able to access books and records. Almost all administrations report having four powers related to obtaining information set out in Figure 3.8.

When it comes to the exercising of powers “without consent or warrant”, the picture is not as clear. Around 60% of administrations report the ability to enter business premises; just under half have the power to seize documents; but only 9 of 58 report having the power, without consent or warrant, to enter the dwelling of the taxpayer.

Just over 40% report that they can request a search warrant, without assistance, while slightly more can serve the search warrant themselves. When it comes to agency situations, 45% of the administrations report that their legislation permits the Director General or Commissioner to extend information and access powers to third parties.

Figure 3.8. **Information and access powers, 2017**

Number of administrations that have the particular power



Sources: Tables A.133 and A.134 Information gathering powers.

3.4.3. Coverage and results

The type of “compliance actions” undertaken by tax administrations to determine whether taxpayers have properly reported their tax liability is changing. In the past, administrations used risk based models to help them identify which cases in a population or segment should be subject to verification. The introduction of sophisticated analytical models are allowing administrations to better identify returns, claims or transactions which might require further review or be fraudulent (OECD, 2016_[3]). Further these models, many of which can operate in real-time, are allowing administrations to conduct automated reviews on all returns or transactions of a particular type.

As covered in Chapter 1, some administrations are reporting the use of “automated machine actions” using rules-based approaches to treat some defined risks (e.g. automatically denying a claim, issuing a letter or matching a transaction). While tax audits (including comprehensive, issue or desk audits) are still the primary verification activities, these rules based approaches are providing administrations with more effective and efficient ways to undertake some verification work.

These approaches do, however raise the question of how to reflect “automated actions” in the performance information that administrations report. To include all checking may distort coverage, adjustment and yield rates. However where it replaces previously undertaken manual actions it would seem appropriate to both record the volume and reflect more accurately what administrations are now doing in this area, and to reflect the substantially reduced cost per audit.

In this respect, the International Survey on Revenue Administration (ISORA) 2018 survey invited participants to provide details not only in relation to comprehensive, issue or desk audits but also on automated audits, i.e. systems/rule-based activities undertaken by the administrations in an automated manner. Only a few administrations were able to provide detailed information (see Table A.161) with eight reporting having completed each more than 200 thousand automated audits. Belgium and Estonia have even completed more than 1 million automated audits.

Looking at the other data on audit activity, there are some additional very general observations that can be made. While there are some outliers, which may point at inconsistencies in the underlying data reporting, average adjustment rates remain similar when comparing the rates of those jurisdictions for which data is available for the years 2014 to 2017 (see Table 3.7). From the information reported on adjustment by audit type, comprehensive audits in general are most likely to produce an adjustment, with desk audits the least.

Table 3.7. Evolution of the average verification adjustment rate by audit type (in percent) between 2014 and 2017

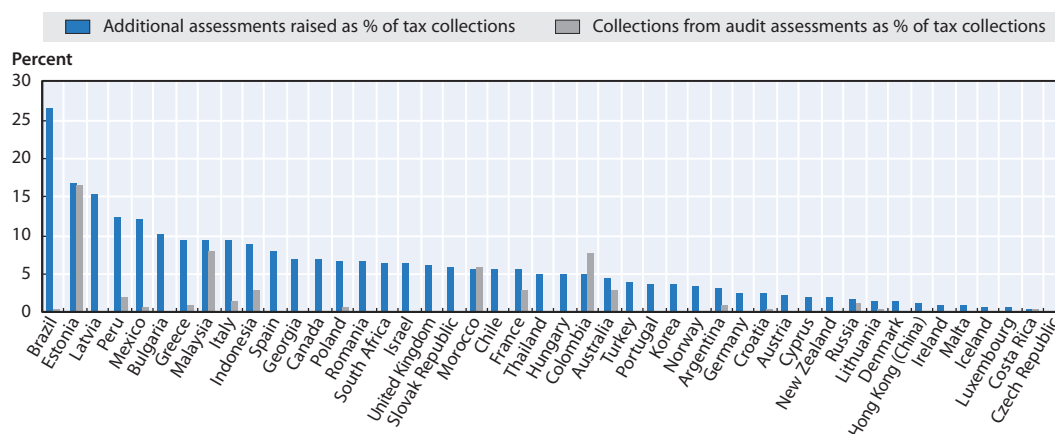
Audit type	2014	2015	2016	2017
Comprehensive audits (25 jurisdictions)	79.3	82.3	77.5	78.3
Issue-oriented audits (26 jurisdictions)	64.2	64.0	61.7	63.4
Desk audits (14 jurisdictions)	53.2	57.2	54.4	58.5

Note: The table shows the evolution of the average verification adjustment rates by audit type for those jurisdictions that were able to provide the information for the years 2014 to 2017. The number of jurisdictions for which data was available is shown in brackets.

Source: Table D.24 Hit rate by audit type and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.16, https://doi.org/10.1787/tax_admin-2017-en.

The importance of the verification function can also be seen when looking at the additional assessments raised and collections from audits (see Figure 3.9). In many jurisdictions, the additional assessments from audits correspond to more than 5% of total revenue collections. The 45 administrations that were able to provide data report on average 6% of additional assessments raised through audit as percentage of tax collections. The actual amounts collected from audit assessments are lower but can still be significant, on average 3% of total tax collections (see Table D.25).

Figure 3.9. Assessments raised and collections from audits



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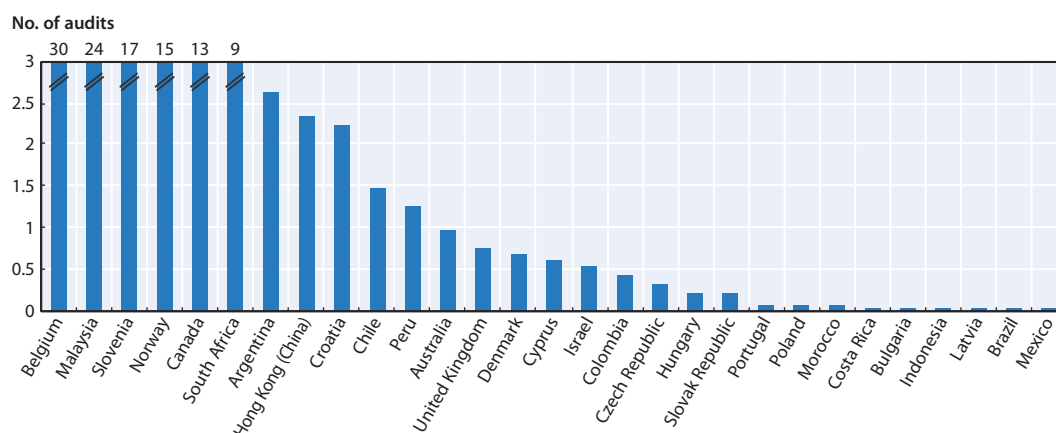
Note: Collections from audit assessments may relate to assessments made in previous fiscal years. Data for Germany relates to the year 2016.

Source: Table D.25 Assessments raised and collections from audits.

Coverage rates across revenue types continue to vary so markedly that any meaningful comparison proves to be difficult (see Figures 3.10 and 3.11 and Table D.26).

Figure 3.10. **PIT audit coverage, 2017**

Number of PIT audits completed per 100 active PIT taxpayers



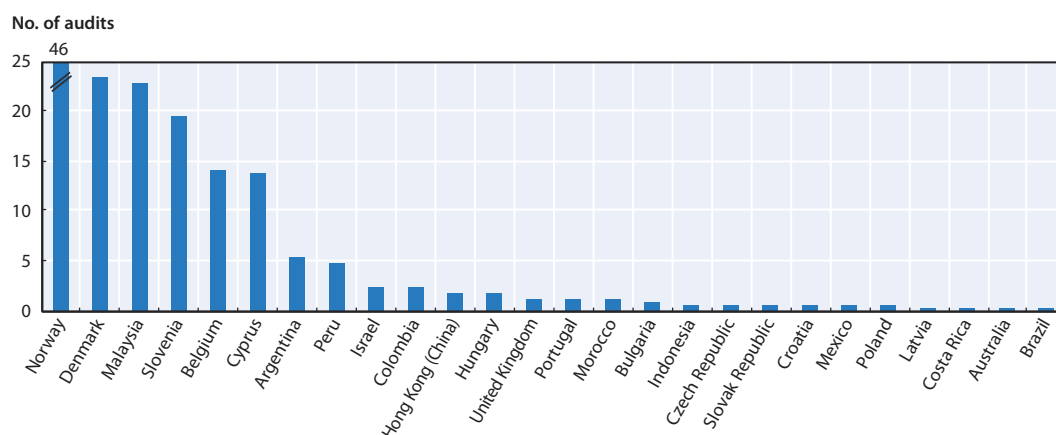
StatLink <http://dx.doi.org/10.1787/888933984041>

Note: For Belgium, the percentage shown is higher than the actual figure as couples (e.g. married, civil union) are considered as one personal income taxpayer. For Croatia, the number of audits completed refers to the number of issued audit announcements. PIT related figures include tax withheld from employees by employers and social security contributions. For Morocco, the figure only refers to comprehensive and issue-oriented audits.

Source: Table D.26 Audit coverage by tax type.

Figure 3.11. **CIT audit coverage, 2017**

Number of CIT audits completed per 100 active CIT taxpayers



StatLink <http://dx.doi.org/10.1787/888933984060>

Note: For Croatia, the number of audits completed refers to the number of issued audit announcements. For Morocco, the figure only refers to comprehensive and issue-oriented audits.

Source: Table D.26 Audit coverage by tax type.

3.4.4. Tax crime investigations

Tax crime occurs when people intentionally avoid paying tax or claim money they are not entitled to. Table 3.8 summarises arrangements for managing tax crime cases in the 45 tax administrations that report having a role in such investigations. Just under half of these administrations perform the whole investigation activity, with the balance playing a range of roles in prosecuting the case to conclusion.

Table 3.8. **Management arrangements for criminal tax investigations, 2017**

No. of administrations that have a role in criminal tax investigations	Cases management			
	Managed by the administration	Managed by another agency	Managed jointly with the administration leading	Managed jointly with another agency leading
45	22	5	5	13

Source: Table A.137 Tax crimes – Role of the administration and management arrangement.

Criminal activities are dynamic and adapt to take advantage of new opportunities for financial gain, frequently outpacing the legislative changes designed to combat them. Finding better ways to fight tax crime is a high priority. Money laundering, corruption, terrorist financing, and other financial crimes can threaten the strategic, political and economic interests of jurisdictions. Countering these activities requires improved transparency and greater efforts to harness the capacity of different government agencies to collectively deter, detect and prosecute these crimes through a whole of government approach. Box 3.8 provides an example of activity in one administration.

Box 3.8. Criminal tax investigations

In *Canada*, the CRA is focussed on developing internal and external partnerships to promote quality referrals for criminal investigations, and on collaborative work with other enforcement organisations such as police organisations and other government departments. Legislative changes have been introduced to facilitate the sharing of information between the CRA and police organisations. The legislation allows the CRA to provide appropriate taxpayer information to domestic or international police organisations if there are reasonable grounds to believe the information would provide evidence of a listed serious offence, such as drug trafficking, terrorism, child pornography, money laundering, fraud or corruption, etc. The accompanying procedures ensured that the sharing of taxpayer information followed a rigorous and consistently applied protocol and that the strict requirements of the legislation are met. In 2017-18, the CRA participated in 12 joint forces operations with other law enforcement agencies.

Source: Canada – Canada Revenue Agency (2019).

As illustrated in Table 3.9, the resourcing of criminal tax investigation work shows a remarkable consistency between years 2014 and 2017, when comparing the results of the administrations able to report information for both years. With respect to the caseload, the cases under investigation not yet referred for prosecution, i.e. cases on hand, grew by around 15% while the number of cases referred for prosecution and prosecuted reduced by around 10%.

Table 3.9. Summary of criminal tax investigation work

	No. of Full-time equivalents in programme	Cases on hand	Cases referred for prosecution	Cases prosecuted
No. of jurisdictions	27	24	27	22
2014	12 642	18 429	19 642	20 207
2017	12 119	21 349	17 236	18 332
Change in percent	-4.1	+15.8	-12.3	-9.3

Note: With respect to the number of cases referred for prosecution and prosecuted, Poland has been excluded from this summary given the distortionary effect of the large number of cases.

Source: Table A.138 Tax crimes – Reporting information.

Box 3.9. OECD responses to tax crime

The OECD aims to address the challenges in detecting, preventing, and combatting tax crime through the work of its Task Force on Tax Crimes and Other Crimes which meets in Paris twice a year to plan and adopt work relating to the implementation of the “Oslo Dialogue.” The Oslo Dialogue is a policy initiative launched in 2013 to promote a “whole of government” approach to fighting tax crime and other financial crimes through three key pillars: (i) standard setting and best practices; (ii) capacity building; and (iii) evaluation and impact measurement.

The OECD’s standard setting work aims to ensure the implementation of effective legal, operational, and cultural frameworks to support the fight against tax crimes and other financial crimes. Two key reference documents underpin this work: Effective Inter-Agency Co-operation in Fighting Tax Crimes and Other Financial Crimes, also called “The Rome Report” (OECD, 2017^[4]), and the Ten Global Principles for Fighting Tax Crime (OECD, 2017^[5]). Building on these reports, in 2018, the OECD partnered with the World Bank to publish a joint report on Improving Co-operation between Tax Authorities and Anti-Corruption Authorities in Combating Tax Crime and Corruption. All three reports enable countries to benchmark their frameworks for combatting tax crime to identify shortcomings and measures to overcome these, learning from the successes of others.

Central to the capacity building pillar of the Oslo Dialogue is the OECD’s International Academy for Tax Crime Investigation. The OECD launched its first Academy in 2013, hosted by Italy’s Guardia di Finanza, to enhance the ability of law enforcement authorities to detect and investigate tax crimes and other financial crimes and to recover the proceeds of those crimes. Since its inception, there has been a steady increase in demand for participation in the Academy, resulting in the launch of a Latin America Academy, in Argentina, in 2018, and the anticipated launch of an Asia Academy, in Japan, in June 2019. The OECD has also run several pilot Academy programmes in Kenya with a view to the formal creation of an Africa Academy for Tax and Financial Crime Investigation. At a bilateral level, the OECD is also piloting a Tax Inspectors Without Borders-Criminal Investigation Programme (TIWB-CI) that pairs experienced investigators from partner administrations with tax crime investigators in a developing “host” administration to provide real-time in-country assistance in criminal tax investigations. This is based on the existing joint OECD-UNDP TIWB programme that provides the same type of assistance in civil tax audit cases (presentation enclosed).

The third pillar of the Oslo Dialogue focusses on evaluating the stage of countries’ implementation of international best practices and monitoring the impact of capacity building efforts. To support these efforts the OECD is currently developing a comprehensive diagnostic tool for assessing the capability of developing countries to investigate and prosecute tax crime and other financial crimes that will also assist in monitoring the impact that capacity building interventions have over time.

3.5. Collection

The collections function involves taking action against those who do not file a return on-time, and/or make a payment when it is due. All but two of the administrations (Chile and Iceland) participating in the survey report being responsible for debt collection enforcement work (see Table A.12). Information provided by 48 of these administrations for 2017 attributes 10.2% of their total tax staff numbers to the collection function (see Table D.4).

3.5.1. Collecting outstanding returns

Even with the growth in “pre-filled or no return” approaches over the last decade, the filing of a tax return or declaration still remains the principal means by which a taxpayers liability is established in the majority of jurisdictions participating in this publication.

While more than 70% of administrations reported that they “mostly achieved” their outstanding return collection targets (see Table A.16), the number of outstanding returns at the end of the fiscal year 2017 and the number of taxpayers with outstanding returns is high (see Table 3.10).

Table 3.10. **Outstanding return collection, 2017**

Tax type	No. of taxpayers who have overdue tax returns at end of fiscal year		No. of overdue tax returns at end of fiscal year	
	No. of jurisdictions	No. of taxpayers	No. of jurisdictions	No. of tax returns
Personal income tax	18	14.2 m	30	18.8 m
Corporate income tax	20	8.1 m	29	27.2 m
Value added tax	22	6.6 m	29	26.0 m

Sources: Tables A.92 Total number of overdue tax returns and A.93 Total number of taxpayers who have overdue tax returns.

3.5.2. Collecting outstanding debt

In looking at debt collection, the 2014 report *Working Smarter in Tax Debt Management* (OECD, 2014_[6]) provided an overview of the modern tax debt collection function, describing the essential features as:

- *Advanced Analytics* – that makes it possible to use all the information tax administrations have about taxpayers to accurately target debtors with the right intervention at the right time.
- *Treatment Strategies* – the collection function needs a range of interventions, from those designed to prevent people becoming indebted, through to measures to support taxpayers in the making payment of debt and tough enforcement measures where appropriate.
- *Outbound call centres* – which make it possible to efficiently pursue a large number of debts.
- *Organisation* – debt collection is a specialist function and is usually organised as such. The right performance measures and a continuous improvement approach help drive desired outcomes.
- *Debtors Who Have Gone Abroad* – the proper and timely use of international assistance is crucial, particularly the “Assistance in Collection Articles” in agreements between jurisdictions.

The recent report *Successful Tax Debt Management: Measuring Maturity and Supporting Change* (OECD, 2019^[7]) provide further insights into the elements of a successful tax debt management strategy, setting out four strategic principles that tax administrations may wish to consider when setting their strategy for tax debt management. These principles focus on the timing of interventions in the tax debt cycle, from consideration of measures to prevent tax debt arising in the first place, to early and continuous engagement with taxpayers before enforcement measures, to effective and proportionate enforcement and realistic write-off strategies. The underlying premise for these principles is that focusing on tackling debt early, and ideally before it has arisen, is the best means to minimise outstanding tax debt. The report also contains an overview of a Tax Debt Management Maturity Model and a compendium of recent and successful tax debt management initiatives.

This section of the report comments on tax administration performance in managing the collection of outstanding debt and on the information and access powers administrations have in this regard. It then provides an update on advanced analytics and treatment strategies, preventive approaches to debt being incurred and cross border collection.

3.5.3. Performance in collecting outstanding debt

The range of actions undertaken by tax administrations to collect outstanding tax arrears continues to evolve. Advances in predictive modelling and experimental techniques as reported in the OECD report on Advanced Analytics for Better Tax Administration (OECD, 2016^[3]) are helping many administrations better match interventions with taxpayer specific risk. The use of a range of intervention approaches is helping prevent debt from arising as well dealing with the collection of tax arrears. Outbound calling is now seen common practice and not just best practice, and administrations are starting to more actively use more of the collection powers granted to them by government.

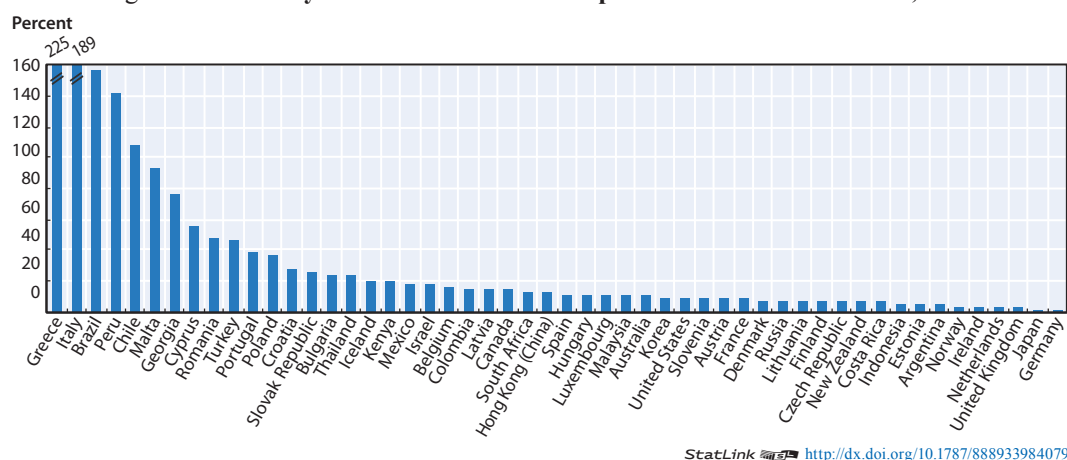
Total outstanding tax arrears remain very large, in the region of EUR 2 trillion (see the figure contained in the executive summary). For survey and comparative analysis purposes, “total tax arrears” is defined as the total amount of tax that is overdue for payment at the end of the fiscal year and includes any interest and penalties. The term includes tax arrears whose collection has been deferred (e.g. as a result of payment arrangements). “Collectable tax arrears” is the total arrears figure less any disputed amounts or arrears which for other reasons are unable to be collected, but where write off action has not yet occurred.

In 2017, the average arrears to net revenue ratio was 32%. However, as in past years, it remains heavily influenced by the very large ratios of Brazil, Chile, Georgia, Greece, Italy, Malta and Peru. If these jurisdictions are removed the average reduces to around 15% of net revenue (see Figure 3.12 and Table D.20).

Looking at collectable tax arrears, the data for 39 jurisdictions shows that on average 54% of the total arrears are considered collectible (see Table D.20). However, Figure 3.13 illustrates well the differences between jurisdictions: In some jurisdictions almost all arrears are considered collectible (e.g. Hungary, Malaysia and Poland), while in others almost all arrears are considered not collectible (e.g. Italy, Malta and the Slovak Republic).

In looking at the number of debt cases, volumes as a percentage of opening cases have decreased between 2016 and 2017 in 60% of the administrations that reported both opening and closing inventory (see Figure 3.14).

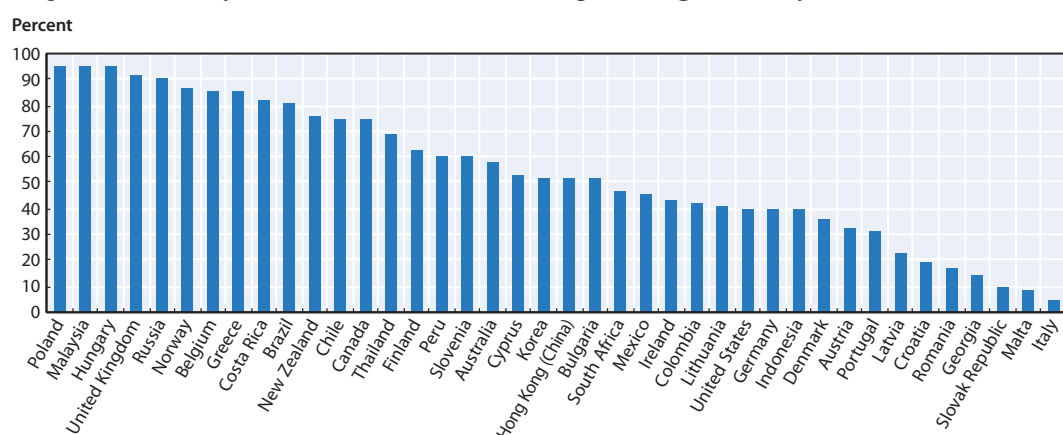
Figure 3.12. Total year-end tax arrears as a percent of total net revenue, 2017

StatLink <http://dx.doi.org/10.1787/888933984079>

Note: To improve comparability, VAT (gross imports) has been removed from the total net revenue collected.

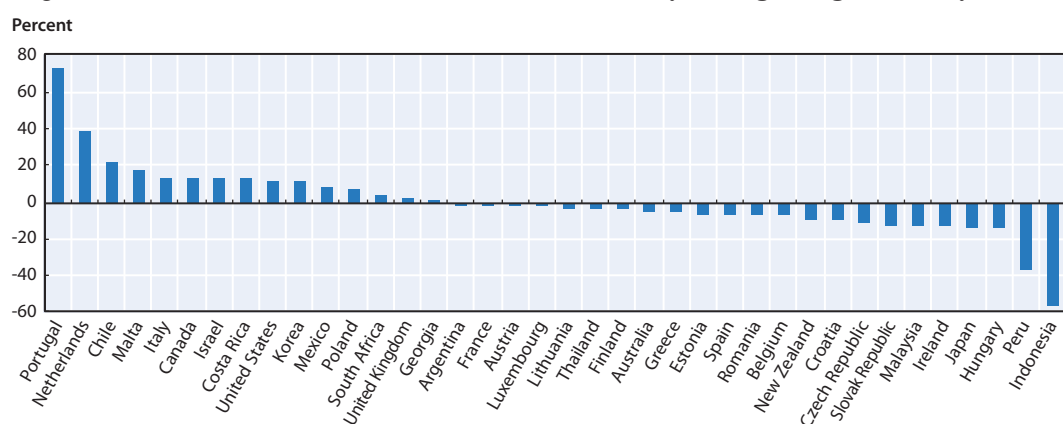
Source: Table D.20 Arrears and collectible arrears.

Figure 3.13. Total year-end collectible arrears as percentage of total year-end arrears, 2017

StatLink <http://dx.doi.org/10.1787/888933984098>

Source: Table D.20 Arrears and collectible arrears.

Figure 3.14. Movement in tax arrears cases between 2016 year-beginning and 2017 year-end

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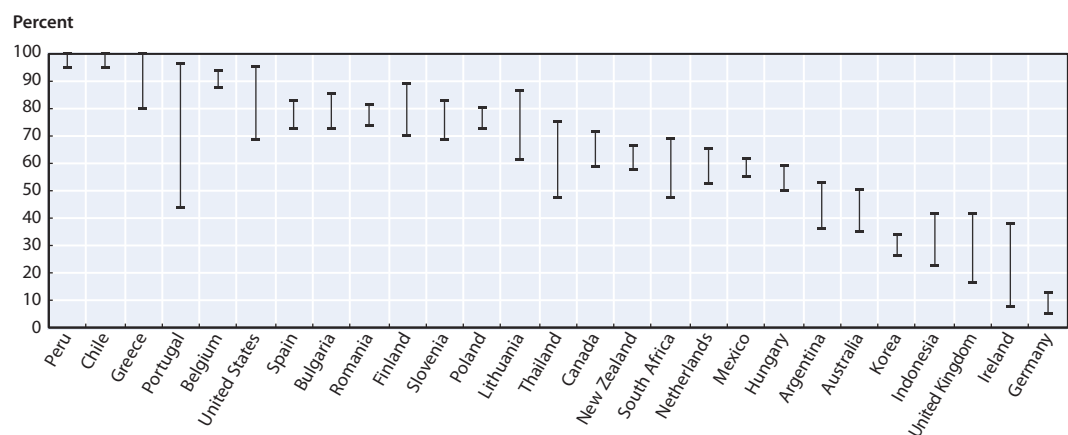
Note: With respect to Costa Rica, Croatia and Greece, tax arrears cases refer to the number of debtors.

Source: Table A.130 Tax arrears – Non-collectible arrears and tax arrears cases.

Most tax administrations have processes that prioritise the collection of “new arrears”. This is based on reasoning that those arrears are more likely to be paid by the taxpayer, and that timely interventions are more likely to influence future behaviour, ideally seeing the taxpayer either paying on time or making contact with the administration in the event of any future inability to pay. While slightly more than half of the administrations surveyed were able to provide some information on the age of debt by tax type, only 27 provided information across at least three main tax types.

Figure 3.15 shows for the year 2017 the range of arrears older than 12 months in relation to the total arrears across the main tax types. The figure illustrates two things. First, across jurisdictions there are large differences in the age of tax arrears. Second, for a number of jurisdictions the age of tax arrears varies significantly between the main tax types.

Figure 3.15. **Range of arrears older than 12 months in relation to total arrears by tax type, 2017**



StatLink  <http://dx.doi.org/10.1787/888933984136>

Note: The figure shows for each jurisdiction the range of arrears older than 12 months across the four tax types: PIT, CIT, Employer WHT and VAT. It only includes jurisdictions for which information was available for at least three tax types.

Source: Table D.22 Arrears older than 12 months in relation to total arrears by tax type.

3.5.4. Collection powers and their usage

The legislative framework includes provisions that enable tax officials to undertake certain actions in relation to the management of debt, the collection of amounts overdue and the enforcement of actions that can be taken against delinquent debtors. Figures 3.16 to 3.18 summarise this information for all 58 jurisdictions in the series, looking at the powers they use to assist in managing, collecting and enforcing the debt.

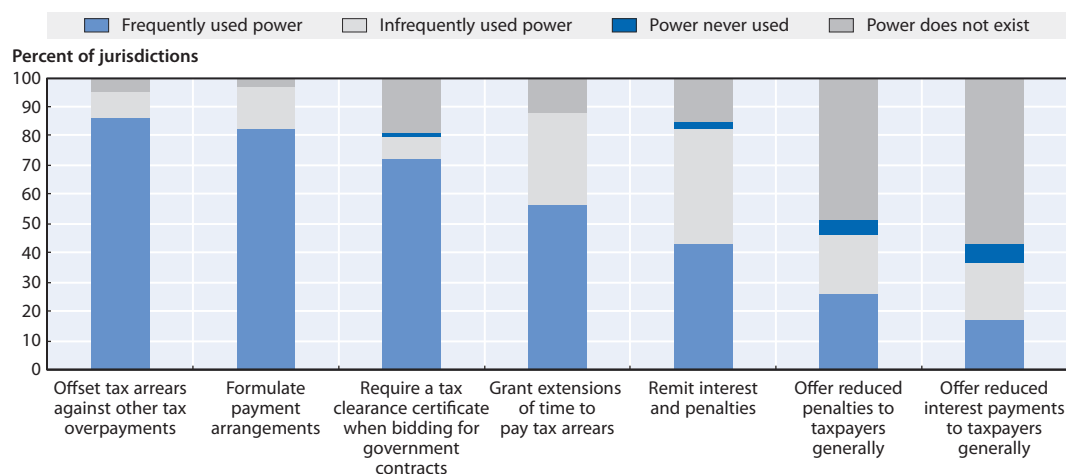
Powers to assist in managing debt

Most administrations report the frequent use of powers that allow them to offset tax arrears against overpayments from other tax types; formulate payment arrangements; and require tax clearances for businesses that contract with government.

Surprisingly however, around one third of administrations report infrequent use of the powers they have to remit interest and penalties or grant extension of time for payment. Accordingly administrations may wish to reflect on whether there is opportunity to

improve their effectiveness in this regard. While jurisdictions are evenly divided on policies that would allow their tax administration to offer reduced penalties and interest to taxpayers, between 50% and 60% of those with these powers report that they do not use them or use them only infrequently.

Figure 3.16. Powers to assist managing debt, 2017



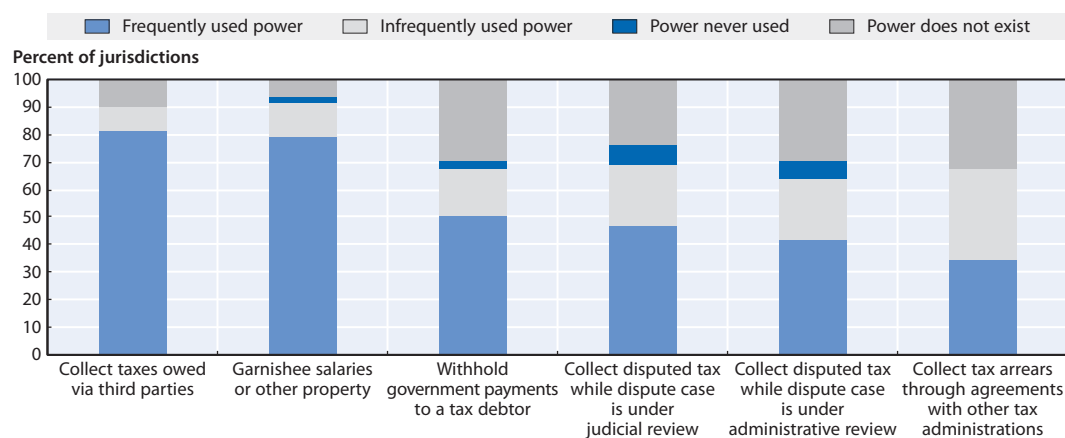
StatLink <http://dx.doi.org/10.1787/888933984155>

Sources: Tables A.125 to A.128 Tax arrears collection powers and their usage.

Powers to assist collection

Administrations report extensive use of third party collection via banks and employers and in the use of garnishee orders over salaries and property. Approximately 30% of administrations report non-use or infrequent use of powers to collect disputed taxes while a case is under judicial or administrative review. Around one-third of administrations report they do not have the power to withhold government payments due to delinquent debtors or the ability to use treaties or other agreements to have other jurisdictions undertake collection activity on their behalf.

Figure 3.17. Powers to assist collection, 2017



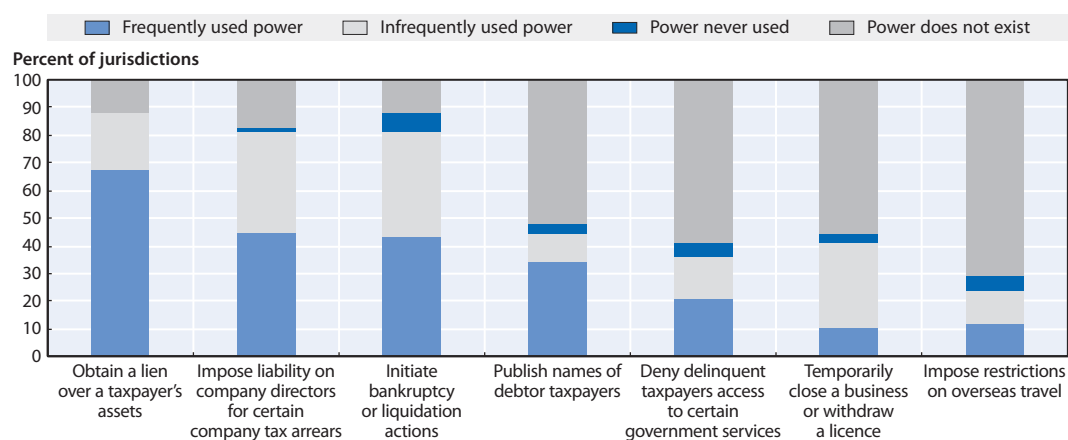
StatLink <http://dx.doi.org/10.1787/888933984174>

Sources: Tables A.125 to A.128 Tax arrears collection powers and their usage.

Powers to assist enforcement of debt

Generally jurisdictions reported lower use of enforcement powers than those for managing and collecting debts with 40% of administrations having those powers reporting non-use or infrequent use across all powers in this area.

Figure 3.18. **Powers to assist enforcement of debt, 2017**



StatLink <http://dx.doi.org/10.1787/888933984193>

Sources: Tables A.125 to A.128 Tax arrears collection powers and their usage.

While some administrations may consider powers to temporarily close a business, publish names of debtor taxpayers, restrict travel, or deny a delinquent taxpayer access to services as unsuitable for use in their jurisdiction, these may be powers others may consider useful to add to their armoury. For example, one half of administrations reported having the power to publish the names of tax debtors (with appropriate criteria and controls), and more than two-thirds report frequent use of these powers.

Box 3.10. Publication of names of large debtors

In *Spain*, the Spanish Tax Agency publishes a list of large debtors (outstanding debt over EUR 1 000 000) since 2015 on an annual basis in the Electronic Office. Three lists of large debtors have been disclosed until May 2018. The general aim is to fight against tax fraud, to enhance voluntary compliance and promote a higher tax awareness in society to act as a preventive and educative tool. The only data published are the debtors' names, TIN and global amount of outstanding debts and penalties (excluding deferment and instalment agreements).

Source: Agencia Estatal de Administración Tributaria (2019).

3.5.5. Preventive approaches

To maintain high levels of voluntary compliance and confidence in the tax system administrations must ensure that their debt collection approaches are both “fit for purpose” and in accord with community expectations of how the system will be administered. This means not only taking firm action against taxpayers that habitually non-comply, but also using “softer” more service-orientated approaches where taxpayers are willing to do the right thing but may not succeed. Increasingly, tax administrations are taking an end-to-end or systems view of their processes and researching the reasons why returns may not been filed or payments made. They are also using information about the taxpayer previous history, to identify patterns and/or anomalies.

Box 3.11. Preventive approaches

In *Australia*, the Australian Tax Office (ATO) uses a payment compliance analytical model that identifies when a client's bill is 'unlikely to be paid'. An SMS may then be issued to nudge prompt payment. In 2015-16 this approach resulted in just under AUD 1 billion being paid on time by clients who had a previous pattern of not paying or paying late. For the ATO, risk-based analytical models are increasingly driving client interactions. The Next Best Action Debt model, which is currently under development, uses data and analytics to develop a holistic view of the ATO's clients. This will enable the ATO to deliver debt treatment pathways that are tailored to an individual's circumstances. The Next Best Action model will improve payment on time, address outstanding liabilities and deliver an improved client experience. Purposeful First Action, which has been implemented as the first component of this model, focuses on improving the timeliness and outcomes of our initial interactions with clients once they are in debt.

In *Canada*, the CRA has implemented a SMARTLINKS tool to improve the accessibility of the CRA to taxpayers at a time when they are available to discuss resolving a debt. This tool allows taxpayers to arrange for a call from a Debt Management Call Centre agent at a time that is convenient for them. Adding a service like this one contributes to achieving improvements in service and encourages taxpayers to resolve their tax debts in a timely manner. The CRA has also developed an online payment calculator that is designed to assist taxpayers in formulating proposed payment arrangement options to help them meet their tax obligations. This tool calculates different payment proposals by factoring in the individual's current financial information and accumulated interest, to customise a payment arrangement that the taxpayer can maintain for the entire selected period. Based on website hits, the Payment Arrangement Calculator website was accessed 46 163 times between July 2017 and September 2018.

Sources: Australia – Australian Taxation Office (2019) and Canada – Canada Revenue Agency (2019).

3.5.6. Cross-border collection

As mentioned earlier, jurisdictions are divided over the use of powers to collect tax debts through tax treaties or agreements with other jurisdictions, with one-third reporting frequent use of this power, a second third using it infrequently or not at all, and the remaining third not having this power. With the effects of globalisation in tax set to continue, and in all likelihood increase, it may be timely for those administrations that do not have this power, to consider this approach.

Box 3.12. Locating overseas based student loan borrowers

In *New Zealand*, IRD is matching student loan records with the ATO to locate overseas based customers with the overall aim of reducing overdue student loan debt. Student loan customers living overseas make up 15% of the total student loan population but have 91% of the total overdue student loan debt. About 70% of all overseas-based customers with overdue repayments are based in Australia. New Zealand signed an arrangement with the ATO in October 2016 to share contact information on student loan customers. This has made it easier to locate and make contact with more customers. Several times a year information is exchanged for matching with the ATO. In 2017-18, records were sent for 128 930 customers for matching. Of these, matches were found for 85 147 customers. The number of overseas-based customers making repayments has increased 1.6% on the previous year.

Source: New Zealand – Inland Revenue Department (2019).

3.6. Disputes

Effective access to tax dispute processes are an essential feature of a good tax system. They safeguard taxpayer rights and ensure appropriate checks and balances exist on the exercising of tax powers by administrations. Improving dispute resolution processes and the timeliness of processing objections is something that many tax administrations are working on. Examples of this are included in Box 3.13 as well as Chapter 13 which describes innovations in dispute resolution from the perspective of the ATO.

Box 3.13. Improving timeliness in processing taxpayer objections

In *Canada*, following the release of the Auditor General’s Fall 2016 Report on Income Tax Objections, the CRA implemented a comprehensive action plan to address the recommendations made by both the Auditor General and the House of Commons’ Standing Committee on Public Accounts related to timeliness in processing taxpayer objections. A key initiative the CRA implemented in April 2017 is a triage function to streamline screening procedures for low-complexity income tax objections (some 55% of annual intake) and to initiate earlier contact with taxpayers. Through this change, objections are reviewed and any missing information is requested up-front to ensure that the files will be “work-ready” when they are assigned to an appeals officer. This triage function was subsequently extended to some workloads of medium-complexity objections in December 2017 and to objections filed by non-residents in March 2018. In many cases, the implementation of this triage initiative has resulted in taxpayers being contacted within 30 days to gather the specific documentation required to support their objections. This initiative contributed to the CRA’s success in improving its results in the resolution of low-complexity objections within 180 calendar days, from 61% in April 2017 to 81% by the end of March 2018.

Source: Canada – Canada Revenue Agency (2019).

All 58 jurisdictions provide taxpayers with the right to challenge assessments. Almost all report having an internal review mechanism in place and a large majority of administrations provide taxpayers with the option to seek an independent review by an external body. An independent review may help improving legal certainty for taxpayers. For those administrations that offer both review mechanisms, approximately three-quarters requiring the taxpayer to seek internal review before their case can be reviewed by an external body (see Table 3.11).

Table 3.11. **Dispute resolution review procedures, 2017**

	Options available for dispute resolution			Taxpayers must first pursue internal review where an internal review is permissible
	Internal review by tax administration	Independent review by external body	Independent review by higher appellate court	
No. of jurisdictions	57	46	56	41

Source: Table A.172 Dispute resolution review procedures and settlements.

Around 80% of administrations report that they have formal performance standards for the resolution of dispute cases, with close to 85% reporting this standard as being “mostly met” (see Table A.16).

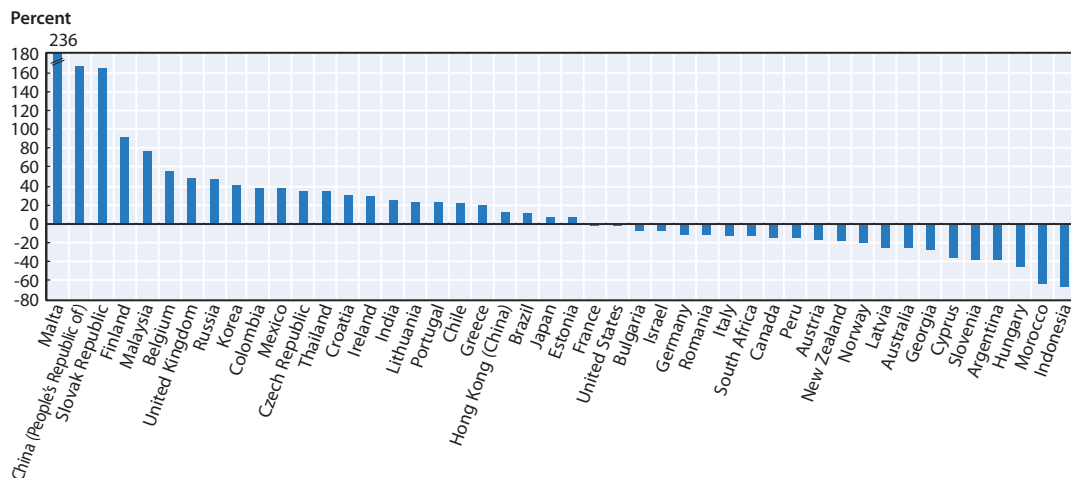
All survey respondents, with the exception of Costa Rica and Croatia, report the existence of a forum or fora, for formal resolution of disputes. One-third of the jurisdictions report having an Ombudsman service in addition to other dispute resolution processes (see Table A.173).

While tax administrations cannot generally control the timing of judicial processes, it is important to have sound reporting and monitoring of the tax dispute process to allow adjustments to be made where necessary. Since the 2015 TAS report, many administrations have been active in improving the level of management information available. As a result, this report contains performance information on approximately 80% of administrations.

Figures 3.19 and 3.20 display the changes in the number of review cases, for both internal reviews and independent reviews by external bodies, between the start of the 2016 year and the end of 2017. It should be noted, however, that the number of cases per jurisdiction vary significantly. This becomes more evident when looking at Figure 3.21, which highlights the wide differences between jurisdictions in the use of internal review procedures.

Differences of viewpoints between taxpayers and the tax administration on the correct amount of tax owed, including the facts relied upon or the interpretation of the law, are a normal part of tax administration. Reported information shows that where disputes do arise, most are resolved between the various parties without the need for litigation. Figure 3.22 reports the performance of administrations for cases decided upon by the courts. For some jurisdictions the number of cases decided is very low, as a result of which results can fluctuate significantly between years.

Figure 3.19. **Changes in the number of cases under internal review procedures between 2016 year-beginning and 2017 year-end**

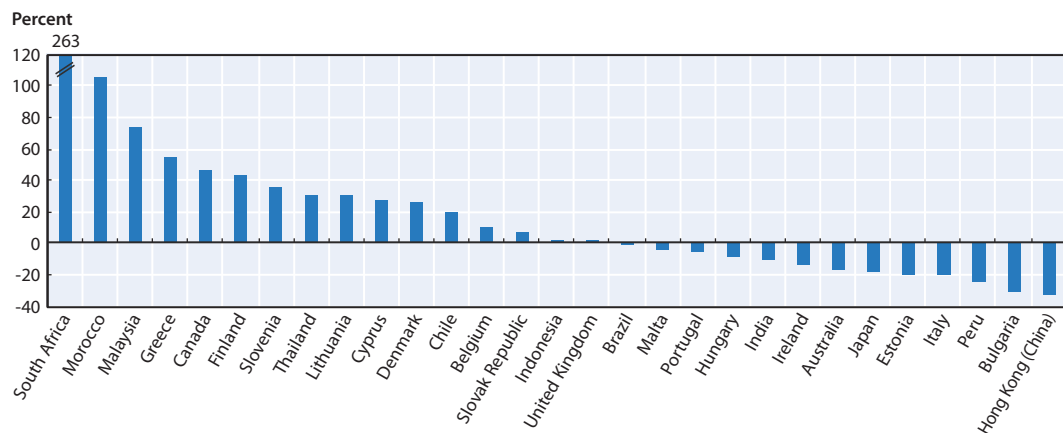


StatLink <http://dx.doi.org/10.1787/888933984212>

Note: For Argentina, the data only refers to the Option of Reconsideration (Recursos de Reconsideración). For Israel, the data only relates to income tax and value added tax.

Source: Table A.174 Details regarding internal review of disputes.

Figure 3.20. **Changes in the number of cases under independent review by external bodies between 2016 year-beginning and 2017 year-end**

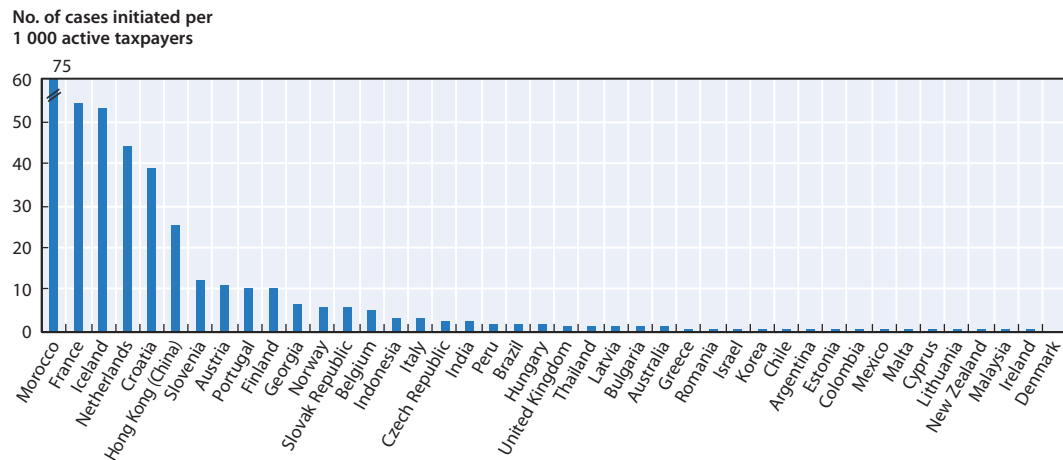


StatLink <http://dx.doi.org/10.1787/888933984231>

Note: For Denmark, the data relates to the entire revenue administration including customs, valuation of properties and vehicle, etc. For Ireland, in 2016 the Tax Appeals Commission (TAC) was established. Revenue transferred its appeals to TAC, who consolidated several of the cases. The opening balance relates to Revenue's position at the start of 2016. The closing balance 2017 relates to TAC's position.

Source: Table A.175 Details regarding independent reviews by external bodies.

Figure 3.21. **Number of internal review cases initiated per 1 000 active PIT and CIT taxpayers, 2017**

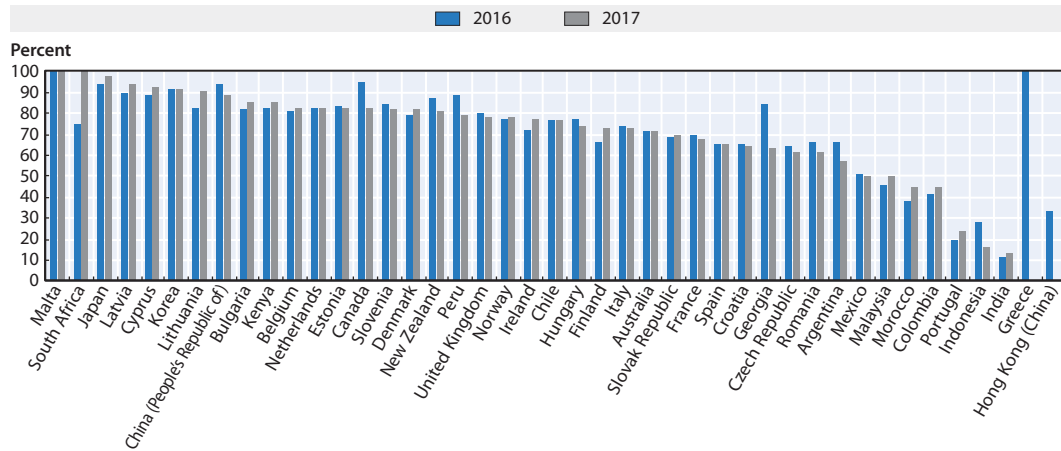


StatLink <http://dx.doi.org/10.1787/888933984250>

Note: For Korea the data relates to the year 2016.

Source: Table D.29 Administrative review cases & litigation.

Figure 3.22. Percentage of cases resolved in favour of the tax administration

StatLink <http://dx.doi.org/10.1787/888933984269>

Note: Cases resolved in favour of the administration means those cases where the administration has been successful in more than 50% of the issues contested in each case. For Belgium, the number of cases resolved during FY in favour of the administration refers to all cases where at least one issue was resolved in favour of the administration. For Denmark, the data relates to the entire revenue administration including customs, valuation of properties and vehicle, etc. For Israel, the data only relates to income tax and value added tax.

Source: Table D.29 Administrative review cases & litigation.

Box 3.14. Dispute Feedback Loop initiative

In **Canada**, the CRA implemented a Feedback Loop initiative to exchange relevant information within the Agency and strengthen ongoing co-operation between CRA branches. The Feedback Loop initiative recognises the value of understanding the reasons why objections are decided in favour of taxpayers, and serves to identify opportunities to resolve issues before an objection is filed, and improve future assessments. Since its inception, procedural changes have been implemented in some of the assessing programmes, and correspondence related to assessments has been reviewed and modified to improve clarity for taxpayers. Additionally, collaborative projects have been established with certain verification programmes to better identify and address reasons why taxpayers chose to file an objection, rather than use other more timely recourse options. The Feedback Loop is helping the Agency provide better services to Canadians and is identifying opportunities to resolve tax issues at the earliest opportunity.

Source: Canada – Canada Revenue Agency (2019).

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Chapter 4

Administrative, operational and organisational practices

This chapter looks at tax administrations' governance arrangements and the resources devoted to them. It also provides information on their workforce and sets out challenges administrations are managing in increasing their capability while managing a workforce that in general terms is reducing in size and on average is getting older.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

4.1. Introduction

This section is divided into three parts. The first part looks at governance arrangements. Like all government bodies, tax administrations are ultimately accountable to the citizens they serve. The framework within which this accountability operates varies between jurisdictions and is a result of various factors, including the institutional arrangements and government structures in place. The second part deals with the resources devoted to tax administration and how they are spent. The third, and final, part provides information on tax administrations' workforce and sets out challenges administrations are managing in increasing their capability while managing a workforce that in general terms is reducing in size and on average is getting older.

4.2. Governance arrangements for tax administrations

There are obviously a number of different governance arrangements in place in different tax administrations which will be equally robust in ordinary circumstances. Differences will be conditioned by the legislative, regulatory and judicial regime and shaped by the cultural, historical and political background. There is no single governance model.

The International Survey on Revenue Administration (ISORA) does include a number of questions that allow a high-level overview of the governance arrangements in place in participating jurisdictions and the following paragraphs provide a summary by looking at (i) institutional arrangements, (ii) autonomy of operations, (iii) governance structures and (iv) tax policy advice.

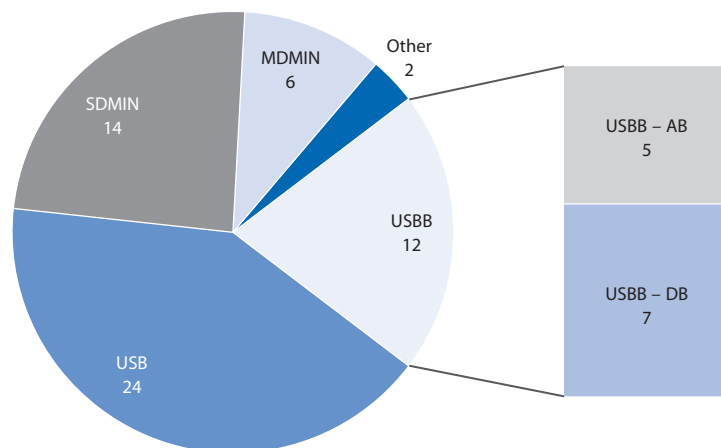
4.2.1. Institutional arrangements

Tax institutional arrangements are typically grouped around two general categories (i) directorate(s) or unit(s) within the Ministry of Finance (MOF) or its equivalent and (ii) unified semi-autonomous bodies. These can be broken down further into four sub-categories:

- A single directorate or unit within the MOF or its equivalent.
- Multiple directorates or units within the MOF or its equivalent.
- A unified semi-autonomous body, where tax administration and support functions are the responsibility of a Commissioner or Director General who reports to a government minister.
- A unified semi-autonomous body with a board, where tax administration and support functions are the responsibility of a Commissioner or Director General who reports to an oversight body/board of management that may include external members. The management board may either be decision-making or advisory.

There are some exceptions to the above categories. For example, in Switzerland, responsibility for tax administration largely occurs at a sub-national level and the “cantons” undertake collection activity on behalf of the federal government, and in Germany, the responsibility of collecting taxes is largely devolved to regional (i.e. Länder) administrations, while a relatively small central body exercises a high-level co-ordination role.

While there has not been any trend towards or away from the two main categories, it is interesting to note that the number of administrations with a management board has increased from ten (fiscal year 2015) to twelve (fiscal year 2017). The reason for this increase in use of management boards seems to be driven more by wider public sector accountabilities than tax specific approaches. Figure 4.1 summarises survey respondents by category.

Figure 4.1. **Institutional frameworks, 2017**StatLink  <http://dx.doi.org/10.1787/888933984288>

Source: Table A.7 Institutional framework.

4.2.2. *Autonomy of operations*

The range of autonomy given to a tax administration depends on a variety of factors. These include the general arrangement of government functions and powers, the state of development of a jurisdiction's public sector administration practices, as well as the institutional model adopted for tax administration. For government, the return to granting greater autonomy can be the prospect of increased efficiency and effectiveness, particularly in periods of change. With few exceptions, most tax administrations report that they operate with a degree of autonomy that allows them to appropriately manage their administrative functions (see Table 4.1).

Table 4.1. **Authority delegated to tax administrations, 2017**

	Design internal structure	Exercise discretion over operating budget	Exercise discretion over capital budget	Set performance standards
No. of jurisdictions	50	43	39	57

Source: Table A.14 Authority of the administration.

Autonomy can take many forms, but at its core involves the government setting objectives for the tax system (including tax legislation) as well as an accountability framework, while providing tax administrations with flexibility in the following areas to decide how to deliver those objectives:

- **Budget expenditure management** – including discretion to allocate/adjust budgeted administrative funds across functions to take account of changed circumstances or to meet new emerging priorities.
- **Organisation** – determining the internal organisational structure of the tax administration operations, including geographical location of tax offices.
- **Planning** – responsibility for formulating strategic and operational plans.
- **Performance standards** – discretion to set (in association with central bodies) administrative performance standards.

- **Personnel recruitment, development and remuneration** – the ability to set qualification standards for categories of recruits, recruit and dismiss staff (in accordance with public sector policies); negotiate remuneration levels in accordance with broader public sector-wide arrangements; and establish and operate training and development programmes.
- **Information and communication technology (ICT)** – authority to administer its own in-house ICT systems, or to outsource the provision of such services.

That said, the inability of 30% of the administrations surveyed to place staff within a remuneration range (see Table A.40) could be an issue of growing importance as administrations seek to recruit staff with skills beyond those traditionally engaged in the work of tax administration, in particular in data and technology driven areas.

Survey responses also indicate that a number of tax administrations have limited ability to re-allocate budgeted funds across operational functions to meet new priorities, or to design their own internal organisational structure, including their network of offices and geographical footprint (see Table 4.1).

Box 4.1. An “operational autonomy index”

In their 2019 edition of *Understanding Revenue Administration* the International Monetary Fund (IMF) constructed a number of indices using data from the ISORA 2016 in “an attempt to distill [a] large amount of data into a format suitable for monitoring changes over time and facilitating self-evaluation by a tax administration of its practices based on comparisons with other jurisdictions” (Crandall, Gavin and Masters, 2019^[1]).

One of those indices is a management and human resource autonomy index (here called the “operational autonomy index”). The 2018 version of the ISORA survey asks the same set of questions looking at four areas of management autonomy as well as eight areas of human resource autonomy which allows constructing this index for jurisdictions covered by this publication using 2017 data:

- **Management autonomy:** (i) discretion over operating budget, (ii) discretion over capital budget, (iii) possibility to establish performance standards, and (iv) determination of its own management structure
- **Human resource autonomy:** authority to (i) determine work requirements, (ii) make appointments of new staff, (iii) decide on promotion of existing staff, (iv) decide skills and qualifications required for appointment or promotion, (v) determine whether work is carried out by permanent staff or contractually, (vi) place staff within a salary range, (vii) terminate employment, and (viii) apply disciplinary sanctions (*Note: the last question was introduced in ISORA 2018*).

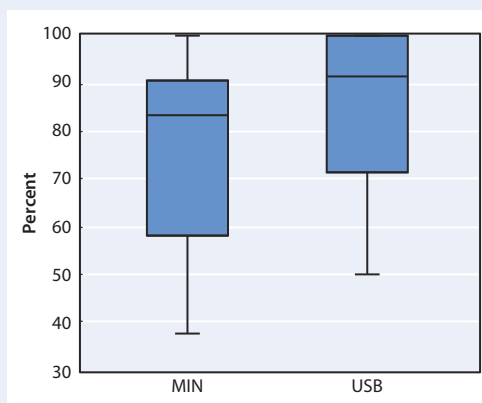
Each question required a “yes/no” response, where a “yes” response is considered a “good practice” (Crandall, Gavin and Masters, 2019^[1]). In relation to human resource autonomy, the “yes” response further distinguished between “yes, for all staff” and “yes, for some staff”. Summarising the responses by allocating one point for each “yes” and “yes, for all staff” answer as well as half a point for each “yes, for some staff” response allows obtaining a better understanding of the operational autonomy of tax administrations included in this report as regards management and human resource. Thus, the higher the number of “yes” responses, the higher the resulting score of the index.

Box 4.1. An “operational autonomy index” (continued)

Figure 4.2 provides this high-level overview of operational autonomy distinguishing between administrations that operate within a ministry (“MIN”) and those that operate as unified semi-autonomous bodies (USB), in form of a “Box and Whisker” chart. While generally the majority of administrations have a high degree of operational autonomy, there is a clear difference between both groups. Semiautonomous bodies (on the right) have – as expected – a higher degree of autonomy than administrations that operate within a ministry (on the left).

The “boxes” show the range of operational autonomy for administrations between the lower and upper quartile. The median (represented by the horizontal lines drawn through the “boxes”) for semiautonomous bodies is 92%, while it is 83% for administrations that operate within a ministry. The lines extending the boxes vertically (so called “whiskers”) indicate the range of operational autonomy for administrations that are outside the upper and lower quartiles.

Figure 4.2. **Operational autonomy index, 2017**



StatLink  <http://dx.doi.org/10.1787/888933984307>

Sources: OECD Secretariat calculation based on Tables A.14 Authority of the administration and A.40 Human resource autonomy.

4.2.3. Governance structures

Management boards

The most common form of external governance arrangement indicated by jurisdictions is the use of formal management boards, advisory bodies and external oversight bodies. Tax administrations reported that such bodies: execute general oversight; play a role in strategy development and planning; comment and provide advice on major operational policy reviews; and are involved in the sign-off of formal budgets and business plans. Importantly none appear to have a role in assisting the Commissioner or Director General in exercising any statutory tax powers, nor do they have access to taxpayer specific information.

As mentioned above, twelve administrations reported having a management board (see Figure 4.1). There does not appear to be any consensus around board size nor the representation of private sector representatives (see Table A.7):

- The average number of board members was just under 9, ranging from 4 in Peru to 16 in Spain.
- Half of the jurisdictions report having private sector representatives on their board and this representation ranges from 38% to 93% of total board size.

The relationship between the tax administration and the taxpayer

An important part of the governance of tax administrations comes from the set of taxpayer rights and obligations. This can help to frame other aspects of the governance framework within broader societal expectations for government services and provide a benchmark for press and civil society assessments. Public reporting against appropriate elements of taxpayer rights (such as complaints handling, quality of service etc.) can help in giving visibility and credibility to such arrangements. This is often done through the publication of annual reports.

Table 4.2. Taxpayer's rights and obligations

Right	Obligation
To be informed, assisted, and heard	To be honest
Of appeal	To be co-operative
To pay no more than the correct amount of tax	To provide accurate information and documents on time
Certainty	To keep records
Privacy	To pay taxes on time
Confidentiality and secrecy	

The vast majority of jurisdictions participating in this report (88%) have legislation or administrative procedures in place governing taxpayers' rights and obligations (see Table A.123). There are differences in the scope of applicability of taxpayer's rights and obligations. For example, some jurisdictions only codify taxpayer's rights, not their obligations, while others apply specific charters to different taxes or only deal with taxpayer's rights in case of an audit.

In addition, in almost all reporting tax administrations there is a special body for dealing with taxpayers' complaints (see Table A.124). While the administrative approach to taxpayer rights tends to be more flexible and service-orientated, the codified system has the force of law and in some circumstances may be considered to be the more robust approach.

Box 4.2. Managing taxpayer complaints

In *Spain*, the Spanish Tax Agency (AEAT) implemented 15 years ago a system for citizens to report complaints and signs of tax fraud (whistle blowing) electronically through AEAT's website. However, the use of such a tool was limited due to the obligation to fully identify the person reporting (with an electronic signature). Since 2017 a new electronic procedure has been launched aiming to increase the use of e-reporting of complaints. In order to do this, alternative methods apart from e-signature are admitted, the e-reporting has been simplified, tailored templates have been created (for example templates for reporting irregularities in invoices, the use of sales suppression software, issues with electronic commerce and immovable property). The internal management procedure of complaints has also been automatised.

Source: Spain – Agencia Estatal de Administración Tributaria (2019).

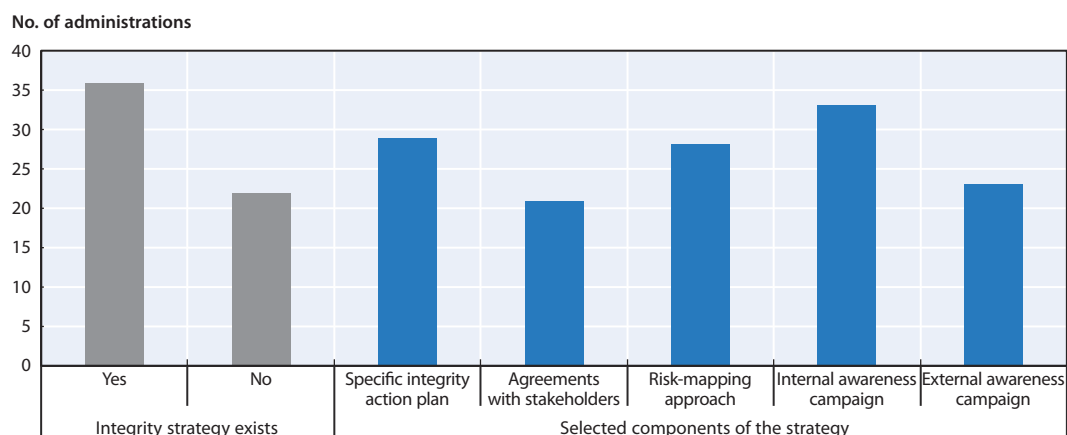
External audit and other oversight features

Almost all administrations (90%) are subject to a degree of oversight by a public accounts committee (or equivalent) that assesses their results and a budgetary review process that monitors their spending (see Table A.18). Results are typically reviewed and verified by a national audit function. Parliamentary committees will also usually have the capacity to review performance against output metrics, as well as more strategic goals.

Common oversight features include:

- **Publication of an annual report:** almost all administrations publish an annual report (see Table A.18).
- **Periodic assessments against agreed metrics:** 49 out of 58 participating jurisdictions prepare a formal set of service delivery standards, 46 make the set of delivery standards public and 32 publish the results (see Table A.17).
- **Systems of risk oversight:** The vast majority of administrations has formal approaches in place for identifying, assessing and prioritising key compliance risks. However, only 30% make the identified risks public regularly and around 40% regularly publish reports of outcomes in addressing key compliance risks (see Table A.20). In addition, most administrations report having enterprise-wide risk policies in place (see Table A.18).
- **Management and system of internal control and code of conduct:** 95% of tax administrations covered in the publication have formal internal assurance mechanisms (see Table A.18).
- **Ensuring integrity:** In addition to internal audit functions, administrations generally have robust internal controls built into their IT framework to detect and prevent internal fraud. This is supported through clear human resource (HR) policies to deal with employee misconduct. In this respect, 95% of the administrations report having a public service wide code of conduct; and close to 90% report having their own code of conduct. Further, close to two-thirds of the administrations report having in place an integrity strategy, which typically includes internal awareness campaigns and specific integrity action plans (see Figure 4.3 and Table A.19).

Figure 4.3. Integrity strategy, 2017



StatLink  <http://dx.doi.org/10.1787/888933984326>

Source: Table A.19 Selected management practices – Code of conduct, integrity.

Box 4.3. United States – Risk Acceptance Form and Tool

The Internal Revenue Service (IRS) created and regularly uses a tool called the Risk Acceptance Form and Tool (RAFT). The RAFT provides a framework for documenting the rationale and risks associated with significant decisions made at the IRS. It helps the user think through the risks associated with different options, prompts the user to consider what other groups are impacted by the decision and encourages collaboration with impacted stakeholders.

There are three parties typically involved in the development of a RAFT; the preparer, reviewer(s) and approver(s). Preparers gather key information and complete the form, generally at the request of a key decision-maker. Reviewers are generally leaders of other IRS offices impacted by the decision; they are not the decision-makers. They evaluate the rationale, risks, and proposed decision and provide input, as needed, for use by the decision-maker(s) who ultimately serves as the approver(s). Approver(s) must possess the authority to approve the documented decision and accept the associated risks.

Use of the RAFT has had a positive impact on the culture by making the organisation more deliberate about identifying and evaluating the risks associated with the different options considered during the decision-making process. It has resulted in more comprehensive documentation of the significant decisions made at the IRS and the risks accepted as a result. The RAFT is an important tool, however, it is one component that aligns with a broader, more comprehensive Enterprise Risk Management programme at the IRS.

Source: United States – Internal Revenue Service (2019).

Given that the ISORA survey contains a large number of questions related to governance structures it is possible to construct an overview view of public accountability of tax administrations included in this publication. Such a “Public Accountability Index” is described in Box 4.4.

Box 4.4. The “public accountability index”

Similar to the operational autonomy index (see Box 4.1), the IMF included in their 2019 publication a “public accountability index” based on twelve questions included in ISORA 2016 (Crandall, Gavin and Masters, 2019^[1]). This index can also be constructed using the 2018 version of the ISORA survey which asks the same set of questions as well as additional questions looking at integrity issues, code of conduct and internal audit functions. The 15 questions included in the public accountability index below, constructed for jurisdictions covered by this publication using 2017 data, cover the following areas:

- **Publication of documents:** Does the administration publish (i) the strategic plan, (ii) the annual business/operational plan, (iii) the formal set of service delivery standards, (iv) the results achieved vis-à-vis the formal service delivery standards, (v) the annual report, (vi) the key compliance risks, (vii) reports of outcomes in addressing key compliance risks, (viii) taxpayer satisfaction survey results, and (ix) tax gap estimates.
- **Existence of oversight features:** Does the administration have (i) an external auditor, (ii) formal internal assurance mechanisms, (iii) a code of conduct, (iv) specific legislation dealing with integrity issues, (v) documents that formally set out taxpayer rights, and (vi) specific mechanisms for dealing with complaints.

Box 4.4. The “public accountability index” (continued)

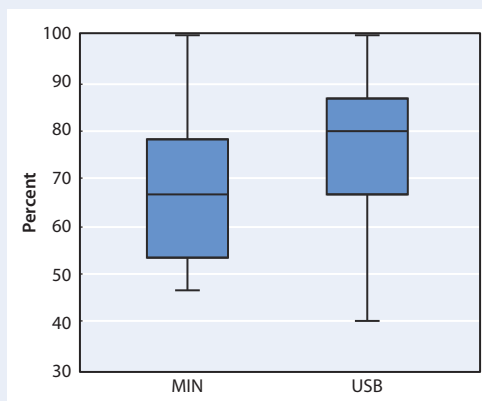
The questions required administrations to answer “yes” or “no”. Questions related to the existence of a code of conduct, the publication of taxpayer satisfaction survey results, the existence of specific mechanisms dealing with complaints, and the publication of tax gap estimates comprise of several sub-questions. If the response to either sub-question was “yes,” then the overall answer was taken to be “yes”.

Summarising the responses by allocating one point for each “yes” allows obtaining a high level overview of the public accountability of tax administrations included in this report. The more number of “yes” responses, the higher the resulting score of the index.

Figure 4.4 provides this high-level overview distinguishing between administrations that operate within a ministry (“MIN”) and those that operate as unified semi-autonomous bodies (USB), in form of a “Box and Whisker” chart. The chart shows a clear difference between both groups. Semiautonomous bodies (on the right) show generally a greater public accountability than administrations that operate within a ministry (on the left).

The “boxes” show the range of public accountability for administrations between the lower and upper quartile. The median (represented by the horizontal lines drawn through the “boxes”) for semiautonomous bodies is 80%, while it is 67% for administrations that operate within a ministry. The lines extending the boxes vertically (so called “whiskers”) indicate the range of operational autonomy for administrations that are outside the upper and lower quartiles. With respect to semiautonomous bodies, the “whiskers” show a much larger range of public accountability.

Figure 4.4. Public Accountability Index, 2017



StatLink  <http://dx.doi.org/10.1787/888933984345>

Sources: OECD Secretariat calculations based on Tables A.17 to A.20 Selected management practices, A.114 Taxpayer satisfaction, A.123 Taxpayer rights, A.124 Taxpayer complaints and A.146 Tax gap

4.2.4. Policy advice

All but seven Tax Administration Series (TAS) participating jurisdictions report that their tax administrations provide tax policy advice. Of those 90% report providing advice on broad legislative issues, while slightly more than 90% report providing advice on administrative issues (see Table A.13).

The majority of jurisdictions providing advice on legislative issues report that this is provided jointly with the main policy institutions advising the government, with only

five administrations report being the main provider of tax policy advice. The crucial issue is perhaps not which organisation is providing tax policy advice, but rather on such advice being based on a robust policy development and feedback process covering the various aspects of revenue collection.

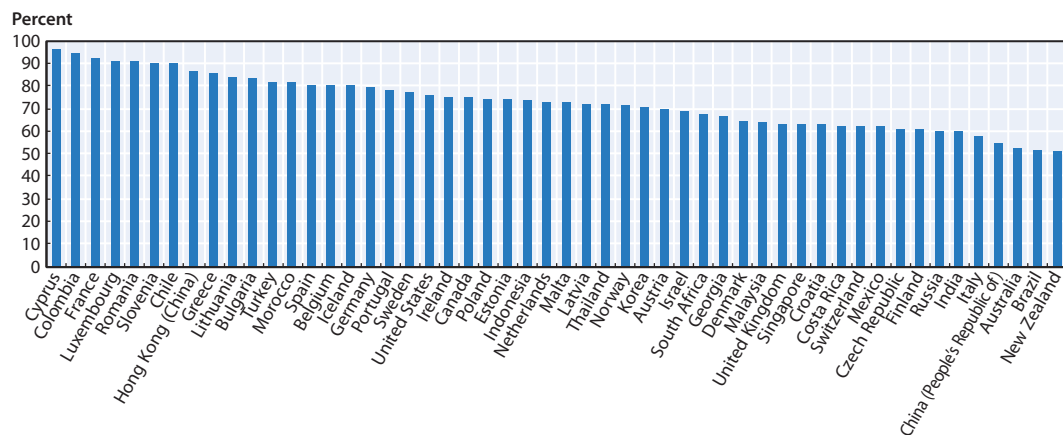
For those that provide advice on administrative issues, 80% provide such advice before and after enactment of the legislation, while of the remaining administrations seven provide advice before the enactment of the legislation and only one after enactment of the legislation.

4.3. Budget and information and communication technology

4.3.1. Operating and capital expenditures

The overall level of resources devoted to tax administration is an important and topical issue for most governments, external observers, and of course tax administrations themselves. While the budgetary approaches differ, in most jurisdictions the budget allocated is tied to the delivery of performance outputs which are outlined in an annual business plan (see Table A.17). In a small number of jurisdictions (Argentina, Bulgaria, Italy, Kenya, Peru and Spain), the annual budget of the tax administration (or a part of it) is based on a “percentage-of-revenue-collected” formula (see Table A.33). For example, in Spain, an additional 5% of the gross collection obtained due to its own verification proceedings and collection and enforcement actions is added to the general budget of the Tax Agency. The General Budget Law each year sets a limit for this allocation.

Figure 4.5. Salary cost as a percent of total operating budget, 2017



StatLink  <http://dx.doi.org/10.1787/888933984364>

Notes: For Poland the figure relates to the year 2016.

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: Table D.3 Resource ratios.

When looking at the budget figures, three-quarters of tax administrations in the survey report an increase of their operational expenditure between the years 2016 and 2017 (see Table A.31). As already observed in the 2017 edition of this report, the picture changes however, when compared to jurisdiction gross domestic products. Against this measure two-thirds of the administrations faced, in relative terms, declining operational expenditures. Due to changes in the underlying survey questions related to budget, it is not possible to analyse the evolution of operational expenditure since 2014.

The largest reported component of tax administration operating budgets is for the employment of staff, with salary alone accounting for on average 73% of operating budgets annually (see Figure 4.5). Another important component of operating expenditure is ICT. On average this accounts for 10% of operating expenditure, with a few countries reporting ICT expenditure equalling one quarter of their total operating expenditure (see Table D.3).

Capital expenditure makes-up about 4% of total expenditure but varies significantly between administrations. A few administrations report figures below 0.5% while others report figures above 10% (see Tables A.31 and A.32). In about two-thirds of those able to provide information, ICT accounts for more than 50% of total capital expenditure.

Box 4.5. Finding cost reductions

In *Brazil*, in order to dispose of its own movable property, the Federal Revenue Service of Brazil (RFB) adapted the Electronic Auction System, a tool which had previously been used successfully in the disposal of seized goods. The simplification, security, and cost reduction provided by the use of the tool provided a transparent and effective way of selling RFB's assets.

In *Finland*, in the beginning of 2019, the Finnish Tax Administration (FTA) created a centralised service for preparation of projects. The service is targeted especially to key people who are responsible for development in the FTA. The service will take a draft idea or concept and turn it into a project proposal with clear targets, tasks, resources and timeline. This proposal is taken to a development steering group for decision making. The service is triggered by a virtual “button” in the FTA's intranet that anybody can push and propose an idea. New ideas are reviewed weekly and business owners can decide whether or not to take forward a project, which is first scoped by the steering group. The value is in assisting with the necessary bureaucracy of project preparation, resource planning and so on, making it easier for the business owner to concentrate on what actually should be done. The service has received positive feedback and has improved the cycle of preparation and decision making significantly through a visible and transparent process.

In *Singapore*, the Inland Revenue Authority of Singapore (IRAS) started experimenting with Robotic Process Automation (RPA) tools to improve staff productivity, by automating selected manual business or operational processes without the need to enhance existing IT systems. Positioned as an End User Computing tool, the aim is to eventually drive enterprise-level adoption of RPA so that business users can self-help in automating their work processes, with IT providing the necessary coaching and support. IRAS has successfully completed a small-scale pilot in 2017, and is in the midst of identifying further suitable use cases as it seeks to expand the use of RPA tools enterprise-wide. To develop RPA competencies within the organisation, IRAS had also formed a Community of Interest and set up a small RPA Collaboration Lab to better facilitate experiential learning, sharing and collaborative development.

Box 4.5. Finding cost reductions (*continued*)

In the **United Kingdom**, Her Majesty's Revenue and Customs (HMRC) has dedicated compliance officers who ensure that taxpayers are properly meeting their tax commitments. In the past, the compliance caseworker role included spending a significant amount of time manually uploading documents to HMRC's casework IT system. This process was taking valuable caseworker time. To provide caseworkers with more time to review cases, a RPA has been used. The process uses a dedicated secure document store where the caseworkers place their files for each case. The RPA software then retrieves the documents from this location and completes the upload into the HMRC casework IT System. This automation has freed up compliance officers' time to allow them to focus on handling more customer cases and improve HMRC's ability to secure revenue. Since the automation started, it has successfully completed over 265 000 document uploads. This has freed up at least 590 days of caseworker time so far. The plan is to increase the number of teams that this automation supports, freeing up even more caseworker time over the coming months.

Sources: Brazil – Federal Revenue Service of Brazil (2019), Finland – Finnish Tax Administration (2019), Singapore – Inland Revenue Authority of Singapore (2019) and the United Kingdom – Her Majesty's Revenue and Customs (2019).

4.3.2. Cost of collection

It has become a fairly common practice for tax administrations to compute and publish (e.g. in their annual reports) a “cost of collection” ratio as a surrogate measure of their efficiency/effectiveness. The ratio is computed by comparing the annual expenditure of a tax administration, with the net revenue collected over the course of a fiscal year. As the ratio is derived from a comparison of inputs (i.e. administrative costs) to outputs (i.e. revenue collections) it should over time reflect movements in relative efficiency and/or effectiveness. Given the many similarities in the taxes administered by tax administrations, there has been a natural tendency by observers to make comparisons of “cost of collection” ratios across jurisdictions.

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. Further, international comparisons are difficult to make given a range of variables to be taken into account. Examples of such factors and variables include macroeconomic changes as well as differences in revenue types administered and are further elaborated in Box 4.6.

While – as a result of those issues – the “cost of collection” ratio was discontinued in the 2017 edition of the report, it is included again in this edition. The reason for this is two-fold:

1. The “cost of collection” ratio is useful for administrations to ***track as a domestic measure*** as it allows them to see the trend over time of their work to collect revenue and, as pointed out in Box 4.6, they should be able to account for the factors that can influence the ratio; and
2. The inclusion of the “cost of collection” ratio and the accompanying comments can serve as a prominent reminder to stakeholders of the ***difficulties and challenges in using the “cost of collection” ratio for international comparison***.

Box 4.6. Difficulties and challenges in using 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 tax administration's efficiency and/or effectiveness and which render this statistic unreliable in the international context:

- **Changes in tax policy:** Tax policy changes 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.
- **Abnormal expenditure of the tax administration:** From time to time, a tax administration 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.
- **Changes in the scope of revenues collected:** From time to time, governments decide to shift responsibility for the collection of particular revenues from one agency to another which may impact the cost/revenue relationship.

From a fully domestic perspective, an administration may be able to account for those factors by making corresponding adjustments to its cost or collected revenue. This makes tracking the “cost of collection” ratio a helpful measure to see the trend over time of the administration's work to collect revenue. If it were gathered by tax type, it may also help inform policy choices around how particular taxes may be administered and collected.

However, its usefulness with respect to international comparison is very limited. While administrations may be able to account for the above factors from a domestic perspective, it will be difficult to do this at an international level as such analysis would have to consider:

- **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 jurisdictions and low-taxing jurisdictions are hardly realistic given their widely varying tax burdens.
- **Differences in the range and nature of revenues administered:** There are a number of differences that can arise here. In some jurisdictions, more than one major tax authority may operate at the national level, or taxes at the federal level are predominantly of a direct tax nature, while indirect taxes are administered largely by separate regional/state authorities. In other jurisdictions, one national authority will collect taxes for all levels of government, i.e. federal, regional and local governments. Similar issues arise in relation to the collection of social insurance contributions.
- **Differences in the range of functions undertaken:** The range of functions undertaken by tax administrations can vary from jurisdiction to jurisdiction. For example, in some jurisdictions the tax administration is also responsible for carrying out activities not directly related to tax administration (e.g. the administration of certain welfare benefits), while in others some tax-related functions are not carried out by the tax

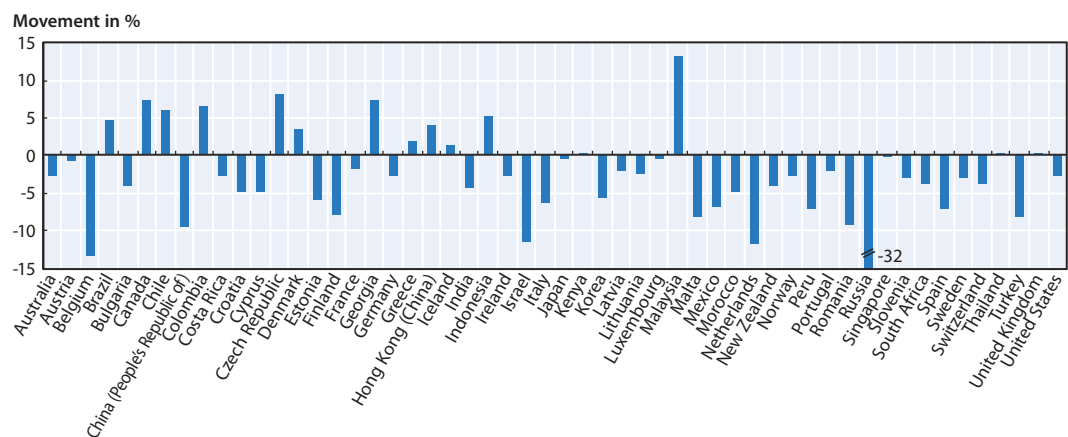
Box 4.6. Difficulties and challenges in using the “cost of collection” ratio as an indicator of efficiency and/or effectiveness *(continued)*

administration (e.g. enforced debt collections). Further, differences in society views may influence what an administration does, how it can operate and what services it has to offer. Particularly the latter may have significant impact on the cost/revenue relationship.

Finally, it should be pointed out that the “cost of collection” ratio ignores the revenue potential of a tax system, i.e. the difference between the amount of tax actually collected and the maximum potential revenue. This is particularly relevant in the context of international comparisons – administrations with similar cost/revenue ratios can be poles apart in terms of their relative effectiveness.

Figure 4.6 illustrates the movement in the “cost of collection” ratios for the administrations included in this report. It shows that almost three-quarters of the administrations had decreasing ratios. However, as mentioned above, the chart and the underlying figures have to be interpreted with care. It will be interesting to see how this evolves over time.

Figure 4.6. Movement in “cost of collection” ratios between 2016 and 2017



StatLink <http://dx.doi.org/10.1787/888933984383>

Note: When interpreting this chart the factors mentioned in Box 4.6 should be taken into account. For Russia, the significant change in the “cost of collection” ratio between 2016 and 2017 is largely a result of the Federal Tax Service administering social security contributions since 2017.

Source: Table D.3 Resource ratios.

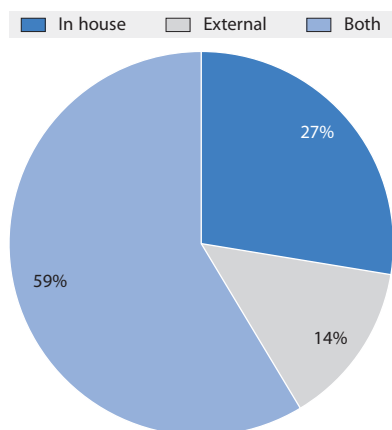
4.3.3. Information and communication technology

On average ICT expenditure accounts for about 10% of operating expenditure (see above). However, reported levels of ICT expenditure do vary enormously between administrations. For those administrations able to provide ICT-related cost, one third reported an annual operating ICT expenditure exceeding 10% of the administration’s total operating expenditure in 2017 and another third reported figures between 5% and 10% (see

Table D.3). While some of this variation can be explained by the different sourcing and business approaches, some cannot and point, at least on the surface, to expenditure levels that maybe somewhat low to support the rapidly changing electronic and digital services administrations are increasingly being called upon to provide.

Most tax administrations still report in-house development of bespoke ICT solutions, although the majority does so via shared arrangements between themselves and external suppliers and developers (see Figure 4.7). The number of administrations reporting the use of commercial-off-the-shelf (COTS) solutions for their core infrastructure is less common (see Figure 4.8) than those using custom-built solutions which by their nature tend to be regarded as “fit for purpose”. With respect to implementing a COTS solution, the 2019 OECD publication *Introducing a Commercial Off-The-Shelf Software Solution* (OECD, 2019^[2]) describes the Finnish Tax Administrations experience in replacing around 200 different individual software applications with a COTS product.

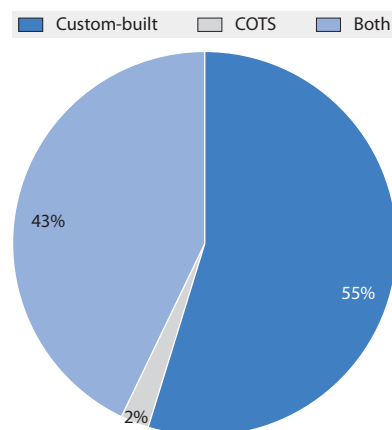
Figure 4.7. Development of primary ICT solutions, 2015



StatLink  <http://dx.doi.org/10.1787/888933984402>

Source: Table A.25 Information and communication technology (ICT) solutions.

Figure 4.8. ICT from external/both: Product type, 2017



StatLink  <http://dx.doi.org/10.1787/888933984421>

Source: Table A.25 Information and communication technology (ICT) solutions

Box 4.7. Improving IT security

In **Finland**, the tax administration started a pilot project called “Bug Bounty” targeted at MyTax e-service. A bug bounty is meant for recognition and compensation for reporting bugs, especially those pertaining to exploits and vulnerabilities. It is a method where crowdsourced testing is used to find software vulnerabilities. Bug bounty allow the developers to discover and resolve bugs before the general public is aware of them, preventing incidents of widespread abuse. The project started small and extended its scope gradually, gaining a lot of publicity due to active communications. After the pilot project, bug bounty testing was taken into normal operations and will be extended to other applications in future. It has aroused much interest and many agencies are planning to launch their own programmes in future.

Source: Finland – Finnish Tax Administration (2019).

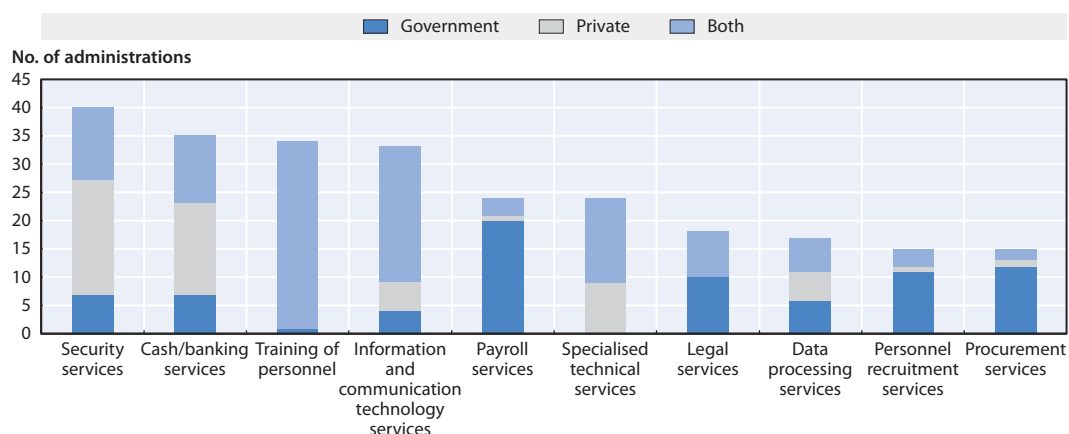
4.3.4. Outsourcing

A large number of tax administrations are reporting outsourcing arrangements to support business delivery and manage costs and improve efficiency. Using third parties to deliver services required for the conduct of tax administration operations is nothing new. Many administrations have previously reported arrangements for outsourcing ICT, tax payment collection and processing and debt collection for some time.

“Shared services” approaches across government, or arrangements between a tax administration and other government bodies continue to be used as these centres of expertise reduce duplication and create economies of scale. They also allow governments to utilise excess capacity, lower total delivery costs, and increase resilience and flexibility, allowing agencies to more easily scale-up or down based on demand.

Figure 4.9 reports those common administrative functions or operations that are predominantly outsourced. Not surprisingly, the majority of participating tax administrations have predominantly outsourced security services (69% of the administrations), cash/banking services (60%), training of personnel (59%) and ICT services (57%). There is a large gap between these four functions and the other commonly outsourced functions. While the private sector is often the preferred option for security and cash/banking services, other parts of the government are typically used for payroll services, personnel recruitment and procurement services. Further information on outsourced functions appears in Tables A.21 to A.24. It should be noted that the difference between what was reported in the 2017 edition (OECD, 2017^[3]) is due to a change in the underlying survey question which now only looks at services that are predominantly outsourced.

Figure 4.9. **Most common administrative functions/operations that are predominantly outsourced, 2017**



StatLink <http://dx.doi.org/10.1787/888933984440>

Sources: Tables A.21 to A.24 Outsourcing of tax administration functions.

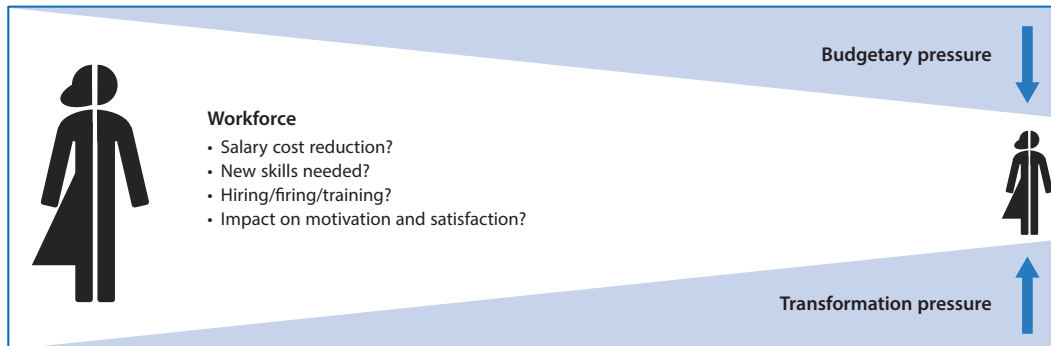
4.4. Workforce

The administrations included in this report employ approximately 1.5 million staff (see Table A.28) making the effective and efficient management of workforce critical to good tax administration. Having a competent, professional, productive and adaptable workforce is at the heart of most administrations HR planning. With staff costs averaging more than 70% of operating expenditures, any budget change invariably impacts on staff numbers.

With many administrations continuing to report major business change, the workforces focusing on “core” tax functions are subject to further reduction.

The “double pressure” created from reduced budgets and technology change, mentioned in the 2017 edition, continues to be a significant management issue for most administrations. The challenge is compounded for some which, due to contract restrictions or government mandates, find it difficult to strategically down-size their operations other than through the non-replacement of staff essentially leaving of their own accord.

Figure 4.10. **Double pressure on workforce**



Source: OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies* https://doi.org/10.1787/tax_admin-2017-en.

Box 4.8. **Supporting staff**

In **Australia**, Dynamic Scripting supports the Australian Tax Office’s (ATO) frontline personnel as they handle telephony queries from clients in relation to complex income tax account adjustments. The system is designed to offer clients an improved client experience by providing staff with fast and accurate information as it relates to the client and their enquiry. When staff enter an identifier into the search field, the Dynamic Scripting system interrogates information stored across numerous sources to deliver client-specific data as it relates to their enquiry. This is then combined with situational scripting templates to convert the data into a client-specific explanation that the operative can read to the client. The benefits for both the client and staff experience delivered by Dynamic Scripting include:

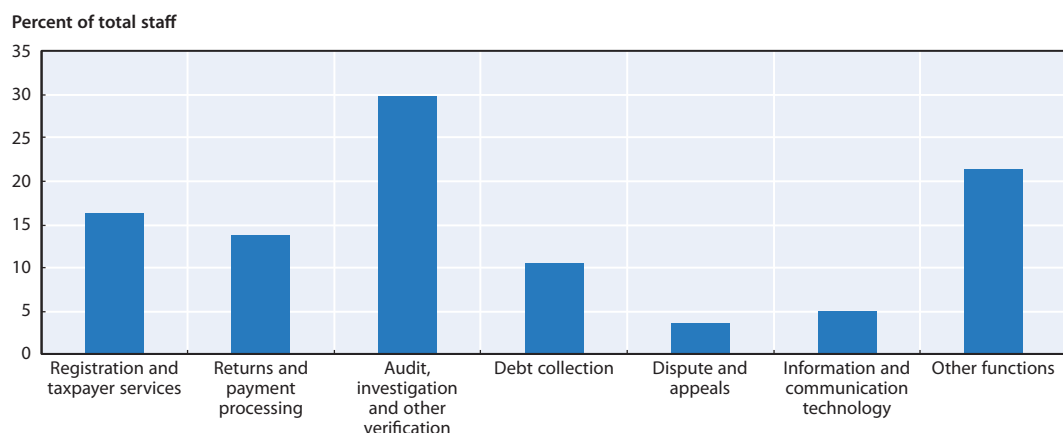
- The reduction of physical effort by operatives to interrogate disparate systems to retrieve data.
- The alleviation of mental effort required for staff to organise data and to correctly apply process and procedural information to transform this data into meaningful and accessible information for the client.
- Significant reductions in the opportunity for operator error. The automation of client-specific scripts simultaneously equips operatives with confidence while ensuring that clients are provided with accurate information.
- Call handle times are lessened via the removal of manual data collation and interrogation processes.

Source: Australia – Australian Taxation Office (2019).

4.4.1. Staff usage by function

Figure 4.11 provides average allocation of staff resources (expressed in full-time equivalents) across seven functional groupings used to categorise tax administration operations. While the detailed data for each administration in Table D.4 shows for each function a significant spread of values and a number of outliers, generally the “audit, investigation and other verification” function is the most resource intensive, employing on average 30% of staff.

Figure 4.11. Staff usage by function, 2017



StatLink  <http://dx.doi.org/10.1787/888933984459>

Note: Excluding administrations that were unable to provide the break-down for all functions.

Source: OECD Secretariat calculations based on Table D.4 Staff allocation by function.

4.4.2. Staff metrics

The survey also gathered key data concerning the age profiles, length of service, gender distribution and educational qualifications of permanent staff of the total administration (i.e. including both tax and customs):¹ see Tables D.6 to D.9 and Tables A.34 to A.39.

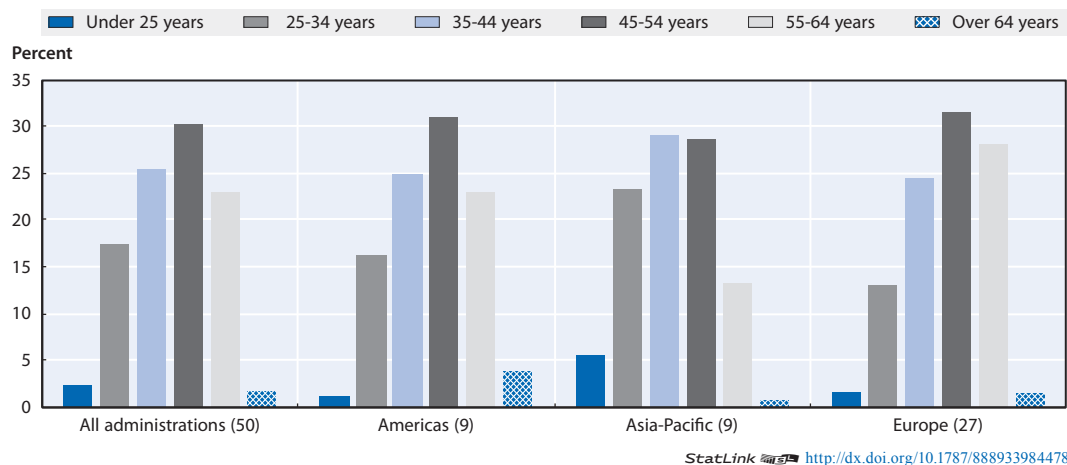
Age profiles

While there are significant variations between the age profiles of tax administration staff (see Table D.7), it is interesting to see that there are also differences when viewed across different geographical groupings. This may be the result of a complex mix of cultural, economic, and sociological factors (e.g. economic maturity, recruitment, remuneration, and retirement policies).

Figure 4.12 illustrates that staff are generally younger in Asian-Pacific administrations where, on average, close to 30% of staff are below 35 years of age, whereas in the Americas and Europe this percentage drops to 17% and 15% respectively. At the same time, administrations in the Americas and Europe have a large percentage of staff older than 54 years.

Looking at the jurisdiction specific data shown in Figure 4.13 it can be seen that the percentage of staff older than 54 years grew in two-thirds of the administration able to provide data for the period 2014 to 2017. This confirms the observation made in TAS 2017 that in many administrations the average age of staff is at a level where it is already or soon will create challenges to manage (OECD, 2017_[3]). To further complicate this challenge, most administrations are facing on-going organisational change with a need to acquire the new skills to operate a heavily data driven modern tax administration while retaining key intellectual knowledge.

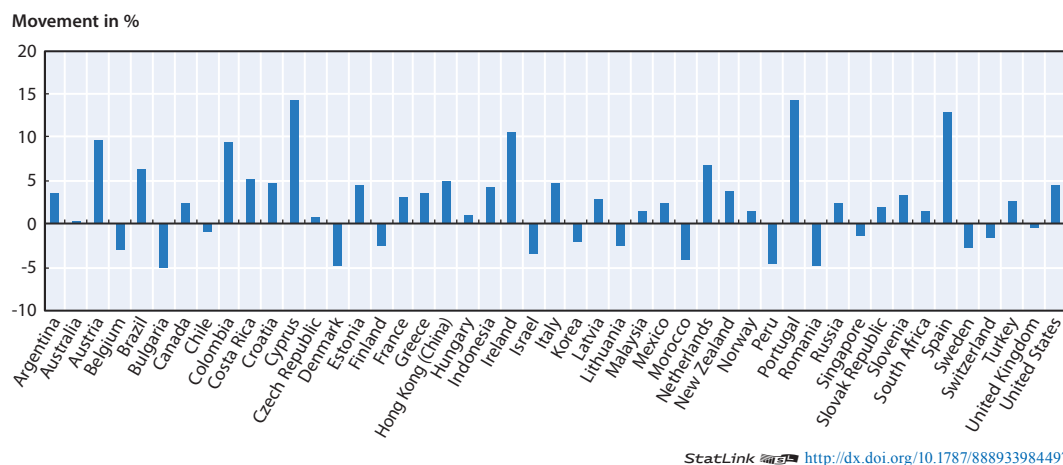
Figure 4.12. Age profiles of tax administration staff, 2017
Percentage of staff by age bands for selected regional groupings



Note: The following administrations are included in the regional groupings: Americas – Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Peru and the United States; Asia-Pacific – Australia, China, Hong Kong (China), Indonesia, Korea, Malaysia, New Zealand, Singapore and Thailand; Europe – Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Portugal, Romania, Russia, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Source: Table D.7 Staff age distribution.

Figure 4.13. Evolution of percentage of staff older than 54 years between 2014 and 2017



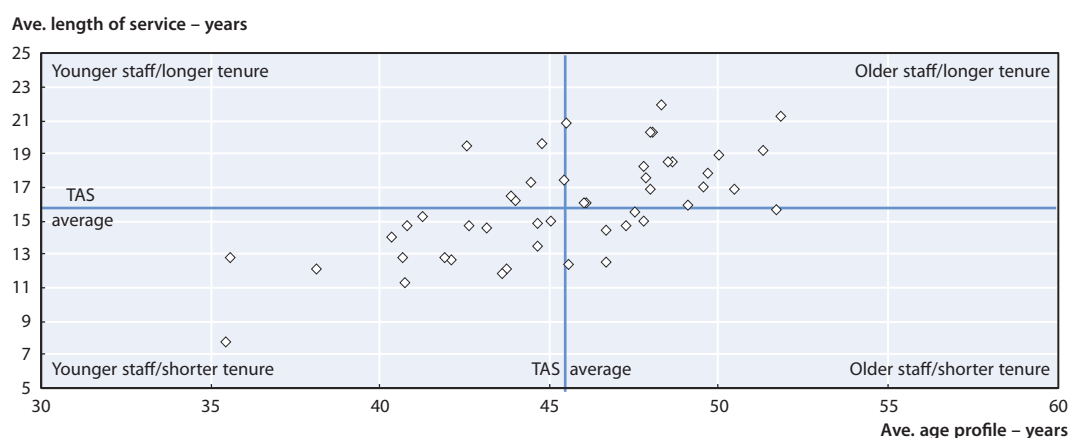
Note: Only includes jurisdictions that were able to provide the information for the years 2014 and 2017.

Sources: Table D.7 Staff age distribution and Table A.22 Staff metrics – Age distribution in OECD (2017), Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies https://doi.org/10.1787/tax_admin-2017-en.

Length of service

The difference in age profiles is also largely reflected in the length of service of tax administration staff. Figure 4.14 indicates that a significant number of administrations will not only face a large number of staff retiring over the next years, but that many of these staff will be very experienced, thus raising further issues about retention of key intellectual knowledge. In this respect, see Box 4.9 for an example of how Kenya deals with knowledge retention and transfer.

Figure 4.14. Average length of service vs. average age profile, 2017



StatLink <http://dx.doi.org/10.1787/888933984516>

Sources: OECD Secretariat calculations based on Tables D.7 Staff age distribution and D.8 Length of service.

Box 4.9. Knowledge management

In *Kenya*, the Kenya Revenue Authority (KRA) has implemented a number of initiatives to support knowledge management:

1. Formulation and implementation of Knowledge Retention and Transfer

This initiative focuses on reducing the loss of organisational knowledge when staff leave the KRA. Retiring staff are sent acknowledgement letters at least one year prior to retirement asking them to share their knowledge and expertise and to implement specific activities to transfer of knowledge including within teams. A knowledge capture interview is also conducted and the reports published on iKnow platform.

2. Establishment of corporate knowledge base, “iKnow”

The iKnow platform allows a variety of knowledge resources to be published, such as reports, lessons learned, research, surveys, plans, notices, rulings and videos. It is designed to provide a one-stop-shop so as employees can retrieve relevant resources from a single access point. In some cases, the knowledge resources are verified for relevance, accuracy and use by designated subject matter experts before publication. The platform has made it easy for staff to locate and access knowledge resources which improves productivity and performance of staff. This was corroborate by 67% respondents who said that knowledge management initiatives had increased their productivity and 89% indicated that knowledge sharing improves their competency in 2018 survey. The knowledge resources have increased from 412 in the first year to 1 306 in the second year. The use and reuse of the published resources increased from 34 878 to 84 658 downloads.

3. Establishment of a collaborative platform, “iCONNECT” and designated experts

The iCONNECT is a collaborative platform designed using an open source software known as eXo platform. The platform has an inbuilt expert locator which offers direct access to over 136 experts profiled to answer questions on technical areas and to help in making critical business decisions. The platform, now available on a mobile app, facilitates online Communities of Practice and networks where staff plug-in and share knowledge.

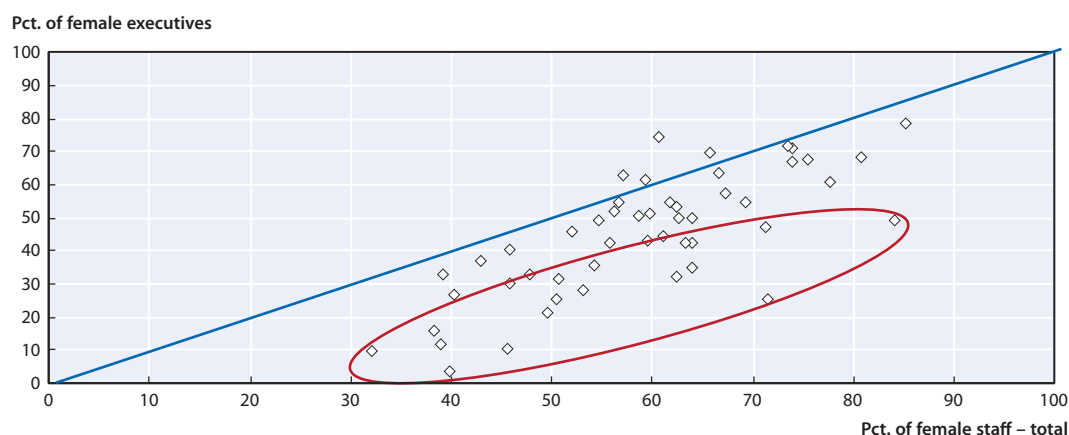
Source: Kenya – Kenya Revenue Authority (2019).

The Figure also indicates that a small number of administrations have an above-average workforce age, while the length of service is lower-than-average (see Figure 4.14, Quadrant “Older staff/shorter tenure”).

Gender distribution

In light of the strong public interest in gender equality, administrations were invited to break-down total staff and executive staff² by gender. As can be seen in Figure 4.15, while many administrations are close to the proportional line, typically female staff remains proportionally underrepresented in executive positions and significantly underrepresented (red oval) in a number of administrations.

Figure 4.15. Percentage of female staff – total female staff vs. female executives, 2017



StatLink  <http://dx.doi.org/10.1787/888933984535>

Source: Table D.9 Gender distribution and academic qualifications.

Looking at the evolution of the percentage of female staff over the period 2014 to 2017, as shown in Table 4.3, it can be seen that on average the percentage of total female staff as well as the percentage of females in executive positions has slightly increased. This is confirmed by the individual data which shows that in two-thirds of the administrations the percentage of total female staff and female executives has increased between 2014 and 2017.

Table 4.3. Percentage of female staff (in percent) between 2014 and 2017

	2014	2015	2016	2017
Total female staff (50 jurisdictions)	56.9	57.1	58.4	59.1
Female executives (42 jurisdictions)	44.3	45.4	44.1	46.4

Note: The table shows the evolution of the percentage of female staff (total female staff vs. female executives) for those jurisdictions that were able to provide the information for the years 2014 to 2017. The number of jurisdictions for which data was available is shown in brackets.

Sources: Table D.9 Gender distribution and academic qualifications and OECD (2017), Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies, Table A.24, https://doi.org/10.1787/tax_admin-2017-en.

Box 4.10. The OECD's Forum on Tax Administration Gender Balance Network

As shown in Figure 4.15, a large number of tax administrations reported a significant disparity between the proportion of women in leadership positions in their organisations compared to the number of female staff in their workforce as a whole. In general, this trend is replicated throughout the public and private sectors. Some administrations, though, have had notable success in implementing policies to create a gender balance in their workforce. To build on this positive base the Gender Balance Network was launched in March 2019 at the Forum on Tax Administration Plenary in Santiago, Chile.*The Gender Balance Network seeks to leverage the learning of those that have had success in promoting diversity in their workforce to help tax administrations become leaders within the public sector in this area, maximising the benefits of a positive gender balance within their organisations. The Network is led by an Advisory group of Commissioners and senior officials from Argentina, Canada, New Zealand, Norway and Singapore. Commissioners will nominate individuals from within their organisation that are committed to achieving enhanced gender balance throughout their organisation. These Gender Balance Champions will share experiences across the Network, produce best practice notes to identify strategies for recruiting, developing and retaining a gender-balanced workforce and create networking opportunities for potential leaders within their administrations.

*For further information on the FTA Plenary see: www.oecd.org/tax/forum-on-tax-administration/events/.

Staff attrition

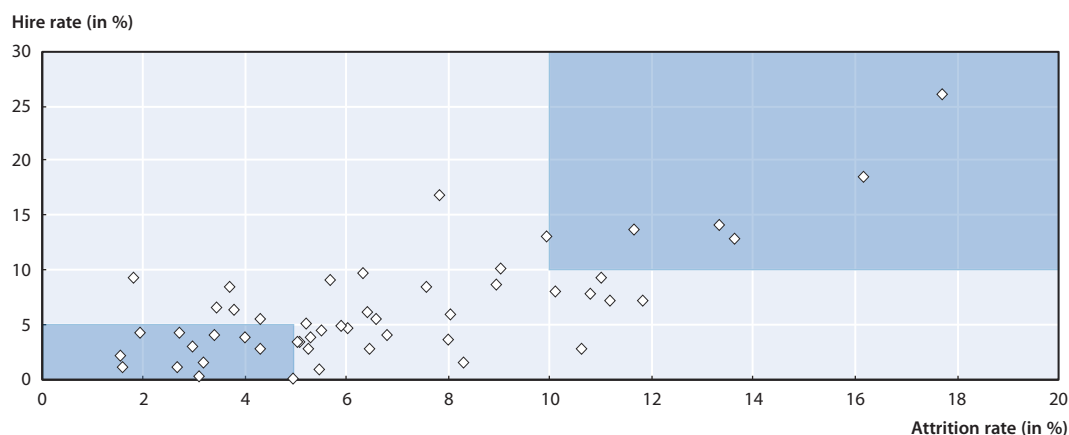
Staff attrition, also called staff turnover, refers to the rate at which employees leave an organisation during a defined period (normally a year). High attrition rates may result from a variety of factors, such as downsizing policies and/or demographics or staff dissatisfaction. An organisation's attrition rate should be considered together with other measures, such as the hire rate, which looks at the number of staff recruited during a defined period.

While a high attrition rate combined with a low hire rate is usually associated with a general downsizing policy – and may therefore be accepted – administrations should be concerned where both rates are high. Recruitment is costly, not only the recruitment process itself but also the cost and time for training and supporting new staff members, and the significant down time before new staff are fully operational or able to perform at the highest level. Having high attritions rates are generally to be avoided.

Having attrition rates that are too low may also not be ideal either. Where an organisation is growing a low attrition rate may be accepted. However, in situations where both the attrition rate and the hire rate are low, an organisation may not have the ability to recruit new skills as all positions are filled. This could be an issue particularly, for administrations undergoing transformation and are, therefore, in need of staff with skills that are different from what is currently available within the administration.

While what is considered a “healthy” attrition rate differs between industry sectors or jurisdictions, and the general economic conditions also influence this judgement, the average attrition rate for administrations participating in this publication of 6.8% in 2017 and the average hire rate of 6.4% in 2017 (see Table D.6) would seem to present a reasonable range for tax administrations of between 5% and 10%. The average attrition and hire rates are in-line with average rates seen for the years 2014 and 2015 (see the 2017 edition (OECD, 2017_[3])).

Figure 4.16. Attrition and hire rates, 2017



StatLink  <http://dx.doi.org/10.1787/888933984554>

Note: Attrition rate = number of staff departures/average staffing level. Hire rate = number of staff recruitments/average staffing level. The average staffing level equals opening staff numbers + end-of-year staff numbers/2.

Source: Table D.6 Staff dynamics.

When looking at the specific administration data, it becomes apparent however, that “attrition and hire” rates cover a very broad range. Figure 4.16 shows the relationship between tax administration attrition and hire rates. It illustrates that there are a number of administrations with attrition and hire rates well above 10% (upper-right box), while others show very low attrition and hire rates (lower-left box).

4.4.3. Human resource management

Given the challenges addressed earlier in this chapter, particularly in obtaining new capabilities while dealing with an aging and shrinking workforce, success will often come down to the way staff are engaged, managed and led. In this respect it is good to see that almost all (97%) of the tax administrations surveyed report the existence of a HR strategy that sets out their key plans and objectives in management of its people. There is considerable benefit for those that have not already established this practice to do so.

The importance of preparing existing staff for the challenges ahead has been recognised. All administrations have a plan that provides for the upskilling of existing staff, with almost all having formal training cycle processes in place. Further, 3 out of 4 have specific leadership and talent management programmes.

Policies for flexible working arrangements, important from a work-life balance perspective, exist in three-quarters of the administrations covered by this publication. Of those, in almost all staff can work flexible working hours and the majority offers staff the possibility to work from home or elsewhere on an occasional basis.

Table 4.4. **Human resource management approaches, 2017**

Approaches	Selected items of the approaches	Percent of administrations
HR strategy exists		97%
	HR strategy is competency-based	75%
	Job dictionary is in place	71%
	Job catalogue is in place	79%
	Job descriptions exist	91%
Training strategy exists		100%
	Formal training cycle process exists	93%
	Specific training plan exists	98%
	Induction programme exists	91%
Staffing plan exists		83%
	Specific recruitment plan exists	90%
	Job rotation procedures are in place	73%
	Career path for managerial and specialist functions exists	48%
Flexible working arrangement policies exist		76%
	Staff can work flexible working hours	95%
	Staff can work from home/elsewhere on occasional basis	70%
	Staff can work from home/elsewhere on regular basis	27%
Specific leadership and talent management programmes exist		74%
	Programmes are developed internally	84%
Time reporting system exists		72%
Diversity policy providing for equal opportunities exists		84%

Note: With respect to the selected items of the different HR management approaches, the percent of administrations refers only to those that have the particular approach in place.

Sources: Tables A.45 to A.49 Human resource management.

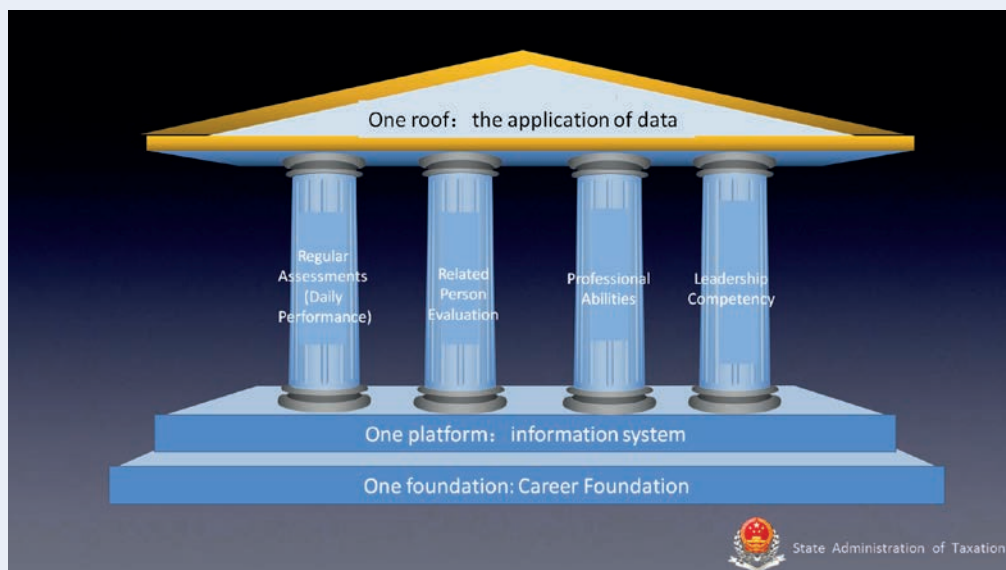
Box 4.11. Human resource management

In *Australia*, the ATO introduced MAP@Work (My Availability Profile), an automated, personalised and visual summary of attendance behaviour. This allows staff to see leave taken in the last month, last 12 months, the number of leave instances, and a 12 month leave calendar customised to each employee. It is paired with positive messaging encouraging employees to look after themselves with links to internal health and wellbeing support services. MAP@Work has nudged people towards mindful decision-making regarding their leave usage and work-life balance. It was originally piloted with 3 000 employees, and was implemented across the ATO in 2017. The pilot yielded positive results with a significant decline in unscheduled absences and achievement of productivity savings.

In *China*, the State Taxation Administration (STA) has developed a new method of human resources management called Digital Human Resources aimed at evaluating performance, increasing efficiency, supporting personnel decisions and staff motivation from 2014. It is daily, multi-dimensional, data-based, cumulative, and comparable. Its framework is like a house, with “one foundation, one platform, four pillars, and one roof.”

Box 4.11. Human resource management (continued)

Figure 4.17. The E-Personnel Framework



Source: China – State Administration of Taxation, 2019.

- The “One Foundation” refers to the quantitative assessment of an official’s educational background and effectiveness of work in the past 3 years.
- The “One platform” refers to the software platform.
- The “four pillars” consist of Regular Assessments (Daily Performance), Peer Evaluation, Professional Capacities, and Leadership Competence. This is supported by a comprehensive set of scored indicators and the overall score is reflected in officials’ personal growth accounts.
- The “One roof” refers to the application of the above comprehensive data, ranking and segmenting the assessment scores of similar officials at the same level. This ranking is used in annual appraisal, promotion and rotation decisions.

More than 320 000 tax officials have engaged in the Digital Human Resources system by 31 December 2017, accounting for more than 42% of the total number of tax officials; and it will cover all Chinese taxation departments before 1 July 2019.

Statistics show that the work has given measurable results; average time to prepare and pay taxes in China reduced to 142 hours annually (World Bank, 2019^[4]). A survey on taxpayers’ satisfaction level conducted by a third party in 2017 showed increased satisfaction, with the overall score of provincial offices of the STA and the Local Tax Bureaus lifted by 5.49 and 2.04 respectively compared to 2016. The passing rate of Tax Law Enforcement Qualification Exam in 2018 increased by 6.61% compared with 2017.

In *Kenya*, the Transformation Leadership Office of the KRA has established a network of Staff representatives, referred to as “Commissioners on the Ground” (COGs). These representatives, elected by their colleagues, form a network that provides a platform for the leadership (Commissioners) to interact with staff (on the ground), hence the term “Commissioners on the ground”. The COGs are taken through relevant training to equip them

Box 4.11. Human resource management *(continued)*

with skills in change management and information on KRA's transformation strategy. This enables them to effectively assist their line managers in playing their roles of communicating and liaising with staff and leadership; advocating for the organisation's transformation agenda; managing resistance; and coaching their colleagues. The programme is aimed at creating a feedback channel by networking staff across the organisation. The network also provides an avenue for leadership visibility through a series of open dialogue sessions dubbed "SIKIKI" ("Be heard"). These sessions aim at establishing a common understanding of the Transformation Agenda while promoting a culture of constructive feedback in the organisation.

In the *United Kingdom*, HMRC is redefining the way it will collect and use data relating to its people. The People Data Strategy sets out an approach to harness data and insights to better understand what drives and motivates the people who work in the organisation. This will enable HMRC to make more informed decisions about their people, and better target interventions so the aims of our People Strategy, namely positive experience and high productivity, can be met. The People Data Strategy is concerned with improving the quality and exploitation of all types of data, both internal and external, including understanding how the external lives of its employees affect their experience within work. The Strategy will provide a clear vision and high-level plan for addressing the key strategic data issues related to delivering the People Strategy. It will collect a wider set of data to enable strategic analysis of the workforce, improve the governance of all people data, enable more straightforward, flexible, and transparent reporting of data and enhance understanding of the interventions to support staff.

Sources: Australia – Australian Taxation Office (2019), China – State Taxation Administration (2019), Kenya – Kenya Revenue Authority (2019) and the United Kingdom – Her Majesty's Revenue and Customs (2019).

4.4.4. Human resource autonomy

As set out in section 4.2 on governance arrangements, tax administrations can benefit from a high degree of autonomy in relation to recruitment, development and remuneration to ensure the effective and efficient operation of the tax system. While the majority of administrations report having high degrees of autonomy for all HR related matters, a portion of administrations only have autonomy in some areas, and some have no autonomy at all. Further, as mentioned in previous editions of this series, even where tax administrations have autonomy, there are often regulatory or budgetary constraints that may inhibit the effective use of these powers. Accordingly, there is considerable variation in the extent of the autonomy tax administrations enjoy in HR matters.

As can be seen in Table 4.5, the degree of autonomy remains largely consistent across the different areas, with the exception of "Placement of staff within a salary range" which is significantly below the ratings of other HR powers administrations typically have. This may be a particular concern in the areas of digital technologies, information management, advanced analytics, behavioural science and critical ICT capabilities.

Table 4.5. **Human resource autonomy, 2017**

Categories of autonomy	Percent of administrations: Degree of autonomy		
	Autonomy for all staff	Autonomy for some staff	No autonomy
Determine work requirements	79%	19%	2%
Make appointments of new staff	79%	9%	12%
Decide on promotion of existing staff	71%	24%	5%
Decide skills and qualifications required for appointment or promotion	73%	22%	5%
Determine whether work is carried out by permanent staff or contractually	66%	17%	17%
Place staff within a salary range	59%	12%	29%
Terminate employment	69%	26%	5%
Apply disciplinary sanctions	82%	14%	4%

Source: Table A.40 Human resource autonomy.

4.4.5. Staff satisfaction and performance management

Almost all tax administrations report that they have performance management systems in place, and most of these include specific objectives for each staff member (see Table 4.6). While individual development plans are important, one-fifth of the administrations do not include them in their performance management system. However, the figures have slightly increased when compared to the 2015 data (OECD, 2017_[3]).

Table 4.6. **Staff satisfaction and performance management, 2017**

Percent of administrations

Staff satisfaction, engagement and motivation					Performance management		
Periodic staff survey	Assessment of staff engagement	If yes,		System in place	Includes individual development plans	If yes,	
		Results shared with staff	Staff engaged when responding to assessment			Includes specific objectives	Evaluation at least annually
74%	88%	91%	79%	95%	80%	91%	95%

Sources: Tables A.41 Staff surveys and A.42 Performance management.

Box 4.12. Performance management

In *Canada*, the Canada Revenue Agency (CRA) has a performance management process that delivers performance expectations, mid-year reviews, and year-end assessments to employees, as well as performance rewards to managers for their effective people management. This process is delivered through an online system that includes fully automated workflow between managers and their employees. It also includes recent enhancements of automated reward forms (April 2017) and electronic reminders to managers (April 2017 and December 2018). Reward forms are automatically created and loaded with the system data if the manager meets the eligibility criteria. The form can then be electronically submitted for approval to the delegated manager and subsequently to Compensation for processing. This is done in a completely paperless process that is secure and user-friendly for all parties involved.

Source: Canada – Canada Revenue Agency (2019).

Conducting regular surveys to gather employee perceptions of the workplace and HR management to better inform decision making in these areas can be of particular importance in times of change. Measuring staff engagement, satisfaction and motivation, sharing the results of surveys of these areas with staff, and involving them in the selection, design and implementation of changes has proven a successful formula to increase productivity in a number of tax administrations. Chapter 14 describes how the ATO has engaged with its staff to improve overall staff experience and increase productivity.

Three-quarters of the administrations report conducting periodic staff satisfaction surveys (see Table 4.6), although the frequency of surveys may vary. Almost all of those tax administrations who survey staff also share survey results with staff and most also consult with staff when considering responses to survey findings.

Box 4.13. Improving staff satisfaction

In *Brazil*, the RFB recognises outstanding performance through a number of awards. The Noe Winkler Medal is given in recognition of excellent work done by employees. An Award for Creativity and Innovation is given for innovative solutions that serve as an inspiration to modernise RFB. The “Work Stories Contest” collects, selects, and rewards experiences of the Federal Revenue employees in the daily routine of their work. It is focused on work situations that are considered important contributions to the institutional memory of the RFB. Finally, the Essay and Artwork Contest, aimed on children, contributes to the process of citizenship and brings them closer to their parents’ professional daily life. It stimulates them to develop a perception about the relationship between working in the tax administration and building a better society.

Source: Brazil – Federal Revenue Service of Brazil (2019).

4.4.6. Remuneration

Over 80% of tax administrations report that staff remuneration levels are tied directly or broadly to wider public sector pay scales, while almost one-fifth report that they have their own unique pay system (see Table 4.7). Further, more than 80% report that remuneration can be linked to performance – a significant increase compared to 2015 data (OECD, 2017^[3]). For those that can link performance to pay and reward, good performance can typically result in increased remuneration (94%) while poor performance will less often result in reduced salary (50%) or the denial of annual increments (60%). There are a small number of administrations that report being unable to reward good performance.

The nature of the reward mechanisms vary greatly and include individual or collective salary increases, flexibility to adjust salary scales, promotions, individual or collective bonuses, and non-monetary rewards.

Table 4.7. **Remuneration, 2015**
Percent of administrations

Pay scales			If yes,			
Tied directly to normal civil/public sector pay scales	Tied broadly to normal civil/public sector pay scales with some degree of flexibility	Unique	Performance linked to pay and reward	Good performance can result in increased remuneration	Poor performance can result in reduced salary	Poor performance can result in denial of annual increment
50%	33%	17%	83%	94%	50%	60%

Sources: Table A.43 and A.44 Remuneration.

4.4.7. Capability

The changes tax administrations are managing at present, whether technological, international, policy or budget driven are significant. Tax administrations will have to adapt to the culture and services expected by taxpayers, particularly the next generation. A key issue in this respect is how to transition staff through this change.

As shown in Table 4.4, all tax administration have not only recognised the importance of preparing existing staff for this transition but have training strategies in place that allow existing staff to upgrade their skills. The need to increase capability internally is particularly important where employment conditions, contractual requirements and remuneration levels, make it difficult to hire skilled staff, particularly, when competing with private sector for skills.

Almost all administrations have a specific training plan which is important when investing in new capabilities to support the ability to implement change more rapidly and to support the development and adoption of new services and products, particularly involving digital technology. Box 4.14 summarises the approaches taken by a few administrations to improving staff capability.

Box 4.14. Improving staff capability

In **Canada**, the CRA launched a new approach in 2017 to training new call centre agents called “nesting and gating” to improve agent readiness. Every new hire in the Business Enquiries and Individual Enquiries call centres was provided post-training support, including tools and refreshers (review of training material), as an addendum to their 6-week core training. Post-training support activities take place over a period of up to 10 weeks. Between October 2017 and April 2018, over 700 agents completed about 3 500 individual learning activities under the new nesting and gating programme for a total of 7 500 hours of additional training, which enhanced their proficiency and the transferability of their core technical training to their job. This new approach, with the development of supplementary “just-in-time” refresher training modules for existing call centre agents, ensures Canadians receive the accurate information they need. Work is also underway to create a new National Accuracy Team as a long term solution for accuracy assessment in addition to ongoing local quality monitoring. The team is being staffed with individuals with call centre expertise who will monitor calls across the national network to develop observations of agent behaviours and opportunities to improve tools and training materials.

In **Chile**, the Tax Training and Research Center (CFiT) of the Servicio de Impuestos Internos (SII) was inaugurated on 3 November 2017. Its main objectives are: to provide specialised training and development activities, including coaching, for tax administration staff; to generate, manage and co-ordinate tax research; and to provide training to taxpayers, representatives, and tax intermediaries to promote tax compliance. The Tax Training and Research Center, which provides services for nearly 5 000 employees of SII, features 9 fully equipped conference rooms and 2 IT laboratories with room for 370 participants.

In **France**, revamping vocational training is a strategic challenge for the Directorate Générale des Finances Publique (DGFIP), which aims to better prepare its agents for their jobs. Before taking their posts at the DGFIP, new recruits receive initial training at the National Public Finance Academy. This initial training has been overhauled, beginning with the curriculum for public finance inspectors, who hold managerial responsibilities at the DGFIP. The new training curriculum has been divided into three phases: common “core” training for all trainees, providing them with the basics (four months); technical training adapted to their

Box 4.14. Improving staff capability *(continued)*

assignment (also four months); and a practical training period of three months in their assigned post. After this initial training, the public finance inspectors can receive additional training as part of an “individual training passport” in order to develop their technical skills in greater depth. The passport also allows the training that agents receive to be recorded.

In **Mexico**, training is provided through the Tax and Foreign Commerce Training Center (T&FCTC) which trains officers of the tax administration in issues connected with foreign commerce, merchandise and passenger inspection, customs law, audits and taxpayer services. The T&FCTC has two campus, one in the city of Chichimequillas, in Queretaro, with capacity for up to 300 people, and the second in Mexico City with capacity for up to 150 people. The Foreign Training Programme lasts 56 days and gives priority to both practical aspects around inspections and security as well as the development of core institutional values, quality of service and professionalism.

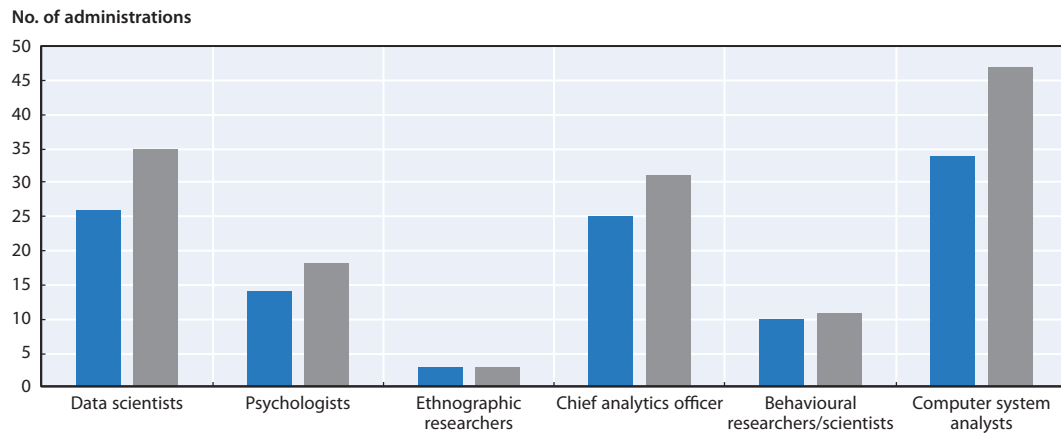
In **New Zealand**, Inland Revenue has identified 12 capabilities that represent the mix of skills, experience, knowledge and attitudes required by staff to support customer delivery and organisational transformation. They are capabilities related to Business Acumen and Partnering, Change Management, Complex Compliance Management, Customer Advisory, Data, Analytics and Insights, Design and Integration, Digital Literacy, Information and Knowledge Management, Leadership, Policy Quality and Agility, Quality Decision Making and Workforce Management. Each capability has three levels – fundamental, applied and expert. The 12 people capabilities are integrated into Inland Revenue’s role design and approaches to learning, performance and workforce management.

Sources: Canada – Canada Revenue Agency (2019), Chile – Servicio de Impuestos Internos (2019), France – General Directorate of Public Finances (2019), Mexico – Servicio de Administración Tributaria and New Zealand – Inland Revenue Department (2019).

In addition, four-fifth of the participating administrations have indicated that they assess current and future capability needs with 80% of them having a formal plan to address gaps or formal targets to increase capability (see Table A.50).

Figure 4.18 shows that a large number of administrations have lifted their IT and analytics capabilities and now employ data scientists, chief analytics officers and computer system analysts. Between 2014 and 2017, the number of administrations employing specialists has particularly increased in those three areas. This finding is not surprising in a world that is becoming more focused on using data. There continues to be an opportunity, however, for other administrations that are not hiring these capabilities to reconsider the importance of such positions to enabling modern tax administration. One area where only 20% of administrations report employing researchers and scientists is behavioural insights. How employing those skills can help addressing compliance issues is described in the article “Behavioural Insights for Tax Administration” included in Chapter 10.

Figure 4.18. Number of administrations with specialised positions between 2014 and 2017



StatLink  <http://dx.doi.org/10.1787/888933984573>

Sources: Table A.51 Future capability – Specialist positions and OECD (2017), Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies, Table A.63, https://doi.org/10.1787/tax_admin-2017-en.

Box 4.15. Specialised skills

In *Canada*, the CRA is using ethnographic research to better understand the experiences of client groups, with a view to improving services to taxpayers. Ethnography is a qualitative research method that uses immersion, participant observation and semi-structured interviews to collect granular data that provide insight into people’s experiences and behaviour. The three ethnographic research projects undertaken to date have focussed on small businesses, homeless people and housing-insecure individuals, and vulnerable newcomers. The results of these projects have helped the CRA improve its outreach methods and services to these populations. For example, with a better understanding of the barriers that homeless individuals face in accessing benefits, the CRA has been able to develop outreach materials that are tailored to this population’s needs.

Source: Canada – Canada Revenue Agency (2019).

Notes

1. In the section on Staff metrics, tax administration includes both tax and customs staff of the administration.
2. As the ISORA survey does not provide a definition for “executive staff” administrations used their own definition.

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Part II

Topical issues in tax administration

The chapters in Part II should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Chapter 5

Measuring impacts on the taxpayer's perception of administrative burdens

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Her Majesty's Revenue and Customs, United Kingdom

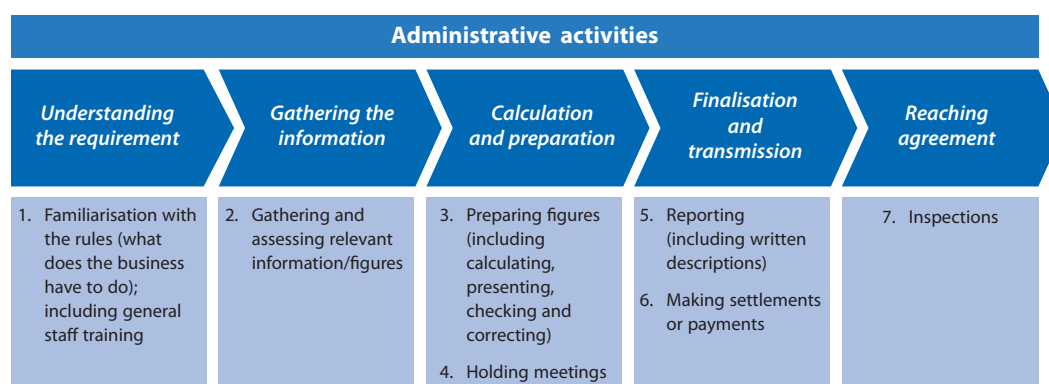
This chapter considers the value of complementing existing quantitative measurement of compliance burdens with the measures aimed at understanding taxpayers' perception of burdens. The aim is to give a more holistic view of the overall impact of burdens on economic activity and taxpayers' views of tax administration. In doing so, it reports the results of a survey of Forum of Tax Administration members undertaken by HMRC in 2018 and the subsequent development of a Compliance Burdens maturity model, a self-assessment tool to help administrations understand their relative maturity and options for possible improvements in approaches.

1.1. Introduction

The United Kingdom's tax authority, Her Majesty's Revenue and Customs (HMRC), is committed to reducing the ongoing administrative costs to compliant businesses in meeting their tax obligations and of dealing with HMRC. This is represented by HMRC's Customer Cost Reduction target to reduce burden by GBP 400 million per annum by March 2020. HMRC defines an administrative burden as "the cost to businesses of disclosing information to HMRC or to third parties in order to comply with their tax administration obligations". Burdens are currently measured using the Standard Cost Model (SCM). The Standard Cost Model (SCM) is used in combination with an internal tool, the Total Cost to Serve (TCTS) which assesses customer journeys as well as internal expertise and research, to provide a full picture of customer costs. Developed in 2003, the SCM methodology determines the administrative burdens imposed by regulation. It is a quantitative methodology that can be applied at multiple levels, measuring burden in existing legislation or simplification proposals as well as the administrative consequences of a new legislative proposal.

The SCM looks at five key stages of the administrative burden journey (see Figure 5.1).

Figure 5.1. **Administrative activities journey**



Source: HMRC (2018), internal guidance.

GBP 400 million is an ambitious target and HMRC sought new and innovative ways to introduce further reductions. The focus initially was on the biggest baseline causes of burden. However, this approach raised some topical questions. Stakeholders had often felt quantitative scoring of burdens did not always identify or reflect the reality of burden experienced by those they represented, for example small businesses. Quantitative methodologies were blind to certain complexities, inconvenience and emotional consequences of burdens and did not take into account customer capability. In an era where improving the customer (taxpayer) experience increasingly features as a primary strategic objective, HMRC wished to find ways of reducing the burden while simultaneously increasing customer satisfaction, i.e. going beyond the numbers to find opportunities to reduce burdens in ways that customers could feel.

To do this, HMRC undertook a two pronged approach by commissioning qualitative research on the perception of burdens amongst customers and researched best practices and tried and tested innovations in reducing burdens amongst the international tax authority community. Existing qualitative research was scarce and dated. HMRC already carries out quantitative experience surveys of small, medium and large business customers. Table 5.1 shows the responses to questions focusing on administrative burdens.

Table 5.1. Responses to questions on administrative burdens by UK business customers

Question	Year	Responses	
Overall admin burden is acceptable	2015	Large businesses who agree	
		48%	
		46%	
	2017	41%	
HMRC minimised the cost, time and effort it took to deal with my business tax affairs	2015	Medium businesses who agree	Small businesses who agree
		37%	59%
		40%	60%
	2017	47%	58%

Source: HMRC (2015-17) “Individuals, small business and agents customer survey”, “Mid-sized business customer survey”, “Large Business Survey”.

While the results demonstrated room for improvement, they did not indicate why customers felt this way or suggest what improvements might be made that had the greatest chance of increasing the scores. This motivated the need to undertake further qualitative research to get behind what was driving these scores.

1.2. Customer Perceptions of Administrative Burdens

HMRC carries out regular engagement with customers and their representatives. These qualitative studies of customers have resulted in a range of “deep truths” that inform strategies and improvements to HMRC’s service. Using small business customers as an example, an amalgamation of findings over time illustrates that most customers want to meet their tax obligations and pay the correct amount of tax. However, often they find tax complicated and state they do not always understand what they have to do, or even recognise they have particular obligations. Some experience difficulty in accessing the right information and support. Customers seek certainty and assurance in their tax obligations and fear the consequences of getting things wrong. This can create cognitive overload when administering their tax affairs resulting in emotional burdens and excessive processes for ensuring they get their tax right. Rather than considering and calculating the cost of administrative burdens in monetary terms, customers tend to view burdens in terms of the difficulty of trying to get things right.

Cognitive overload and emotional burdens, compounded with fear of punitive measures could actually contribute towards a risk of poor compliance with tax obligations through error and failure to take reasonable care. In addition, demands upon the customer service functions of the tax administration could increase, especially amongst customers who are not represented by an agent. Overall, the success in terms of compliance from any new tax policy could be undermined. This motivated HMRC to think about how impact assessments of changes to the tax system could be measured from a qualitative value.

1.3. Survey to identify international best practice in reducing administrative burdens

HMRC surveyed the OECD Forum on Tax Administration (FTA) international community for examples of their experiences in considering, measuring and reducing burden. Existing literature and research on this theme was scarce although in 2007 the United Kingdom National Audit Office published a consultancy report titled “*Best Practice*” in Tax Administration by John Hasseldine (Hasseldine, 2007^[1]). This included contributions from

eight other countries. The report helped establish the structure for HMRC's survey and focus the areas of enquiry.

The survey, titled “International Best Practice in Reducing the Administrative Burdens for Business Customers”, was structured around five topics:

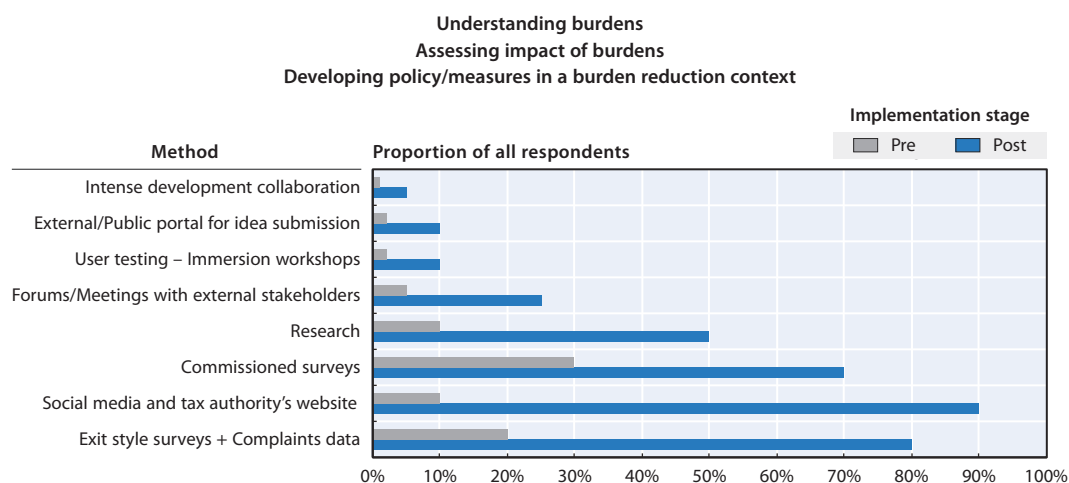
- How administrative burdens are considered and measured in policy, project and product development
- What methods are used to measure administrative burdens
- How taxpayer insight and experience plays a role in understanding burdens
- The extent to which burden reduction forms part of the business plans and strategic objectives of tax authorities
- What initiatives and programmes have been, or plan to be implemented to reduce the burdens on businesses.

Twenty responses were received from FTA members and analysis of the findings found some distinct similarities in the maturity of how tax authorities approach administrative burdens.

While many governments have commitments to reduce the burden of general regulation, not all included tax. Most often, those that were not subject to the scrutiny and validation of any assessment of general regulation burdens did not have any other independent alternative. For many jurisdictions, tax is the preserve of their ministry of finance or equivalent.

Typically, taxpayers are awarded the opportunity to appraise and influence policy design through public consultations. Rarely are taxpayers or stakeholders actively involved in the rationale or objective setting stages of policy development. There was evidence of external stakeholders, in the form of professional expert forums and boards, being able to provide new ideas for consideration at the rationale stage and providing advice and opinion during objective setting.

Figure 5.2. **International trends in understanding and measuring customer perceptions of burdens from tax policy**



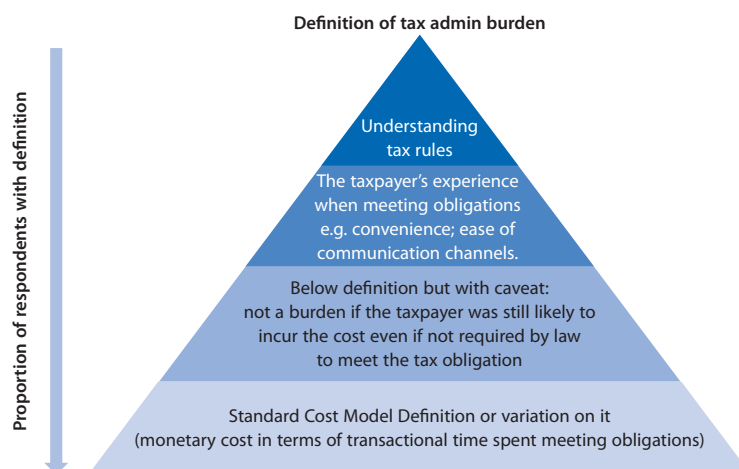
StatLink <http://dx.doi.org/10.1787/888933984592>

Source: HMRC (2018), “International Best Practice in Reducing the Administrative Burdens for Business Customers”.

Some authorities actively engaged with stakeholders to understand, at least anecdotally, how existing administrative burdens impact taxpayers and reported being open to acting on feedback or considering suggestions for change. Most authorities also actively captured the general customer experience of their services. However, there was little evidence of respondents attempting to capture or understand specific insight on perceptions of administrative burdens. Figure 5.2 illustrates how the majority of activity to understand the perception of burdens was undertaken retrospectively on existing tax policy and products.

The SCM, or a similar time/cost based in-house methodology was the most popular way of measuring the potential burden. Unsurprisingly therefore, any definition of burden was based on time/cost. Some tax authorities either relied exclusively on expert opinion to assess any impact, or supplemented time/cost quantitative measuring of burden with qualitative assumptions from expert representatives. Figure 5.3 illustrates how the majority of respondents held a quantitative definition of burden, while a minority also considered the customers' perception.

Figure 5.3. Common definitions of tax admin burdens by proportion of survey respondents

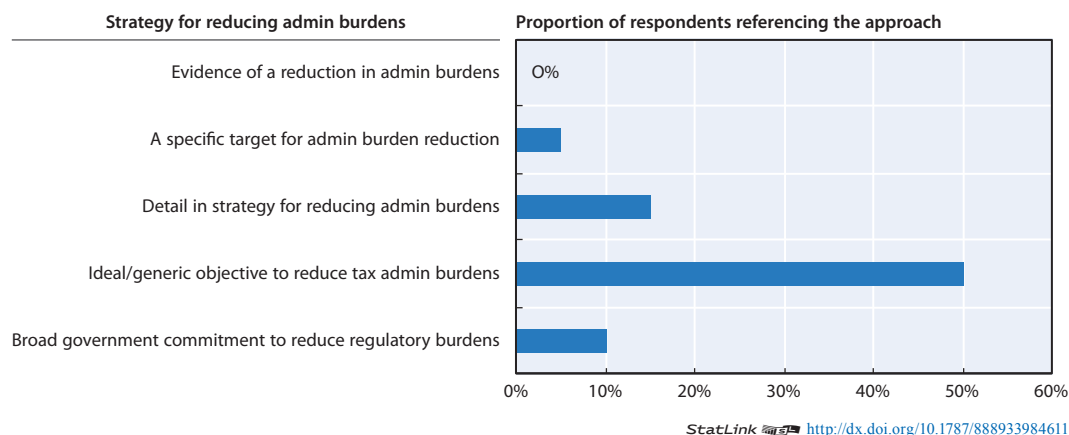


Source: HMRC (2018), "International Best Practice in Reducing the Administrative Burdens for Business Customers".

A focus on reducing administrative burdens featured in nearly all the corporate strategies of the respondents. Overall most offered a generic commitment to reducing burdens, although some went further and could provide specific detail. Most did not appear to have an independent target for either improving the time/cost or perception of administrative burdens. This is illustrated in Figure 5.4.

Across the five stages of the administrative activity journey, the vast majority of past and present burden reduction initiatives were focused on reporting and paying tax. The vast majority of these were from providing access to e-services. This was similar for future initiatives but with a greater aspiration towards digital automation. More ambition could be found towards supporting the administrative stages prior to reporting and paying.

Figure 5.4. **Distribution of strategic commitments to reducing admin burdens across survey respondents**



Source: HMRC (2018), “International Best Practice in Reducing the Administrative Burdens for Business Customers”.

1.4. Qualitative Impacting Methodology

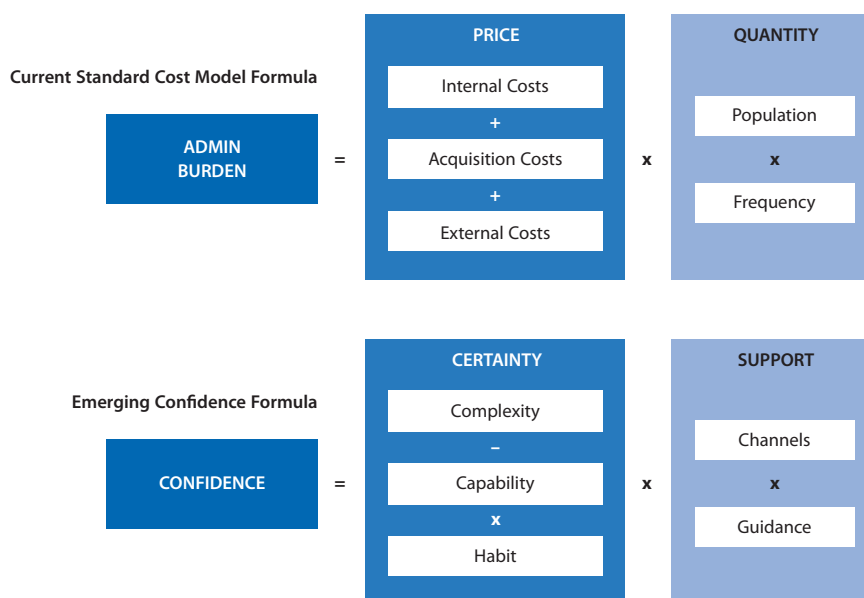
The SCM is an important burden measuring tool and reducing the quantitative burden of compliance remains an important ambition. However, experience has shown that it has limitations in measuring the impacts on the perception of burden and customer experience of tax administration. It also does not take into account variables such as the capability of the customer. If tax administrations are to consider evolving towards adopting qualitative targets to improve the experience of burden, then this ambition will need to be supported by a qualitative methodology.

HMRC has been working to develop just such a methodology that incorporates key principles of the Office for Tax Simplifications (OTS) Complexity Index (OTS, 2017^[2]). Launched in 2010, the OTS is an independent body that provides independent advice to the government on simplifying the United Kingdom tax system. The Complexity Index was developed as a tool to measure complexity in the existing system in order to help prioritise simplification projects.

HMRC has looked at developing a methodology that can measure assumed burden from pre-implemented policy. The OTS Complexity Index is made up of two sets of factors that seek to diagnose the underlying complexity (and if this is necessary or unnecessary) and the impact of the complexity. In terms of impact, the Complexity Index recognises the influence of the capability of the customer.

Consideration might also be given to taking a different slant from the Complexity Index by measuring the underlying perceived complexity and burden within new policy proposals. For example, if the complexity in a proposed policy could be perceived as necessarily high and the capability of the customer segments obliged by the policy is low, the tax authority may want to consider what support provisions need to be implemented to reduce risk to compliance and increased demand on its resources. In addition to the SCM, a qualitative methodology will measure the impact on the customers’ need for certainty and assurance. Figure 5.5 below illustrates how the principles of a qualitative methodology might compare to those of the current SCM.

Figure 5.5. Comparison of quantitative and qualitative admin burden methodology



Source: HMRC (2018), internal material.

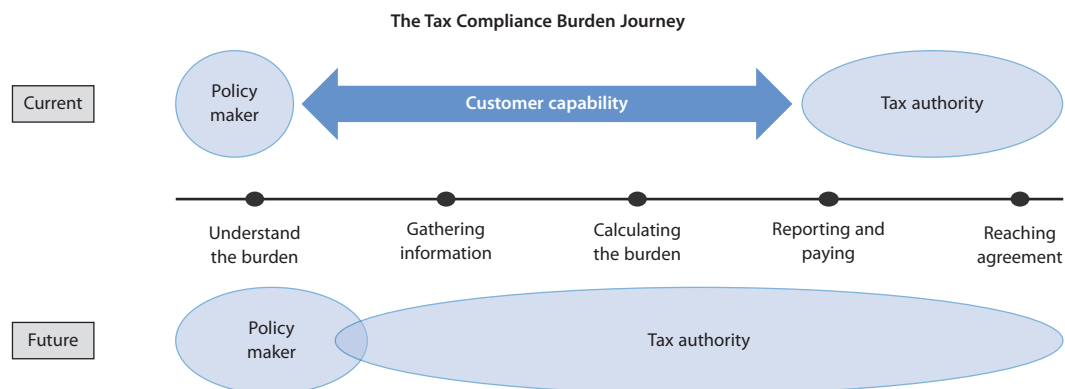
1.5. Compliance Burdens Maturity Model

The survey to identify International best practice in reducing administrative burdens promoted confidence within the OECD on the possibility of featuring minimisation of compliance burdens as a discrete function within their new maturity model initiative. Maturity models are a tool which, combined with other inputs such as the IMF's Tax Administration Diagnostic Assessment Tool,¹ can help to assess the relative maturity of a tax administration against meaningful and clear criteria and in an objective manner. The FTA has already developed a maturity model which has been used to assess digital maturity in the two areas of natural systems/portals and big data. The digital maturity model was introduced in the OECD report *Technologies for Better Tax Administration* (OECD, 2016^[3]). (More background on the use of maturity models can be found in the OECD publication *Successful Tax Management: Measuring Maturity and Supporting Change* (OECD, 2019^[4])).

HMRC led the work on the development of a compliance burden maturity model with support from the Austrian, Finnish, Hungarian, Dutch, Singaporean and Spanish tax authorities. The Compliance Burden Maturity Model, which has been developed and piloted by over 20 tax administrations, covers three aspects of the compliance burden journey. These are: the tax administration's culture; understanding burdens and strategy; and interactions with tax policy makers.

The obligation to ensure compliance with tax rests with those subject to the regulation. Therefore the stages prior to reporting and paying tax often attract considerable burden that is off-set by the capability of the customer. That is why the model seeks to measure how a tax authority considers burdens. The progression of maturity will progress with the increasing level of conscious awareness of compliance burdens and demonstrable illustration of tangible commitments to reduce it.

Figure 5.6. Comparison of current and future support from tax authority across admin burden activity journey



Source: HMRC (2018), internal material.

How compliance burdens are measured is also a key element of the model. Whether burdens are measured pro-actively during policy development or retrospectively after implementation, if at all, are key indicators of maturity. In addition to measuring the maturity in evaluation of burden assumptions, maturity will progress from relying on expert opinion for assumed burdens, employing more sophisticated quantitative methodologies through to measuring the qualitative impact on taxpayer's perception of burden including improving certainty and assurance.

Finally, the increased breadth of coverage across the compliance burden journey for activity to reduce burdens will constitute the higher levels of maturity for tax authorities working to reduce burdens beyond the reporting and paying stage.

The model is included in Annex 5.A1.

Note

1. See TADAT (2019), "Overview", website, www.tadat.org/overview#overview (accessed 18 June 2019).

Annex 5.A1

The compliance burdens maturity model

Explanation and use of the maturity model

The intention of the compliance burden maturity model is:

- To allow tax administrations to self-assess through internal discussions as to where they see themselves as regards maturity in the area of compliance burdens. There is no judgement as to what the optimal level is for a particular tax administration. This will depend on their own circumstances, wider objectives and priorities.
- They can provide involved tax administration staff as well senior leadership of the tax administration with a good oversight of the level of maturity based on input from stakeholders across the organisation. This can help in deciding strategy and identifying areas for further improvement, including where that needs to be supported by the actions of other parts of the tax administration. A number of administrations have reported that cross-organisational conversations when self-assessing can itself prove useful in joining-up different areas of business, helping people to see the scope for synergies and for mutual support.
- To allow tax administrations to compare where they sit compared to their peers. The results of the model will be sent to the Secretariat on an anonymous basis. A “heat map” will then be produced showing where different administrations are, on an anonymous basis. An administration will, of course, know its own level, so can compare itself to other tax administrations. It is also possible for tax administrations to reach out, through the Secretariat, to other tax administrations at different levels of maturity for peer-to-peer learning purposes.

Maturity levels

The model sets out five levels of maturity. These are:

1. ***Emerging***: this level is intended to represent tax administrations which have already developed to a certain extent but which, at least in the area of compliance burden management, have significant further progress they could make.
2. ***Progressing***: this level is intended to represent tax administrations which have made or are undertaking reforms in compliance burden management as part of progressing to the status of advanced tax administrations.
3. ***Established***: this level is intended to represent where most advanced tax administrations, such as FTA members, might cluster.
4. ***Leading***: this level is intended to represent the cutting edge of what is generally possible at the present time.

5. *Aspirational*: the intention of this level is to look forward at what might be possible in the medium term as the use of new technology tools develops and to help to inform strategies. Few tax administrations are expected to be consistently at this level currently although some may be in some aspects.

How to use the maturity model

The model sets out a set of *descriptors* for each maturity level. These descriptors are necessarily in summary form. Looked at by themselves the descriptors may not lead to a considered understanding of why a tax administration is at a particular level of maturity. Nor would it provide much guidance as to how to move between maturity levels.

To assist in the understanding of what a given level of maturity means, a set of *indicative attributes* is also contained under each maturity level. As shown by the term itself, these are indicative attributes and not determinative. Not all of the indicative attributes under a particular maturity level will be present in a particular tax administration. A tax administration may well not fit the full description of a particular attribute. There is no one-size-fits-all that can work. The attributes are therefore intended to help guide discussions rather than determine them. In using the model, tax administrations are asked to consider the *best fit for them*, taking account of both the descriptors and indicators.

A tax administration may find it broadly meets some *Progressing* indicators and some *Established* indicators. It will then need to determine, based on its discussions of the weight it attaches to particular indicators, as to which maturity level it best fits. Hopefully, the information that it may not fit all of the indicators may also provide food for thought about possible areas it may wish to consider further.

In some cases the indicative attributes may be additive across the maturity model and this should hopefully be clear from the context. They will not, though, generally be repeated across maturity levels in order to avoid repetition. Where a tax administration meets a number of indicative attributes within the same row, then its level of maturity within that row will be the highest of the indicative attributes which are met. (For example if *Progressing*, *Established* and *Leading* in one row are all met, then the level of maturity for that row would be leading.)

In general, though, the indicative indicators are intended to reflect what might be expected, in general form, to be in place at a particular maturity level which will differ from the level below (for example be of a different nature, or more demanding).

Compliance Burden Maturity Model

Minimising compliance burdens

This section measures how a tax authority considers the impact of compliance burdens on the taxpayer and their reduction. This broad theme includes acknowledgement and definition of a burden, the culture as regards compliance burdens, how stakeholders and taxpayers are involved in defining and reducing burdens and interactions with policy makers. Maturity in this model is characterised by a move from a largely internal focus on the tax administration's cost, to increasing consideration of compliance burdens on a reactive basis to a more proactive approach to understanding and reducing burdens, including at the aspirational end through the increasing use of advanced technology tools.

Internal focus			Reactive and generic		Proactive and committed	
Maturity levels	Emerging	Progressing	Established	Leading	Aspirational	
Descriptor	Consideration of costs is mainly focused on the tax administration's own costs and changes in compliance burdens are generally a side-product of changes made for the benefit of the tax administration. General guidance is made available although it is fairly static in form.	The tax administration considers compliance burdens in a generally reactive manner with the main focus on increasing e-services and on relationship building with large business. Guidance is updated regularly with close co-operation with tax professionals.	There is a general commitment to reduce burdens with public consultation on proposed measures and options for simplifications. There is increased engagement with tax policy makers on reducing burdens. Customer services are increasingly considered from the taxpayers' perspective.	There is a defined and targeted strategic commitment to reduce the overall costs of compliance burdens with active participation of stakeholders in design and scrutiny of proposed measures. There is growing use of different tools and strategies to reduce compliance burden, and to design processes from the taxpayers' perspectives.	Reducing compliance burdens is a core objective of the tax administration and a core part of the administrations' culture. Increasing consideration is given to supporting compliance-by-design processes and working with taxpayers' natural systems. Advanced technology tools are increasingly used to identify and measure burdens, as well as to suggest improvements.	
Indicative attributes						
Culture	While the tax administration may have a high-level aim to reduce compliance burdens, there are no explicit objectives concerning consideration of burdens. While individual teams may consider ways to reduce compliance burdens, there is no shared culture within the tax administration of minimising compliance burdens and it is not actively promoted by senior management.	The importance of considering and minimising compliance burdens is recognised in general terms in tax administration delivery plans and there may be a general policy to consider burdens when implementing new policies and in compliance choices. There is a general appreciation of the burdens tax administration can impose although consideration of compliance, yield and operating costs are generally seen to take priority over taxpayer compliance burdens.	There is an explicit commitment to reduce administrative burdens but no explicit targets. There are no consequences for failure to meet these commitments (which are on a "best endeavours" basis.) Reduction of compliance burdens is promoted actively by senior management. Primary responsibility for identifying and reducing burdens is placed within a single unit (for example customer services) rather than built into individual teams' objectives.	There is a defined target to minimise compliance burdens for taxpayers (which may be set internally or by government). This is reflected in the objectives of senior management and outcomes are reported publicly. Processes to minimise compliance burdens are supported by senior management with measurable objectives assigned to individual teams and projects.	There is an explicit objective to minimise compliance burdens through changes to the way tax is administered, accompanied by appropriate strategies and commitments. There are ambitious and measurable medium term targets. There is an organisation wide culture on the importance of understanding and minimising compliance burdens. Responsibility for minimising burdens is shared by all tax administration functions and features in delivery plans and subject to regular reporting.	
Understanding burdens and strategy	Stakeholder engagement on burdens is limited to specific high-profile issues which have a political impact. In general the impact of tax policy is measured in terms of the impact on the operating costs of the tax authority.	Understanding of high-level quantitative burdens is captured through occasional ad-hoc informal consultation with external professional and expert stakeholders and some large businesses.	Quantitative impacts of tax policy changes on compliance burdens are published for public consultation. Generic customer service surveys provide information on perceptions of compliance burdens among different taxpayer segments.	Methodologies and processes are put in place to ensure comprehensive understanding of compliance burdens and perceptions among different taxpayer segments, considering their differing needs and capabilities.	Advanced analytics tools are used to measure quantitative burdens using a wide source of data, including from taxpayers' natural systems. Taxpayer perceptions are measured through a published methodology which looks at variables across sectors, age of business and general assumed capability.	

Maturity levels	Emerging	Progressing	Established	Leading	Aspirational
Understanding burdens and strategy <i>(continued)</i>	Changes to tax administration systems are generally made to minimise the costs or increase the efficiency of the tax administration in securing tax revenue. This may change compliance burdens in a positive or negative way.	In general, assumptions are made about mechanisms to ease burdens on taxpayers as a whole, for example the introduction of e-services in some areas, without significant consultation with different types of taxpayers on concerns and priorities beyond those of large business.	There is are established groups of external stakeholders to engage specifically on the theme of administrative burdens and to identify significant issues, supported by experienced tax administration staff with a good understanding of compliance burdens.	Taxpayers, through focus groups and wider consultation, are directly involved in identifying ways to minimise burdens, both new and existing. This is supported by tax administration staff with expert knowledge in how to measure and reduce burdens. Recommendations are generally made public.	The tax administration supplements the engagement process with data and advanced technology tools to more effectively identify significant issues and derive insights to minimise burdens, both new and existing. There is early engagement of taxpayers to identify issues and co-create solutions.
	Systems and processes are designed primarily with the needs of the tax administration in mind.	There are ad-hoc initiatives to improve service delivery and reduce the compliance burdens of taxpayers (e.g. digitalisation of certain processes), primarily in response to taxpayer feedback.	The tax administration proactively reviews the design of systems and processes to reduce the compliance burdens of taxpayers and to increase options for self-service.	The tax administration regularly reviews the design of its systems and processes to make them more taxpayer-centric. A range of strategies and tools are used to minimise compliance burdens for taxpayers (e.g. pre-filing of returns using third party information, deployment of mobile applications etc.).	There is a clearly articulated strategy for making systems and processes more taxpayer-centric, accompanied by ambitious targets and concrete plans. There is extensive use of advanced strategies and tools to reduce burden for taxpayers and integrate tax into taxpayers' natural systems (e.g. initiatives to make submission of information quick and seamless, use of behavioural insights and design thinking).
Interactions with tax policy makers	There is some discussion by policymakers with the tax administration on the development of new tax policy. Compliance issues are taken into account although tax compliance burdens are not routinely considered.	The tax administration is consulted at a late stage in the development of tax policy and broad assessments of compliance impacts are provided to policy makers.	There is close co-operation with tax policy makers to obtain a common understanding of the implications of new policy for ongoing compliance burdens and alternative options to achieve policy aims.	Compliance burdens are fully considered during the development of tax policy, including for various taxpayer population segments. There is a process for internal and external scrutiny and challenge of excessive compliance burdens pre-implementation of policy.	The tax administration proactively seeks, identifies and recommends improvements to policy that can reduce burdens, supported by the use of advanced analytics and wide engagement with taxpayers.

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Chapter 6

Educating future taxpayers: Teaching taxes to youth in Canada

Sonia Buchanan

Canada Revenue Agency

This chapter highlights some of the work being done by the Canada Revenue Agency to educate children and youth about taxes. Programmes such as these provide the opportunity to reach a significant portion of the population and to help them understand and meet their future responsibilities.

Most countries rely on tax revenue to build infrastructure, provide public services and fund government programmes, so it is important for tax administrations to ensure that taxpayers comply with tax laws. Education is a valuable tool that a tax administration can use to promote an understanding of tax law and the importance of taxes, which in turn encourages compliance. Taxpayer education can strengthen attitudes of commitment to the common good, thereby linking tax compliance to proper citizenship and collective responsibility. Across the world, tax administrations are developing various programmes and initiatives to engage both current and future taxpayers.

This article highlights some of the work being done by the Canada Revenue Agency (CRA) to educate children and youth about taxes. Programmes such as these provide the opportunity to reach a significant portion of the population and to help them understand and meet their future responsibilities.

The CRA administers tax laws for the Government of Canada and for most of the country's provinces and territories. The CRA also oversees various social and economic benefit and incentive programmes delivered through the tax system.

Canada's tax system is based on the self-assessment principle, meaning that Canadians are responsible for filing an income tax and benefit return every year to report their income and calculate the amount of tax they have to pay. The CRA offers free educational products to help Canadians better understand the tax system, benefit programmes, and taxpayer rights and obligations. Over the last 50 years, the CRA has created many educational tools and initiatives for all Canadians, not only for those earning taxable income.

6.1. Educator-led products

In 1970, the CRA launched two educator-led products for high-school and post-secondary teachers who want to introduce their students to tax basics with tools that are easy to teach and understand.

6.1.1. Teaching Taxes

Teaching Taxes is a product that equips students with basic knowledge about taxation and promotes financial literacy. Topics include the history of taxes in the world, the basics of taxation, why we pay taxes, how taxes are used, the rights and responsibilities of a taxpayer, the Taxpayer Bill of Rights, employment and taxes, and filling out an income tax and benefit return.

Teaching Taxes provides 180 minutes of classroom instruction and exercises suitable for high-school and post-secondary students. The product can be taught as part of subjects such as economics, accounting, business, mathematics, consumer education, and social studies. More than 2 000 Canadian teachers ordered the Teaching Taxes kit during the 2017 to 2018 school year.

Table 6.1. Learning about taxes

Module I	Module II	Module III	Module IV
Students will learn about; a statement of earnings, deductions from pay, how tax revenue is spent, sales taxes, history of taxes	Students will learn about; Canada's tax system, if they have to complete a tax return, ways to complete a return, what happens after a return is sent, where to find tax information.	Students will learn about; their responsibilities, Canada Revenue Agency's responsibilities, their rights.	Students will learn what a T4 slip is, completing a return online, what to include with a return, where to get help with your return.

Source: www.canada.ca/en/revenue-agency/services/tax/individuals/educational-programs/learning-about-taxes/learning-material.html.

6.1.2. Responsible Citizenship and Canada's Tax System

The Responsible Citizenship and Canada's Tax System course explores the relationship between income tax and quality of life and provides students with basic knowledge on how to comply with the law and why it is important to do so.

Topics include where your tax dollars go, your rights and obligations, and the impact and pitfalls of participating in the underground economy. Students learn about the tax roles of different levels of government, the services each provides, and how this affects daily life. They learn to analyse a municipal government budget and how to create their own personal budgets.

Students also learn about public services they use in everyday life (clean water, roads, public parks) and which level of government pays for them. Educators can choose and customise from 180 minutes of classroom instruction and student exercises.

These courses provide students with the framework for how to comply with the law and why it is important to do so. In turn, they can help family and friends complete their income tax and benefit return or volunteer with the CRA's Community Volunteer Income Tax Program, which hosts free income tax and benefit return preparation clinics for those with modest incomes and simple tax situations, including youth.

Table 6.2. **Introducing Canada's tax system**

Activity I	Activity II	Activity III	Activity IV
Students will learn why we pay taxes and how they are used	Students will learn which public services they use and enjoy as a result of paying taxes	Students debate the necessity of taxes in Canada	Students will learn about the Goods and Services Tax (GST), and the Harmonized Sales Tax (HST) and what they are paid on

Source: www.canada.ca/en/revenue-agency/services/tax/individuals/educational-programs/why-taxes/canada-tax-system.html.

6.2. Self-learning product

Learning Taxes is a free, 90-minute, self-learning course available online to Canadians of all ages. It introduces Canada's tax system, helps learners understand the basics of taxation, why they pay taxes, how taxes are used, and teaches them how to fill out an income tax and benefit return.

The CRA seeks to cultivate relationships with taxpayers based on trust and co-operation and to promote compliance through education. This encourages Canadians to pay their fair share of taxes and ensures that they receive the credits and benefits they are entitled to.

The CRA also produces several web-based videos to further help Canadians with their tax obligations. These include What's In It For Me, Preparing Your Income Tax and Benefit Return, and Canadian Students and Income Tax.

The CRA also offers an outreach programme which is designed and tailored specifically for Canada's vulnerable population, which includes students and youth. The programme provides information about how to apply for benefits and credits and how to continue getting them. Teachers can request a visit from an outreach officer to give tax-related information sessions, host a booth at an educational event, or deliver presentations and products tailored to specific audiences.

Table 6.3. **How to do your taxes**

What is a T4 Slip?	If you Do Not Get your T4 Slip	Ways to File a Return	Auto Fill My Return	Completing a Return Online
Students will learn how to fill out a T4 slip as if they were an employer. They are provided with the information required to complete a T4; the business name, employee name, SIN, tax year, province of employment, CPP or QPP contributions, EI contributions, EI premiums, union dues, income tax paid etc.	Students learn what to do if; they do not receive a T4 slip, can a tax return be completed without a T4 slip, how to calculate total income without a T4 slip.	Students learn about; ways to file a tax return, tax preparation software, tax preparation services, and filing a paper return	Students learn about the CRA's Auto Fill My Return service.	Students learn how to complete a tax return online using tax a preparation software.

Source: www.canada.ca/en/revenue-agency/services/tax/individuals/educational-programs/tax-101/how-do-taxes.html.

6.3. Online tools and services

Younger generations are definitely more comfortable with web-based tools and carrying out a wide variety of their daily activities online. The expectation of online functionality is a reality faced by many businesses and cannot be ignored by tax administrations. *My Account* (Government of Canada, 2019^[1]) and *My Business Account* (Government of Canada, 2019^[2]) are two of the CRA's online tools that allow taxpayers, businesses and employers to view their information and send documents to the CRA quickly, easily and securely from their computer or phone.

The CRA has created a series of webinars (online seminars) for various groups, including students and international students studying in Canada. The webinars contain valuable information for students, including how to determine their residency status, how to file an income tax and benefit return, what records to keep, and which credits and benefits they may be entitled to.

6.4. Social media channels

The CRA has established a set of robust social media channels in its YouTube, Twitter, and Facebook accounts that aim to engage and inform stakeholders, particularly younger audiences, with both specific and broader messaging. This includes messaging ranging from jobs with the CRA, to tax credit information, to changes of address, to finding the nearest tax services office.

6.5. Back-to-school campaign

The back-to-school period from late August to early September presents an opportunity for the CRA to communicate with students and help them prepare for the upcoming tax filing season. For many students, the back-to-school period is an important life event associated with planning, organising, spending or even relocating to attend classes or begin a new job. Since students are already organising themselves for the school year, they are likely to be receptive to information about how they can organise their tax season as well.

At this time of year the CRA communicates information about credits and deductions for students and which supporting documents they should have on hand to claim their education-related expenses. The CRA also promotes their online services and resources, such as *Learning About Taxes* (Government of Canada, 2019^[3]), so that students will be better prepared for tax season.

This year's campaign used a multimedia approach that included new campaign pages, social media, short promotional videos, and tax tip articles. The CRA also sent an email containing important tax information for students to over 500 stakeholders who regularly work with students and youth.

The CRA publishes *Guide P105, Students and Income Tax* (Government of Canada, 2019^[4]), available online throughout the year.

6.6. Financial Literacy Month

November is Financial Literacy Month. The Financial Consumer Agency of Canada, a leader in financial literacy, helps co-ordinate the efforts of, and increase collaboration between, organisations from the private, public and non-profit sectors to strengthen the financial literacy of Canadians. This is a unique opportunity for the CRA to promote a number of its youth-focused initiatives, including the benefits of opening a tax-free savings account, learning about taxpayer rights and responsibilities, and learning how to file an income tax and benefit return. The CRA uses a multimedia approach to target students, including social media with rich visuals. The CRA also sends an email with financial literacy information and resources to over 1 000 stakeholders who regularly work with students and youth.

6.7. Conclusion

Overall, the CRA has found that early taxpayer education is one of the most powerful ways to promote and encourage compliance for generations to come. Additionally, these initiatives show how education can connect a tax administration to its citizens by building trust and increasing public engagement.

References

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- Government of Canada (2019), *My Account for Individuals*, www.canada.ca/en/revenue-agency/services/e-services/e-services-individuals/account-individuals.html (accessed on 18 June 2019). [1]
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Chapter 7

Educational initiatives of the National Tax Agency

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The importance of tax education activities to promote voluntary tax filing and payment by taxpayers, in addition to spreading general knowledge of tax and the maintenance of proper and fair taxation, was recognised in Japan in the late 1940s. The National Tax Agency (NTA), which was established in 1949, has been actively engaged in tax education from the outset. This chapter summarises the work being done by the NTA since then, both directly and through other stakeholders and institutions.

7.1. Background

Japan adopted a self-assessment tax system in tax reform of 1947. During the initial stage of the system implementation, there was a certain degree of under (or no) reporting since an official-assessment tax system was employed until then. Taxpayers were not familiar with the practice of bookkeeping at that time and Japan was in a severe economic environment immediately following the end of World War II. Such under (or no) reporting resulted in a significant number of tax corrections that caused confusion in the field of tax administration.¹ In view of this situation, the importance of tax education activities to promote voluntary tax filing and payment by taxpayers, in addition to spreading general knowledge of tax and the maintenance of proper and fair taxation, was recognised. The National Tax Agency (NTA), which was established in 1949, has been actively engaged in tax education from the outset, starting with the publication of supplementary teaching material for tax education aimed at high school students in 1950. This included organising tax education classes for younger people, held at educational institutions such as schools.

The importance of incorporating tax education programmes as part of school education has continued to be recognised. Since 1963, the Commissioner of the NTA had been requesting the Administrative Vice-Minister of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) which is in charge of educational administration, to include tax-related content as part of the “National Curriculum Standards”. (These standards are established by MEXT and taken into account by elementary, junior high and high schools when designing their educational curriculum). In response to those requests, during the latter half of the 1960s and 1970s, “Responsibility to Pay Taxes” and “Significance and Role of Tax” were incorporated for the first time into the “National Curriculum Standards,” and became a part of text books, leading to the enhancement of tax education during the process of school education.

The importance of tax education, led by the NTA, was also increasingly supported at the local level. This was first seen in Kumamoto Prefecture in 1958 where the importance of tax education starting with the younger generations won the support of educational institutions and the local tax administration. The Liaison Council of Schools Commissioned with Tax Education (This is now known as the Local Council on Promotion of Tax Education, hereinafter referred to as “the Local Council”) was founded in co-operation with the NTA and these organisations. Starting with this case, “the Local Council” began to spread on a national scale. Currently there are 772 councils which have been established, fulfilling a central role in tax education in Japan to this day.²

In Japan, the Certified Public Tax Accountants’ Association as well as relevant private organisations³ which are founded by taxpayers, also play important roles in the promotion of proper tax filing and payment under the self-assessment tax system and the spread of tax knowledge. The contribution of these organisations also extends to the area of tax education.

7.2. Fundamental policy

In 2010, as a part of the effort to facilitate tax compliance, initiatives to enhance tax education were set out in the Outline for Tax Reform of FY2011,⁴ which was approved by the Cabinet. The Outline emphasised that: “Proper understanding of the role of tax, the significance of the self-assessment tax system and the rights and obligations of taxpayers by the citizens of the nation, and their proactive thoughts as a members of society regarding

how society should exist, are important to the formation of their satisfaction with regard to tax payment and the maintenance and development of a democratic nation.”

The basic policies of the initiative are set out as follows:

- Enhance tax education not only during the elementary and junior high school stages, but also during high school and university levels, just prior to becoming an adult member of society.
- Consider knowledge-enhancing activities for people who are responsible for tax education including teachers.
- Society as a whole shall be engaged in tax education, and relevant government offices and private organisations shall work together.

7.3. Project structure for promoting tax education

Based on the above cabinet decision, in November of 2011 the Central Council for Promoting Tax Education (hereinafter, referred to as “the Central Council”) was founded with the objectives of strengthening the degree of co-operation among the relevant ministries at the central government level and of promoting tax education aimed at young generations by society as a whole. “The Central Council” is comprised of the NTA, the MEXT (which is in charge of educational administration) and the Ministry of Internal Affairs and Communications, which is responsible for local tax administration. “The Central Council” co-operatively undertakes consultations and research on how to enhance tax education at each educational stage in elementary, junior high and high schools and universities, and also the knowledge-enhancing activities for people who are responsible for tax education, including teachers. Nowadays, promotion of tax education in Japan is being advanced through co-ordination among “the Local Council” and “the Central Council,” and the NTA is fulfilling an important role as a member of both of the Councils.

The Japan Federation of Certified Public Tax Accountants’ Associations, which had been actively participating in the tax education programme since earlier days, became a supporting member⁵ of “the Central Council.” Regional Certified Public Tax Accountants’ Associations (Certified Public Tax Accountants’ Associations at each local level) and other relevant private organisations are also becoming members of “*the Local Council*” in a gradual manner, and the number of members is growing annually.

In such a manner, the NTA is strengthening its ties with other ministries and agencies in central government, regional tax authorities, educators and relevant private organisations, is engaging in tax education and is striving to expand the wider the circle of students taking tax education classes.

7.4. Overview of tax education promotional measures

The specifics of measures to promote tax education being progressed under the above structure are as follows.

7.4.1. Dispatching of NTA staff as lecturers to tax education classes

Tax education classes are one of the programmes which the NTA has been proactively engaged in for a long time. In recent years, lecturers from not only the NTA, but also from the local tax authority, the Certified Public Tax Accountants' Association and relevant private organisations are being dispatched, with the numbers increasing annually.

7.4.2. Development of supplemental text material for tax education

Each member of “the Local Council” prepares and provides supplemental text material to allow for easy-to-understand tax education programmes aimed at elementary and junior high school students. The NTA, as a member of “the Local Council,” actively takes part in this programme. In addition, the NTA develops such materials for high school students. Each supplemental text material is made available on the NTA's official website, and is available to anyone for use in tax education at each educational stage.

Furthermore, the NTA creates and uploads animated videos on its official website and YouTube to convey the importance of tax education to the younger generation in an easy-to-understand way. Out of these, “Marine & Yamato's Sunday in Another World”⁶ is viewed in tax education classes for elementary students, and children who have viewed the material have praised it as it helps them to understand the importance of tax in a simple way.

Table 7.1. **Number of tax education classes held**

Unit: classes, persons

	FY2013	FY2014	FY2015	FY2016	FY2017
Total number of classes	23 659	25 444	26 955	28 675	31 326
Elementary School	17 183	18 131	18 808	19 607	20 392
Junior High School	4 081	4 588	5 194	5 698	6 657
High School	1 585	1 825	2 026	2 328	2 926
College, etc.	810	900	927	1 042	1 351
Total number of lecturers dispatched	29 366	32 271	34 450	37 382	40 863
NTA staff	8 159	8 403	8 313	8 428	9 075
Other than NTA staff	21 207	23 868	26 137	28 954	31 788

7.4.3. Essay contests on the subject of tax

The NTA sponsors an essay contest for junior high school and high school students on the subject of tax. This contest helps to enhance the effectiveness of tax education by increasing students' interest in tax and deepening their understanding of tax matters. The “Essays on Tax” contest for junior high school students is cosponsored by the NTA and the National Federation of Saving-For-Tax Association, which is one of the relevant private organisations involved in tax education. The most outstanding work is awarded the Prime Minister's Prize. The contests for high school students have been solely sponsored by the NTA since 1962, and the most outstanding essays are awarded the NTA Commissioner's Prize.

Table 7.2. **Number of applicants in the tax essay contest**

Unit: works

	FY2013	FY2014	FY2015	FY2016	FY2017
Junior High School Students	583 142	615 230	616 062	629 534	616 072
High School Students	181 500	193 393	199 401	210 468	218 208

7.4.4. *The knowledge-enhancing activities for educators*

The NTA sponsors seminars that focus on social studies teachers in order to increase the numbers of teachers who understand the importance of tax education and to increase the knowledge needed to teach tax education as part of the school curriculum. Senior officials from NTA attend the seminars as lecturers and present information on taxes and the administration of tax. Also, information exchange and co-operative research concerning specific methods of tax education are conducted among the members of “the Local Council” together with exchange of opinions through actual case studies.

7.5. Conclusion

In Japan, the voting age was lowered to 18 through the legal reform of 2015, which has led to a heightening of the importance of citizenship education to develop the awareness of children and students as the foundation of the nation and society. At the regional level, tax education is sometimes associated with citizenship education. The NTA accurately ascertain changes in the needs of educators accompanied by these trends, and strive to design tax education classes and text materials in co-operation with related organisations, experts and relevant private organisations so that children and students may study in an independent and interactive manner in order to be able to learn deeply. The NTA continue to make efforts to broaden the opportunities that children and students learn tax, and enhance content of tax education.

Notes

1. The rate of individual income taxpayers who were subject to corrections reached approximately 70% in 1948 and approximately 55% in 1949.
2. Of the 47 prefectures and 1 800 municipalities that exist in Japan as local public organisations, the Local Council on Promotion of Tax Education has been established in 47 prefectures and 725 municipalities (as of 31 March 2018).
3. Details on related private organisation can be found on page 31 of the English version of the 2018 National Tax Agency Report (NTA, 2018_[1]).
4. The description on tax education can be found on page 6 of the script (Japanese version) of the outline for Tax Reform of FY2011 (www.kantei.go.jp/jp/kakugikettei/2010/h23zeiseitaikou.pdf).
5. In the tax reform of FY2014, “Provision on activities for dissemination and elucidation of tax education and other knowledge” was added to the list of items that must be described

(mandatory description) in the regulations of Regional Certified Public Tax Accountants' Associations and Japan Federation of Certified Public Tax Accountants' Associations.

6. NTA YouTube channel (18 June 2019), “Marine & Yamato’s Sunday in Another World”, www.youtube.com/watch?v=MfkJnr0die4-&feature=youtu.be.

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Chapter 8

Strategies for understanding, engaging and partnering taxpayers to create a socially responsible taxpaying community

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The advancement of technologies and greater digital usage have given rise to more opportunities for systematic data collection and analysis. This enables tax administrations to better understand the needs and preferences of their taxpayers, and to develop policies and processes which are designed right from the start.

Engaging taxpayers is essential to attaining a high level of voluntary tax compliance. The scope of engagement can be wide – ranging from providing the right service to meet taxpayers' needs, to taking the right actions at the right time. Such collective transactional interactions form taxpayers' perception of tax administrations, e.g. whether they see tax administrations as being supportive and helpful to them. This in turn determines to a large extent their desire and ability to meet their tax obligations voluntarily.

There is also much scope for co-creation and partnership with taxpayers. Tax administrations today see great value in working with taxpayers to shape social norms that embrace the right taxpayer values.

This chapter describes the strategies of the Inland Revenue Authority of Singapore to understand, engage and partner with taxpayers to create a socially responsible taxpaying community.

8.1. Developing an accurate and holistic understanding of taxpayers

With technological advancements come new social norms that lead to changes in the expectations and needs of taxpayers. Tax Administrations can no longer rely on one-off efforts to determine taxpayers' needs and preferences. Rather, they should develop strategies that would enable them to continually keep pace with the evolving needs of taxpayers.

There are now more opportunities for systematic data collection and data analysis. Design and Analytics have emerged as the two powerful tools which tax administrations can use to gather a holistic view and accurate understanding of their taxpayers.

8.1.1. Design

Design refers to the process of developing a product or service from the taxpayer perspective. It involves acquiring a deeper understanding of taxpayers' experiences and needs. This can be done through planned sessions such as user interviews, customer journey mapping and usability testing to gain insights in designing a particular product or service. The objective is to ensure that the final product or service resolves taxpayers' pain points, and provides them with an enhanced experience.

Design is not only an enabler for effective engagement, but also a process for co-creating a product or service with taxpayers.

Digital services are now widely used and fast becoming the main mode of service. Tax administrations could consider applying Design in the review of platform choices and the planning of digital services so as to achieve better taxpayer satisfaction.

Box 8.1. IRAS revamped its myTax Portal to improve taxpayers' online experience

In the early stages of the project, IRAS conducted iterative rounds of usability testing to understand taxpayers' online usage patterns at myTax Portal through the use of prototypes. Each prototype represented a possible final outcome of the revamped myTax Portal. Taxpayers' feedback on the prototypes were used in deciding the final enhancements.

By engaging taxpayers early, IRAS was able to identify the enhancements that would improve taxpayers' online experience and incorporate them in the system requirements. This is an example of having the right design from the start which should reduce the likelihood of costly downstream system changes and ensure that the final product would meet taxpayers' needs. The revamp increased taxpayers' satisfaction rate of myTax Portal from 30% to 90%.

To develop a pervasive taxpayer-centric culture, IRAS has set up a framework which encourages the systematic consideration and use of User Experience Design, and trained a group of officers in Design.

IRAS also piloted the New Company Start-up Kit with around 3 500 companies in February 2018. This was an idea that arose from the small businesses service design project. IRAS engaged taxpayers, tax agents and other government agencies to design a digital interactive on-boarding tool for start-ups, providing them timely, bite-sized information tailored to their filing requirements. The feedback has been positive, and IRAS is now planning to scale it up to incorporate the requirements of the Accounting Compliance and Regulatory Authority (ACRA) for filing of financial statements. IRAS won the Singapore Public Sector Pro-Enterprise Initiative Award in 2018 for the on-boarding tool.

8.1.2. Analytics

Analytics allows the use of data to provide tax administrations with a more holistic understanding of their taxpayers.

Up until a few years ago, tax administrations primarily used transactional reports to identify trends and issues. Today, more sophisticated yet easy-to-use analytics tools are available. With the extensive use of information technology systems to provide services to taxpayers and to perform processes, a large amount of structured data is being collected. When properly analysed, this data can provide valuable insights into taxpayers' needs and preferences.

An example of an analytics tool is a dashboard that provides an integrated view of taxpayers. It does so by combining selected data from various data sources and enabling visualisation in a manner that can be easily understood by the user. This integrated view of taxpayers is a useful starting point for tax administrations to identify specific taxpayer segments that need additional attention. It can also help a case officer to quickly understand an individual taxpayer's circumstances.

In recent years, tax administrations have ventured into applying Analytics on unstructured data, for example data which comes from email correspondence with taxpayers. The analysis of such data could help tax administrations shed more light on how they could engage and intervene on issues proactively.

Box 8.2. Text mining to analyse taxpayers' email enquiries

IRAS has used text mining to analyse taxpayers' email enquiries. Powered by Natural Language Processing, the text mining tool processes and contextualises the email enquiries. It then collects the unstructured data via structured matrices which are used by analytics tools or models to derive insights.

Email text mining has helped IRAS to gather insights in understanding the policy impact and efficacy of targeted initiatives. It has also helped to improve productivity by replacing the manual tracking of emails.

IRAS has embedded analytics into the Goods and Services Tax (GST) refund process as well. This allows more accurate upstream risk assessment of refunds through analysing the behavioural patterns of taxpayers. In processing refunds, greater attention is placed on taxpayer segments that are identified to be at higher risk of non-compliance.

With the use of Design and Analytics, tax administrations can develop a deeper understanding of taxpayers, and better determine when and how to engage them effectively.

8.2. Engaging taxpayers in the right way and at the right time

To be effective, tax administrations have to deal with the proper balance of engagement – by providing the right service to meet taxpayers' needs and taking the right actions at the right time.

Box 8.3. The service mantra of IRAS

The service mantra of IRAS is “No Need for Service is the Best Service”, which defines the ultimate goal of enabling taxpayers to meet their tax obligations without requiring their involvement. This ambition reflects the need to go beyond merely converting manual processes to digital services, and to focus on reducing processes that require inputs from taxpayers. The final goal is to provide taxpayers with a taxpaying environment that is fuss free and low in compliance cost.

8.2.1. Digitalisation

Digitalisation provides tax administrations with new ways to engage taxpayers in the right way and at the right time.

The pervasiveness of digitalisation has shaped taxpayers to have higher expectations when it comes to the types of digital services that tax administrations should provide.

A number of tax administrations have made a foray into the use of new digital conversational services such as chat-bots and virtual assistants. These services are automated and can operate 24/7, providing non-stop convenience to taxpayers. They strive to close the gap between human and machine by receiving and replying to enquiries as a tax officer would.

Box 8.4. Virtual Assistant “Ask Jamie”

Across government agencies in Singapore, the Virtual Assistant Ask Jamie is offered as a digital service. Ask Jamie leverages its Natural Language Processing engine to understand the questions typed by the public and respond appropriately. Should a question be too complex to be answered in the first instance, Ask Jamie will respond with a question to seek further inputs from the user. The collective set of inputs will enable Ask Jamie to return an appropriate answer. IRAS has enhanced Ask Jamie with APIs developed by IRAS to allow taxpayers to authenticate using SingPass (a national 2-factor authentication mechanism) so that it is able to handle personalised queries relating to their tax matters. Taxpayers can also chat online with tax officers if the replies from Ask Jamie are not able to adequately address their enquiries. The replies from tax officers are used to further train Ask Jamie. In FY2018, Ask Jamie has handled about 630 000 enquiries from taxpayers.

To reduce taxpayers’ compliance burden, tax administrations are aiming to reduce unnecessary or repetitive transactional engagements with taxpayers, for instance, by pre-filling tax information from reliable third-parties. With less transactional engagements to handle, tax administrations can focus on more in-depth engagements and co-creation opportunities with taxpayers.

Box 8.5. Introducing an instantaneous tax assessment process

IRAS has cut down the amount of manual filing and payment required over the years through its No-Filing-Service and banks’ General Interbank Recurring Order (better known as GIRO) for payment. IRAS’ next step is to introduce an instantaneous tax assessment process so as to provide a seamless digital engagement experience for taxpayers who file online.

Box 8.5. Introducing an instantaneous tax assessment process *(continued)*

With the introduction of the instantaneous Notice of Assessment, taxpayers are able to view their tax assessments and make payments immediately after submission of their tax returns online. This provides taxpayers with greater certainty on their tax obligations, and reduces the risk of non-compliance.

8.2.2. One Public Service

From the perspective of a citizen, tax administrations are but one segment of the Public Sector. Very often, a citizen needs to interact with various agencies that cut across the Public Sector.

Digitalisation alone will not meet all the engagement needs of taxpayers since they may also need to interact with other public agencies. The provision of a meaningful selection of cross-agency services in a single location, whether it be in the digital or physical space, would thus provide much value to taxpayers.

Box 8.6. One Public Service

Singapore aims to have One Public Service to serve the public in a convenient and holistic manner.

In the digital space, there is more opportunity for collaboration in terms of information sharing so that the public do not need to repeat information across agencies. MyInfo is an example of One Public Service to serve as a one-stop repository of an individual's information e.g. income, housing, contact details from both government-verified and user-provided data.

In the physical space, IRAS has recently set up an integrated taxpayer and business service centre to provide a one-stop service for taxpayers and businesses. Some of the services for businesses include registration of new businesses, setting up of corporate digital identity, guidance on assistance schemes and enquiries on tax matters.

To build a socially responsible tax-paying community, tax administrations may wish to deepen their relationship with taxpayers to include opportunities for co-creating new services and ideas, and interactions through regular focus groups.

8.3. Engaging taxpayers as partners

Developing a partnership between taxpayers and tax administrations is advantageous in many ways. It builds trust, which is the foundation for tax administrations to simplify processes and adopt more risk-based approaches, and for greater willingness and voluntary compliance on the part of the taxpayer.

8.3.1. Co-creation opportunities

Tax administrations should consider finding opportunities, for example through “Hackathons”, to co-create solutions with taxpayers.¹ This gives taxpayers a sense of ownership in advancing tax reporting and collection methods, and ensures that the final solutions are taxpayer-centric. In addition, collaborations with the community to innovate will help tax administrations to be nimbler in developing better and more current services to engage with taxpayers and to foster better relationships.

Box 8.7. Application Programming Interface Marketplace

To facilitate co-creation with the software development community on digital tax solutions, IRAS launched the Application Programming Interface (API) Marketplace which is a community platform for software developers to access IRAS’ services or data for the creation of tax-related services. IRAS believes that collaborating with developers will enable rapid adoption of APIs developed by IRAS, and lead to the development of meaningful, effective and taxpayer-centric digital solutions.

API allows integration of tax seamlessly into the natural systems of taxpayers. Examples of such services are direct transmission of Goods and Services Tax (GST) returns and transactions listings and seamless ACRA (Singapore’s corporate registry) and IRAS filing for small businesses using XBRL (a freely available global framework for exchanging business information).

Note: For more information on APIs see OECD report *Unlocking the Digital Economy – A guide to implementing application programming interfaces in Government* (OECD, 2019^[11]).

8.3.2. Taxpayer representative bodies

Tax Administrations should look at having regular two-way communications with taxpayer representative bodies to obtain timely feedback and convey key messages effectively. Some examples of such communication platforms include regular feedback panels and project-based focus group discussions.

Such partnership engagements develop a stronger relationship between taxpayers and tax administrations, build trust, and lead to better taxpayer-centricity of tax services.

Box 8.8. The Taxpayer Feedback Panel

In IRAS, the Taxpayer Feedback Panel (TFP) serves as a structured and regular communication channel to engage the taxpayer representing bodies to gather feedback or seek consultation on IRAS’ processes, services and initiatives.

Recently, IRAS partnered the industry in a “Study of the Tax Ecosystem and Practices in Singapore”. This involved a holistic review of the tax ecosystem and recommendations to build a robust and vibrant tax ecosystem that would better service the current and future needs of Singapore.

8.4. Monitoring and making continuous improvements

When tax administrations move into digitalisation and apply analytics in tax processes and administration, it is important that their impact and effectiveness are monitored. A robust feedback loop will also ensure that gaps and inadequacies are identified, and further improvements can be made. In this regard, it is important to have effective feedback channels for taxpayers to provide their views and suggestions.

Box 8.9. Focus group discussions and surveys

In Singapore, Focus Group Discussions (FGDs) and Surveys were held amongst selected stakeholders from various sectors of the industry. This leverages on the knowledge and expertise of external stakeholders to provide actionable feedback on tax administrations' services.

Beyond the needs of current taxpayers, tax administrations should also look to the future to see how they can better serve taxpayers of tomorrow. This will require imagination, experimentation and innovation, underpinned by close partnership with taxpayers.

Note

1. A hackathon is usually a one day or two days event which brings together software developers, designers, end-users and other experts to collaborate and co-create IT solutions. It builds a close partnership with the community.

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Chapter 9

“Virtual Assistant” for VAT

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Tax Agency, Spain

“Artificial intelligence” opens a new horizon for Tax Administrations to develop strategic approaches to management and data collection. It can play an important role in improving efficiency to face the main challenge of appropriate governance with limited resources, in particular human ones. In Spain, this has become a reality with the “Virtual Assistant”.

This project, which began in April 2017, has allowed the Spanish Tax Agency to provide information to the taxpayers by solving frequently asked questions automatically, freeing up tax officials to work on more complex issues.

In the first stage of this project, the Virtual Assistant provided information about a single aspect of VAT, on-line VAT Books. Due to the good results obtained, in the second stage, the scope is expanding to the whole topic of VAT.

This chapter describes the implementation process, the problems faced and the solutions adopted as well as some reflections about future management and organisational challenges.

9.1. Background

On 1 July 2017, an important modification of the Value Added Tax (VAT) regulation came into force in Spain which led to a radical change in the management of this tax, the so-called “Immediate Provision of Information”, “Suministro Inmediato de Información” in Spanish (SII). After this date, large businesses, VAT groups and SMEs that make monthly VAT returns, must maintain their VAT Record Books in the Spanish Tax Agency’s (AEAT) electronic office (i.e. a platform that allows taxpayers to process administrative formalities the whole year without interruptions) via the online sending of the invoice details.

In the new system, the information that must be provided on the invoices is a lot more comprehensive than in the traditional Record Books, which only identified the client or provider, the number, date and amount of the invoice, the taxable amount, rate and the amount of VAT payable. The Record Book of e-invoices required by the SII to be maintained within the AEAT Electronic Headquarters also contains, among other details, the classification of the operation documented on the invoice, including whether it is subject to VAT and if any exemption is applicable as well as the type of invoice – distinguishing whether it is a full, simplified or amended invoice – and whether any special regimes are applicable. The Record Book of e-invoices contains not only the amount of VAT payable but also the corresponding deductible VAT, indicating if the reverse charge procedure or any special regimes have been applied. All of this information is registered using specific fields which for companies involves a broader knowledge of the system and the VAT itself in order to not make mistakes.

When the new SII system was introduced there were many questions and concerns expressed by business regarding the new content requirements, the short deadline for sending the information (generally four days from the issuance of the invoice), as well as various IT issues arising from adaptations needed to their accounting systems. The Management Department of the Spanish Tax Agency, aware of the complexity of the system, undertook a large-scale information campaign in order to ease implementation. This included consultation with business, the creation of links to information about the SII on their website, including to over 100 frequently asked questions (FAQs), and the introduction of a new mailbox where businesses could address their queries to SII specialists. This information campaign started on 1 January 2017 with the development of a pilot in which a group of volunteer companies participated.

At first, the average number of daily questions made to the new mailbox did not exceed 50, which allowed them to be replied to in a period of less than seven days. However, this figure increased in the run up to the coming into force of the SII 1 July, reaching over 200 questions a day, a high number bearing in mind that the taxpaying group subject to the SII was made up of 62 000 companies.

The large volume of queries, together with the scarce number of specialists in the SII that could respond to them caused the Spanish Tax Agency Management to opt for *artificial intelligence* as a means for being able to meet this demand for information automatically. This enabled them to assign the specialists in the SII, who are highly qualified staff, to more complex tasks such as the regulatory development of the SII, meetings with business sectors affected by the measure or the provision of informative talks.

In this context, in April 2017, work began for the creation of a Virtual Assistant that would respond to the key questions posed regarding the SII. This project, which began as

a solution for the high workload generated around the introduction of the SII, soon became an instrument that would revolutionise the way in which the taxpayer receives information.

9.2. Cooperative relationship between the Spanish Tax Agency and a multinational supplier

The Spanish Tax Agency’s virtual assistant works with the artificial intelligence (AI) technology created by a multinational supplier. This has resulted in a co-operative relationship between AEAT and the supplier with the purpose of carrying out a project of great interest for both. On the one hand, for the Spanish Tax Agency due to its pioneering nature in the field of Spanish and even European Public administration and, on the other hand, for the supplier given the complexity of the questions that were going to be addressed, which are not comparable to other “*chatbots*” that are currently in use in the market.

The initial working team, created in April 2017, has a mixed composition from two points of view:

- It included experts in tax and technology.
- It integrated staff from the supplier along with staff from the Spanish Tax Agency.

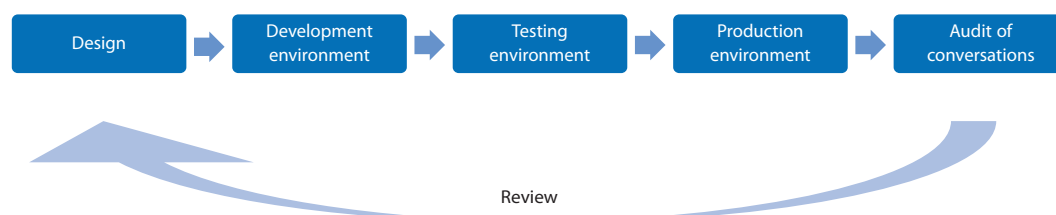
In this way, the project began with a small team made up of two programmers and an IT architect led by a business development manager from the supplier, a programmer from the Spanish Tax Agency and a tax inspector specialising in the SII. The **mixed composition** of the team is key to the success of the project given that this type of technology requires a broad knowledge, not only of the tool, but also of the subject or “domain” on which the virtual assistant will have to provide information. Therefore, it is essential that an expert in tax “teaches” the Virtual Assistant and drafts the content on the tax or procedure in question that is going to be incorporated. It is also necessary that this expert in tax has basic knowledge of how the AI technology works in order to provide this content in the clearest possible way to the programmers, who in turn will learn from the subject as they make progress in the creation process of the Assistant.

9.3. How does the Virtual Assistant work?

The cognitive AI technology is characterised by its understanding of people’s natural language and its ability to learn from the information that it captures. This enables the virtual assistant, after a learning and training process, to offer answers on a certain subject following questions posed by the user through a conversation.

Figure 9.1 identifies the different stages in the creation process of the virtual assistant for VAT.

Figure 9.1. Stages of the creation process of the virtual assistant for VAT



1. **Design:** the starting point consists of compiling all the possible questions that taxpayers might have regarding a certain subject. In the case of the SII, the analysis of the emails received in the query mailbox made it possible to find out which were the most frequent questions. This information can also be provided by the offices or by the call centre services, that is, by the channels through which information services are usually provided to the taxpayer. Proper functioning of the Assistant can only be ensured when it is known what information is required.

The next step is to draft answers that solve these questions. In many cases, a direct response cannot be offered, but a conversation will be necessary between the Assistant and the taxpayer to define the question and choose, out of multiple answers that address a certain question, the specific one for the case in question. These conversations will be carried out through decision trees which consider the different situations that may be encountered in practice.

Example: The taxpayer poses the following question: “How do I record an operation in the SII?” The response depends on several variables, that is the type of operation, place of establishment of the client or provider, whether it is subject to VAT and the application of any exemptions. Once the taxpayer has answered the different questions posed by the Assistant, the latter will gather all the information and select from the possible answers the one which solves the case at hand.

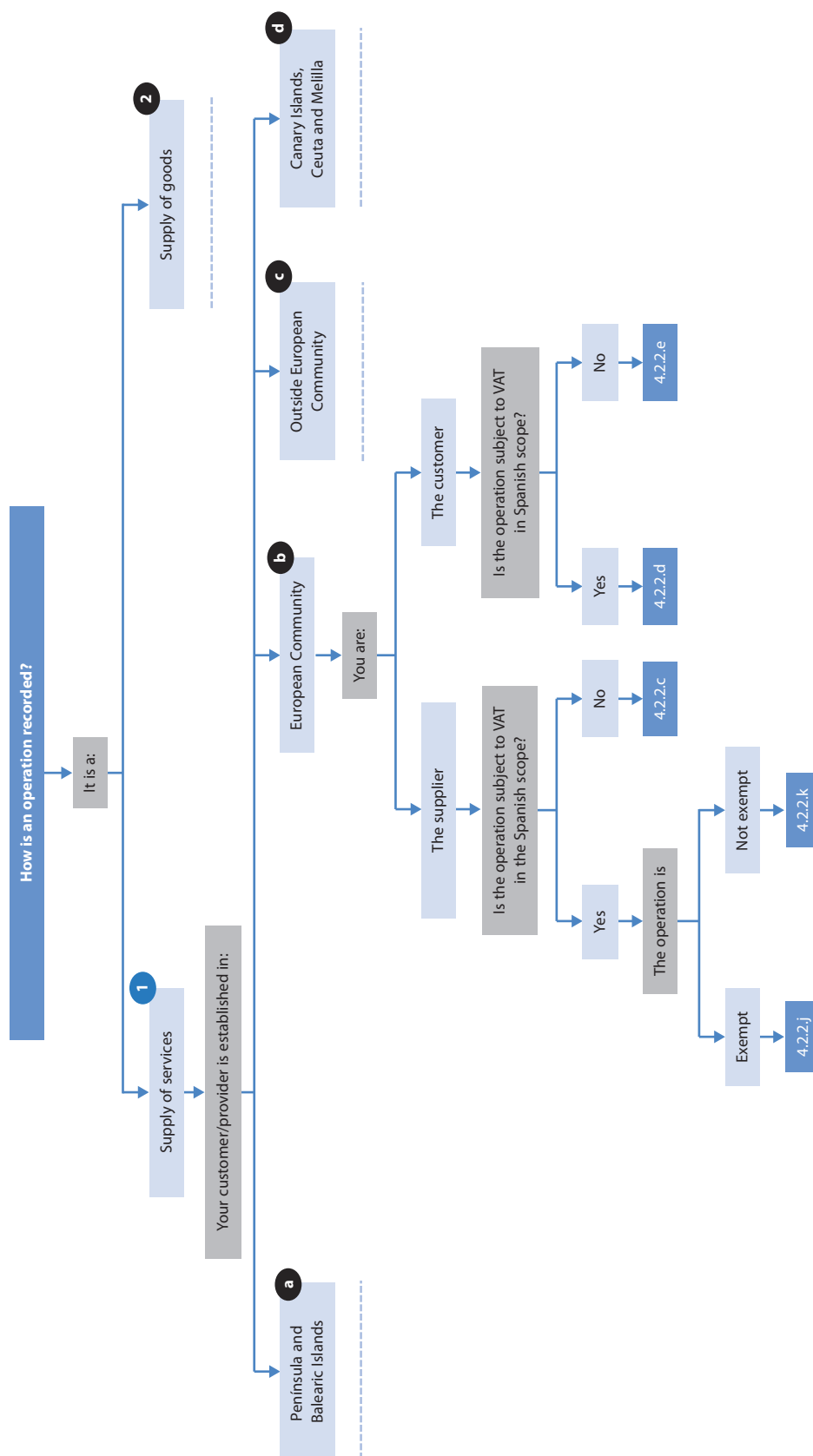
An extract of the decision tree corresponding to the conversation is included in Figure 9.2.

2. **Development:** once the different decision trees have been implemented, the next step is “training the Assistant” through the formulation of sets of questions in order to check that the conversations work properly. This training is carried out by the original team working on development of the Assistant supplemented with two more programmers and four more VAT specialists.
3. **Tests:** after verifying that the Assistant works properly, the latter is tested by people who have not participated in its creation. They are tax officials who are part of the information services and specialise in a certain tax, in this case VAT. Their comments are borne in mind and may result in a modification of the initial trees and texts.
4. **Launch:** after passing the testing stage, the Assistant is made available to the public on the webpage of the Spanish Tax Agency through a specific icon. At the end of the conversation, the taxpayer can rate whether or not the answer was useful to them and send suggestions for improvements. In the event of offering a positive rating, they will be allowed to print the answer. If the rating is negative, a form will open for them to send their question by email to be answered by a tax official.
5. **Audit of the conversations:** reviewing the conversations offers valuable feedback for assessing and improving the quality of the service, in particular those in which the Assistant has not provided an answer or the latter has been negatively rated. The AI technology allows you to incorporate on-line corrections as they are carried out.

9.4. Problems faced and solutions.

The main problems which the Spanish Tax Agency has had to deal with during the launching of the Virtual Assistant, and their solutions, are set out below.

Figure 9.2. Extract of a decision tree



9.4.1. Duration of the design and training stage: launching in blocks

The biggest challenge presented by the implementation of a Virtual Assistant to respond to complex questions, such as in the case of the online recording of invoices, is covering all possible cases and scenarios. This involves the drafting of a greater number of responses than any FAQ document since, otherwise, the taxpayer will pose their question and the Assistant will not be able to offer a reply with the consequent dissatisfaction of the user. In the case of the SII, the FAQ document published compiles 223 questions whilst the Assistant replies to 591, almost triple.

The process to incorporate the information into the Assistant’s knowledge will take longer the more effective and comprehensive the Spanish tax authority want it to be. For example, to obtain a successful response percentage of over 90% of the questions posed may involve years of work depending on the complexity of the subject. In the case of the SII, being limited to the subject of VAT, the duration of the process was six months with a working team of six people dedicated to the project on a full-time basis.

Bearing in mind that on most occasions, governing bodies need to have results in the short term in order to assign resources to a certain project, the solution adopted for launching the Assistant in the least time possible without diminishing its efficiency was to **launch it in thematic blocks**. The analysis of the SII, even though it was a specific subject on VAT, was divided into sections (who needs to apply it, deadlines, recording of operations, recording of invoices, correction of errors etc.). After the Assistant was “taught” and “trained” on each thematic block it was launched to the public.

Additionally, this progressive launching allowed for both demand for the tool and its effectiveness to be measured which also helped to avoid technical problems that may have arisen had the tool been launched for mass use at one time.

9.4.2. Expectations of the taxpayer: welcome message

The creation of false expectations by taxpayers as to what the tool can do is another problem that must be addressed. If the Virtual Assistant is advertised without giving any type of warning, the user may think that they can ask any question and if they do not get a response they may react against the tool, possibly discounting its use in the future. To avoid this situation, the Spanish Assistant includes a welcome message where the following points are clarified:

- ***Automatic nature of the reply.*** It is important that the taxpayer is aware that they are not talking to a person.
- ***Legal consequences of the reply offered.*** In Spain, only the Directorate General for Taxes can issue responses that are binding for the Administration, therefore, in the same way as with information provided over the telephone or in offices, the response will not be legally binding. However, if you act in line with the criteria indicated, you cannot be punished.
- ***Content that it can provide information about:*** this of course must be limited to the field of knowledge of the Assistant and it is stated clearly which subjects it can provide information about. By way of example, the most frequent questions or “trending topics” addressed by the Assistant will be shown.

9.4.3. Negative rating: audit of the conversations

Despite the broad informative content included in the Assistant's knowledge, it is possible that the user will not receive a reply because it has not been anticipated or the answer does not fit their case. With the aim of improving the functioning of the Assistant and correcting unsuccessful conversations, the Spanish Tax Agency has developed an application that compiles a history where all the conversations held with the Assistant are saved along with the date, time, email address of the enquiring taxpayer and their rating (useful/not useful). This application allows an audit of the conversations to be carried out and the necessary adjustments to be made so that in subsequent queries the Assistant offers a satisfactory response.

9.4.4. Complex questions: supplementary tools and response from a technician

Certain questions cannot be addressed using the Assistant, either due to their complexity or because the casuistry is such that to select the correct response, it would be necessary to ask the user so many questions that the latter would leave the conversation before reaching the response (a high percentage of conversation abandonment has been observed after the fifth question posed by the Assistant).

Through analysis AEAT was able to identify areas where the Assistant was unable to answer questions regarding the deadline for recording invoices in the SII, since the taxpayer requested specific dates, and questions related to the place of supply of goods and services.

To solve this type of question, two supplementary tools were designed: the "deadline calculator" and the "Locator". These tools do not use artificial intelligence so the taxpayer will not be able to freely ask a question. Instead, they will have to select, from a drop-down menu, different variables until they get to their specific case and receive a response.

Lastly, if the question is so complex that neither the Assistant nor the supplementary tools can solve it, a form will be made available to the user where they can send their question to a technician who will analyse it. This **Assistant + Technician** combination is one of the fundamental pillars of the success of the service since the taxpayer will get a response in each case, either automatically at the very moment they pose the question or after a few days, via email with human intervention.

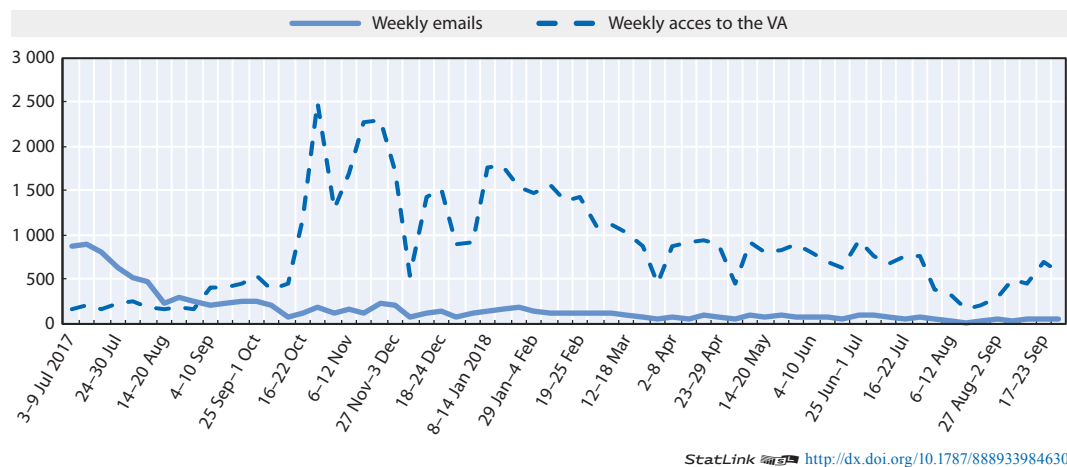
9.4.5. Maintenance and updating of the Assistant: Documentation

As mentioned above, the content incorporated into the Assistant must be sufficiently broad in order to guarantee its effective functioning. This creates a problem from the point of view of its maintenance and update bearing in mind the frequent changes in regulation. The orderly documentation of all the responses and decision trees will be key when facilitating these tasks.

9.5. Results obtained and future prospects

The results obtained with the Virtual Assistant of the SII have exceeded expectations, achieving a decrease in emails received in the new query mailbox of over 90%. After reaching highs that exceeded 500 daily uses, the average access to the Assistant has stabilised at 150 uses per day carried out by a group of 62 000 taxpayers in total. The queries made to the supplementary tools reached 1 500 daily uses in the case of "Deadline calculator" and 500 in the case of the "Locator".

Figure 9.3. Comparative Virtual Assistant and mailbox SII



Based on the satisfactory results obtained, the Spanish Tax Agency is planning an **online assistance strategy**, through the expansion of the Assistant to subsequent subjects, starting in 2018 for the whole of VAT. In June 2018, the Virtual Assistant for VAT on foreign trading went into operation which contains almost 400 responses and work continues with topics related to modification of the tax base, rectification of VAT charged and deductions.

Currently, the Spanish Tax Agency’s Virtual Assistant, named “AVIVA” by the acronym of Virtual Assistant and IVA (VAT in Spanish), is not set up as a mass query tool. However, it has a number of benefits that make it a new information channel whose possibilities deserve to be explored.

From the taxpayer’s point of view, the advantages are:

- 24-hour immediate response
- Interactive information as opposed to the static information of FAQs
- Greater legal security when offering a standard response to any taxpayer who asks the same question. Responses can be saved or printed unlike information provided over the phone.

From the point of view of the Administration, the main benefits are:

- **Measuring of results and quality of information:** the number of uses of the Assistant and the rating from the users offers sufficient feedback to assess the functioning of the service.
- **Identification of the information needs of the taxpayers:** the analysis of the conversations allows for the identification of the topics that generate more questions, the receipt of suggestions or warning of the existence of difficulties when carrying out a certain procedure.
- **Exploitation of the data obtained from the conversation history:** the drafting of statistics based on the user profile (large company, small and medium enterprises, consultancy company, freelancer, public entity) and the topic of the query allows for the measurement of the tool’s efficiency as an instrument for encouraging voluntary compliance.
- **Source of knowledge for the staff of the Administration themselves:** the use of the Assistant does not need to be limited to taxpayers. It has been set up as an easily accessible database for the whole organisation.

9.6. Conclusion

The Spanish Tax Agency strongly supports this new information channel. It has strengthened the working team which is currently made up of five programmers (three of them belong to their IT Department) and four technicians specialising in VAT, along with the corresponding co-ordinators.

However, the challenges that it faces are not only technical but also organisational, given that in the future it will be necessary to create a new profile of job roles for experts in this type of technology.

The substitution of face-to-face information services in offices for a self-help online service will allow for the redeployment of personnel to other information channels (telephone and internet) and even control tasks, thereby optimising resources.

The Spanish Virtual Assistant is an initial prototype and, given the possibilities that artificial intelligence offers, there is still a long way to go. Its initial use, though, proves the commitment of the Spanish Tax Agency to making it easier for the taxpayer to fulfil their tax obligations with the most innovative services.

Chapter 10

Behavioural insights for tax administration

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Alicia Miller (United States Internal Revenue Service) and
Ronnie Nielsen (Danish Tax Administration)¹

As tax administrations seek to address longstanding compliance issues like closing the tax gap amidst modern challenges and greater complexity, new innovations in behavioural sciences are producing promising results by looking at old issues in new ways. At the core of tax administration and tax compliance, we are seeking to encourage compliant behaviours and deter behaviours which lead to carelessness, unintended errors or evasion. Behavioural insights provide tools to improve our understanding of why taxpayers behave the way they do and what will efficiently and effectively motivate them to take the desired actions, given their situation and circumstances. The consideration for how behavioural insights can apply to more areas is paving the way for innovative thinking for yet further prospective applications. The Forum on Tax Administration (FTA) has addressed the behavioural component to tax administration in publications such as “Understanding and Influencing Taxpayer Compliance Behaviour”, “Right from the Start”, and “Compliance by Design.” In this article we introduce behavioural insights and showcase its relevance and application to tax administrations in the context of organisational operations and strategies while highlighting some illustrative examples.

10.1. What is behavioural insights?

Behavioural insights (BI) is an interdisciplinary field of research using principles from the behavioural sciences such as psychology, neuroscience, and behavioural economics to understand how individuals absorb, process, and react to information. These principles can be applied to design practical policies and interventions with human behaviour in mind. At the foundation of the behavioural insights perspective are several key principles, as outlined in the United States Internal Revenue Service (IRS) Behavioural Insights Toolkit, primarily:

- People are faced with more decisions and information than we can consciously process.
- Much of our behaviour is unconscious and in response to our surroundings.
- Humans are social beings who care what others think and do.

As much of tax administration relies on some form of voluntary compliance by taxpayers and third parties, understanding the factors that help taxpayers to get it right, and that promote appropriate issue resolution when they do not, is fundamental to designing effective policies, supports, and treatments. Evidence-based testing of “what works and why it works” enables a better understanding of root causes to determine effective treatments. Likewise, continuous testing ensures relevance with changing policy priorities, economic conditions, and taxpayer behaviours.

10.2. Behavioural insights applied to tax administration

Tax administrations have employed a variety of techniques to bring taxpayers into compliance. Tools and services to encourage voluntary compliance are coupled with enforcement methods that penalise noncompliance and help deter future noncompliance. Analytics have enabled tax administrations to develop risk models to help focus limited resources on the highest risk taxpayers. By combining analytics with behavioural insights, tax administrations can further enhance their capabilities to improve compliance, services, and internal operations. Behavioural insights contributes knowledge and techniques to understand both the underlying reasons for behaviours and means to change these behaviours that can contribute to both short and long-term compliance and improved operations to promote compliance.

One of the earliest applications of behavioural insights to tax compliance used modified communications to “nudge” taxpayer behaviour to reduce non-filing, improve accurate reporting, and increase payments of balances owed. Efforts to understand the root-causes of non-compliant behaviour combined with knowledge of effective nudges and tools for changing these behaviours have enabled tax authorities to achieve desired compliance outcomes through efficient and cost-effective means in letter campaigns, calls, and digital communications. For example, Her Majesty’s Revenue and Customs (HMRC) in the United Kingdom has collected significant amounts of additional revenue at very low cost by applying social norms to tax debt letters. By adding the statement “9 out of 10 people pay their tax on time” in the context of the country as a whole, the taxpayers’ postcode, or the taxpayers’ home town, HMRC successfully increased payments by up to 15 percentage points, from 67.5% to 83% on the best performing letter. Similar successes can be found across a range of tax authorities where behavioural insights have since been applied to a broader spectrum of service and compliance issues.

In the 2017 edition of the Tax Administration Series, Katie Clair described behavioural approaches to tax debt management including the use of penalty nudges in letters and calling campaigns across several tax authorities (OECD, 2017^[1]). These techniques have been effectively employed beyond filing and debt management to other areas of importance today. The Norwegian Tax Administration used behavioural design principles to effectively increase foreign income reporting.

Box 10.1. Increasing foreign income reporting

The Norwegian Tax Administration conducted a field experiment on more than 10 000 taxpayers who were likely to have underreported foreign wealth in the previous tax year. These taxpayers were randomly assigned to either a control group that did not receive any letter or one of two treatment groups that received identical behaviourally-informed letters, sent electronically or on paper. The tax administration sent each letter just before they were required to self-report their foreign wealth and found that the provision of information about how to properly report resulted in a substantial increased self-reported foreign wealth. This suggested that some taxpayers may be underreporting due to lack of information and knowledge about how to properly report. Strikingly, the average amount of self-reported foreign wealth by the taxpayers who received the paper letters was higher than in the group with electronic letters. The results indicated the group with a paper letter reported 33% more wealth, a 25% higher proportion of the population reported and they were 80% more likely to contact customer service with questions about offshore wealth. Results indicate that while there are many benefits to communicating electronically, tax authorities should still consider paper letters in some segments. If messages are complicated or directed toward vulnerable groups, paper should still be considered as a relevant communication strategy.

Source: Norwegian Tax Administration (2019).

Having seen concrete evidence of results with nudging individuals, tax authorities are now exploring what levers best move organisations. The Inland Revenue Authority of Singapore sent reminder letters highlighting the consequences of not filing taxes on time to newly-incorporated companies, which tend to be less aware of tax matters. The new letters emphasising loss avoidance resulted in a 6.5 percentage point improvement in the proportion of newly-incorporated companies filing on time, as compared to the original reminders. In Denmark and Australia, prompts are used in their digital filing interfaces to alert taxpayers to inconsistencies, such as notifying that a claimed deduction is outside the expected range. These types of messages have proved effective in reducing inattention and discouraging inaccurate reporting.

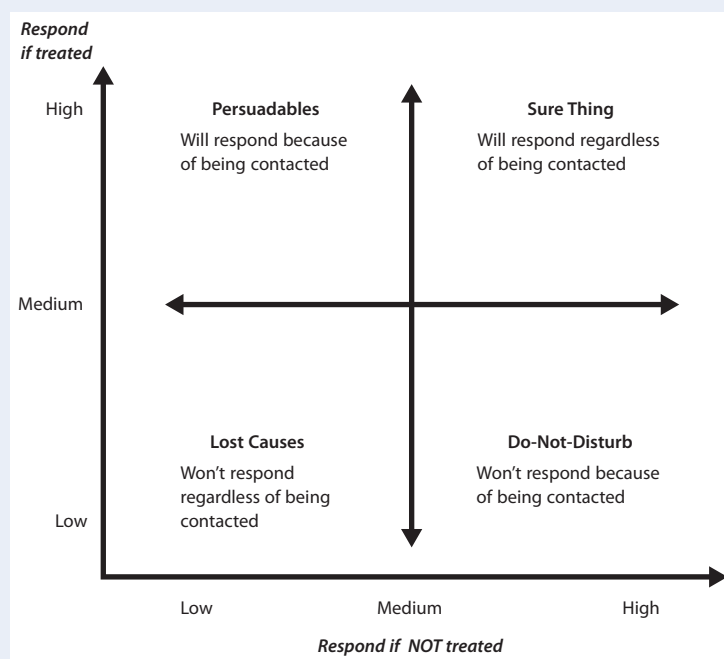
Box 10.2. Moving taxpayers online and testing uplift modelling

In Ireland, the Office of the Revenue Commissioners trialled a technique called Uplift Modelling which identifies how different types of taxpayers respond to the same treatment and enables tax administrations to focus on those whose behaviour it can influence. Revenue mailed 39 000 taxpayers who had claimed tax relief on medical expenses using a paper form the prior year, while not mailing 6 000 such taxpayers randomly selected. By then comparing the characteristics and behaviours of those who then made online claims, they developed two models, one predicting the probability of moving online after receiving a letter, and a second predicting the probability of moving online without receiving a letter. The difference in the

Box 10.2. Moving taxpayers online and testing uplift modelling *(continued)*

two scores indicates the probability of moving online because of the letter. Taxpayers who were predicted to be in the high response category had an incremental response rate double that of the other taxpayers. This opportunity afforded a successful proof-of-concept for applying uplift modelling in tax administration.

Figure 10.1. Uplift model framework



Source: Ireland – Office of the Revenue Commissioners (2019).

These examples show how carefully framed messages can improve compliance. Another burgeoning area of behavioural research uses tax administration data to identify populations that will be most likely to respond to treatments, which can inform resource allocations for greater returns. In Ireland, the Office of the Revenue Commissioners used uplift modelling to identify taxpayers most likely to make an online tax relief claim after being contacted. The Inland Revenue Authority of Singapore (IRAS) also combined BI and rigorous analysis to focus its compliance efforts on high-risk taxpayers. Techniques such as these can aid tax administrations in their efforts to optimise resource allocation.

Box 10.3. Encouraging tax payments through outbound calls

IRAS complemented the use of BI with analytics to encourage taxpayers to pay their overdue taxes as early as possible. IRAS built predictive models to identify taxpayers with high payment compliance risk, before incorporating uplift modelling to select and contact taxpayers who were more likely to respond to interventions, i.e. outbound calls. This approach enabled IRAS to focus its compliance efforts on the high-risk taxpayer group and to apply BI interventions strategically to achieve greater impact and efficacy.

Box 10.3. Encouraging tax payments through outbound calls *(continued)*

IRAS conducted a randomised controlled trial to test and understand the effect of incorporating BI in the existing call scripts to encourage tax payments. The BI calls included elements such as “priming” to get the taxpayer to pay his overdue taxes earlier by anchoring his expectations to a reference point, e.g. “As your tax is overdue, we need you to pay as soon as possible. Are you able to make full payment by today?”. IRAS also tapped on the BI concept of “plan-making” to encourage taxpayers to come up with a plan, which included setting reminder prompts, as a form of commitment to settle their tax matters.

The BI calls resulted in an 11.1 percentage point improvement in the proportion of taxpayers paying their overdue taxes on time, as compared to the original calls.

Figure 10.2. Combining the use of predictive analytics, uplift modelling and BI interventions

		Payment compliance risk		
		High	Low	
Likelihood to respond to interventions	High	Target group – High payment risk and high likelihood to respond		Other interventions were applied on this group of taxpayers
		Control group	No calls	
		Treatment group 1	Original calls	
		Treatment group 2	BI calls – included elements such as “priming” and “plan-making”	
Low	Other interventions were applied on this group of taxpayers		Other interventions were applied on this group of taxpayers	

Source: Inland Revenue Authority of Singapore (2019).

Moving beyond the application of messaging used in controlled trials, tax administrations have begun applying behavioural insights to more sophisticated designs of systems to reduce taxpayer burden and minimise opportunities for noncompliance. Designs such as pre-population of forms and using defaults contribute to simplifying the process and encouraging accurate reporting – in short, they “make it easy.” The Nordic countries have a longstanding practice of pre-populating tax returns, a concept that has also been taken up by tax administrations around the globe. More recently, the Chilean Tax Authority extended this to pre-populating value added tax returns based on data from electronic invoices. Additional efforts to move more toward defaults have generated even more sophisticated designs. The Danish Tax Administration piloted a new variation of automating compliance by locking about two dozen line items on the return for individuals covered by comprehensive and accurate third-party data, as random audits showed that leaving them open for editing only contributed to error. The Canadian government implemented amendments that allowed Canada Revenue Agency to calculate the Canada Workers Benefits (a refundable tax credit that supplements the earnings of low-income workers and improves work incentives for low-income Canadians) even if the taxpayer does not apply for it.

It is estimated that 300 000 low-income workers will benefit from this change. When looking beyond tax administration, a common example from the use of defaults is automatic enrolment in retirement plans, which has led to significantly higher rates of participation and greater retirement savings. In one study, participation rates nearly doubled, from 47%

under voluntary enrolment in retirement savings programmes to nearly 93% with automatic enrolment (Clark and Young, 2018^[2]). Further research on the application of these concepts to tax administration can promote a better framework for when these designs work best and how to apply them.

Internal operations provide a third area where behavioural insights can add substantial value. In the United Kingdom, the HMRC's behavioural unit redesigned debt management call centre guides using behavioural principles and applied change management approaches to implement these new procedures in call centres. The guides made it easier for new staff, and call operators were 20% more likely to agree to a "time to pay" arrangement with upfront payments. As another example, the State of Lower Saxony in Germany began piloting co-operative approaches to large business audits that employ empathy to build trust and promote intrinsic motivation for voluntary compliance. These approaches also help auditors better navigate conflict situations and manage emotions afterwards in ways that improve their well-being.

As highlighted by the examples above, behavioural insights – together with data analytic and experimental approaches – offer tax administrations an opportunity to think critically about the (often implicit) assumptions underlying their activities. The increased attention on robust change theory (informed by the existing knowledge base) combined with appropriate means of evaluation will drive improvement, as tax administrations gain a better understanding on what works in different circumstances. The benefits extend beyond improved compliance and reduced costs, as tax administrations will be better able to explain and justify their strategies and actions to taxpayers and stakeholders. Behavioural insights thus draw attention to the role of trust and legitimacy in nurturing a healthy culture of tax compliance.

Box 10.4. Enhancing empathy and communication toward cooperative audits

2015 survey in Germany showed that one in seven audit subjects rate the climate surrounding audit as tense to aggressive and hostile. To improve this situation, the tax administration of Lower Saxony introduced a new approach by training auditors with conflict-free procedures and constructive, goal-oriented communication tactics for large-taxpayer business audits. These approaches are applied to traditional audits for companies undergoing annual audits which may simultaneously have future years audited, either at the request of the taxpayer or recommendation of the auditor who perceives greater likelihood of compliance. Research has shown voluntary compliance increases when there is greater trust and faith in the system. The co-operative approaches promote empathetic and positive communications with authenticity and greater transparency. These are intended to promote trust between the auditor and audit subject with two-fold results: they can help auditors encourage better compliance interactions with the audit subject, while also creating a better experience for auditors. The climate can be less stressful and subsequently reduce risk for stress-related health issues.

Source: Tax Administration of Lower-Saxony (Germany), Office for Taxation (Landesamt für Steuern) (2019).

While deterrence is an important component of any compliance strategy, tax administrations are increasingly taking note of research findings showing that audits and sanctions can damage voluntary compliance when applied indiscriminately or in ways that are otherwise perceived as unfair. This is illustrated by the experience of the Inland Revenue

Board of Malaysia where compliance strategies were rebalanced after excessive reliance on audits was found to be counterproductive.² These dynamics are eloquently captured in the “slippery slope” framework developed by Erich Kirchler, which suggests that tax administrations need to apply balanced strategies in order to achieve sustainable compliance outcomes (Kirchler, Hoelzl and Walh, 2008_[3]).

10.3. Building capabilities for behavioural insights

There is no one recipe for working with behavioural insights in a tax administration context. A variety of potential operating models and skill sets relevant to behavioural insights have given way to different options for staffing and governance models, all of which can be positioned for success. Applicable backgrounds for analysing behaviours have ranged from economists to psychologists to anthropologists to service designers and many others. The field of behavioural insights combines qualitative with quantitative methods to gain a deeper understanding of the human experience and employs rigorous analysis to validate methods of interventions. While some tax administrations have embedded behavioural insights within analytics groups, these approaches have been deployed by individuals not only with diverse backgrounds, but across a range of organisational placements.

HMRC has implemented centralised structures whereby behavioural insights specialists within a singular unit design and execute behavioural experiments. Such behavioural units could be established independently or integrated into an existing analytics unit. Some organisations, like the Australian Taxation Office and the Inland Revenue Authority of Singapore, have created strategies for diffusing knowledge throughout the organisation and enabling project-based applications of behavioural insights. Others, including Canada and the United States, have applied more hybrid approaches. While many employ full-time internal staff to lead this work, others have partnered with academics and external consultants in designing and testing interventions. The United States IRS, for example, partnered with students and professors to explore behavioural responses to changes in its offshore reporting regime as well as to design and pilot new outreach to encourage greater uptake and compliance with refundable credits. Collaborating with academics and research institutions is often cited as an opportunity to increase resources with little cost, bringing in new ideas and perspectives while enhancing credibility. Several tax administrations have found that such collaboration has helped increase rigor and spur innovation.

Innovation networks play an important role in capability building. Internal networks within an organisation facilitate co-ordination, knowledge sharing, and governance. External networks provide independent validation and promote innovation. Large decentralised behavioural insights teams, such as the one at the United States IRS, benefit from a behavioural insights practitioner Community of Practice to share insights and findings across business functions. For more centralised functions like those found in the United Kingdom, this kind of information sharing happens naturally as part of the management of the function.

External to the organisation, behavioural insights innovation networks can be intra-governmental (such as the United Kingdom’s Nudge Unit, the Office of Evaluation Sciences in the United States, or those found in the Canadian Home Office), cross-governmental (both bi-laterally or through multi-lateral organisations such as the OECD), or through collaboration with the academic community. Participation in these external communities provides useful due diligence for new methods via independent peer review along with the cross-pollination of ideas associated with innovation networks.

Across all structural and governance model, support from top leadership and key stakeholders along with appropriate skill sets and resources, is critical to helping behavioural insights take root in an organisation. Continuous learning on behavioural insights can be fostered both internally and externally through professional networks. The field of behavioural insights is part art, part science: while creativity and understanding of human experiences will drive designs, robust analytical methodologies and evaluations can be effective ways to validate findings and identify the best solutions to scale. This should not preclude pragmatic approaches informed by behavioural insights and continuous improvement where testing is impractical or unfeasible. Where behavioural insights principles are applied without a randomised control trial to test the impact – a common occurrence with policy changes – application of quasi-experimental statistical methods can help inform our understanding of the result of the treatment.

Box 10.5. ATO Behavioural Insights Unit

To drive the adoption of behavioural insights, the Australian Taxation Office (ATO) established a dedicated Behavioural Insights Unit in 2016 with the goal of embedding behavioural insights principles and grow capability across ATO. It has delivered measurable improvements to the client experience with minimal resources through the development of a strategic framework, an awareness-raising strategy, a capability development strategy, and an in-house behavioural insights consultancy service.

Strategic framework

ATO uses a distributed model built around a small central Behavioural Insights Unit with 8.5 Full Time Equivalent (FTE) staff. The Behavioural Insights Unit provides advice, training and support to 150 behavioural insights practitioners who apply and champion the principles across all 20 business lines in the organisation.

Awareness-raising strategy

The Behavioural Insights Unit undertakes ongoing awareness raising and engagement activities for ATO staff, other Australian Public Service agencies and international counterparts. The strategy includes:

- a regular staff newsletter, called “The Nudge” (over 2 000 subscribers)
- the creation of the Behavioural Insights Compendium, a collection of over 40 selected completed ATO projects
- a dedicated SharePoint site (10 000+ visits to date), through which staff can access a range of resources including the self-developed “Top 10 tips for applying Behavioural Insights”
- a quarterly Reference Group which enables information sharing and collaboration with over 180 ATO staff
- regular meetings with domestic and international government agencies
- a cross-agency showcase.

Capability development strategy

The Behavioural Insights Unit developed and implemented a comprehensive capability strategy comprising foundational, intermediate and advanced level activities. ATO has developed extensive reference materials and trained over 20% of ATO’s workforce as well as other government agencies.

Box 10.5. ATO Behavioural Insights Unit *(continued)*

In-house behavioural insights consultancy service

The small multi-disciplinary team has measurably improved the community's experience interacting with ATO using a range of techniques, from process re-design to engagement and correspondence activities. In its first two years, the team had assisted with over 180 activities.

Source: Australian Taxation Office (2019).

10.4. Future directions and opportunities

Behavioural insights provide low-cost opportunities to reduce the tax gap and improve tax administration. Some current applications are showing promising results for expansion and growth to address key needs and priorities of today. These approaches can help optimise work processes and transform the relationships between tax authorities and taxpayers. The application of behavioural insights to written taxpayer communications is now showing promise with new applications available to internal employees, such as with the development of behaviourally-informed guides for staff and new guidelines on how to communicate with taxpayers. We will continue to see greater progress in combining behavioural insights with data analytics to analyse taxpayer behavioural responses to interventions that can help inform who we contact, when, and how. Furthermore, these applications can be applied to modern priorities and challenges, for example better understanding as to how best to promote compliance by international and multi-national taxpayers.

Going forward, tax authorities have an opportunity for greater integration of behavioural insights into the strategic objectives of their tax administrations. The question of “Can these methods make a difference?” has been answered affirmatively. The questions now revolve around the extent to which these insights can be generalised and applied systemically in conjunction with other tools to address strategic priorities. Bringing behavioural insights together with digital interfaces, advanced analytics, and service design thinking provides an opportunity to truly transform tax administration and its end-to-end value chain in terms of both efficiency and public service. The examples provided by tax administrations further suggest that the intersections between (1) data & analytics, (2) digital services and administration, and (3) behavioural insights and design is an optimal place to link BI to the bigger transformation agenda. Connecting tax administrations with each other and with behavioural science experts to share ideas and lessons learned is important, as this can amplify the rates of innovation and identify best practices that can evolve with changing taxpayer behaviours.

Notes

1. The authors wish to thank Anne Herlache, Guylaine Robert, Martina Ressmann, and the FTA Behavioural Insights Community of Interest members from Australia, Canada, Ireland, Germany, Malaysia, Norway, Singapore and the United Kingdom for their contributions to this article.
2. The complex dynamics surrounding audits and sanctions are further explored in the “fairness and trust” chapter of the 2010 FTA report “Understanding and Influencing Taxpayers’ Compliance Behaviour” (OECD, 2010_[5]). See also (Mendoza, Wielhouwer and Kirchler, 2017_[4]).

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Chapter 11

A blockchain scenario study

Leon van Rijswijk, Hanneke Hermesen and Rex Arendsen¹

Netherlands Tax and Customs Administration

This chapter illustrates the results of a strategic planning study performed by the Netherlands Tax and Customs Administration. The study employed an explorative scenario planning methodology, to understand the potential impact of distributed ledger technology on society, and ultimately on revenue bodies.

11.1. Introduction

In this chapter, we report an illustration of the results of a strategic planning study performed by the Netherlands Tax and Customs Administration (NTCA). In this scenario study we employed an explorative scenario planning methodology,² to understand the potential impact of distributed ledger technology on society, and ultimately on revenue bodies.

As we are approaching the 2020s, the maturation of a number of so-called disruptive digital technologies offers promises of radically reshaping our society (Brynjolfsson and McAfee, 2014^[1]). Just a few examples of these technologies include the internet of things, machine learning and artificial intelligence, as well as blockchain or distributed ledger technology.

Revenue bodies play a central role in society and are consequently expected to readily adapt to changes in their environment (OECD, 2018^[2]). Yet, while a *modernisation* of existing processes may prove inevitable, these new technologies may also offer opportunities for tax administrations to *transform* current processes to achieve better effects in the long run, particularly in terms of increased compliance and the minimisation of burdens. Taking this a step further, the OECD points out that “the fundamental re-examination of the tax system as a whole goes far beyond simply facilitating existing operations” and puts forward the notion that the successful application of information technology will determine the future success of revenue bodies, both in managing compliance risks and in meeting rising service demands (OECD, 2016^[3]).

It is thus important for revenue bodies to develop a systematic approach to identifying and exploring which (technological) developments may impact society and offer the most relevant potential to impact the delivery of tax services (OECD, 2016^[3]). Embedding such a systematic approach within the revenue bodies’ strategic planning function offers an opportunity to reflect on potential consequences for current and future business processes and to inform a sound (digital) strategy to allow revenue bodies to be prepared for, and to take advantage of, long-term challenges and opportunities (Hanson, Reesson and Staples, 2017^[4]) (IOTA, 2017^[5]).

The aim of this study was to facilitate the strategic discourse within the NTCA with respect to the implications of distributed ledger technology in a tax context. This case study presents the four resulting future scenarios and discusses the strategic implications and options from a tax authority perspective. The methodological approach of the study is described in a recent publication by the authors (van Rijswijk, Hermesen and Arendsen, 2019^[6]).

11.2. Blockchains and distributed ledger technology

A *disruptive technology* may be defined as a technology that provides such radical solutions to existing inefficiencies in a particular ecosystem that it comparatively rapidly displaces established technologies. Blockchain technology may be considered such a potentially disruptive technology. At the very core, a *blockchain* is a network of decentralised computer nodes that collectively run and maintain a shared, identical database. As such, a blockchain is a specific type of distributed ledger. A blockchain database consists of blocks of transactions and each new block of transactions that is recorded into the database is mathematically linked (or chained) to the previous group of transactions, with all network participants verifying the authenticity of each transaction through the shared history of all

recorded transactions. The content of the transactional entries is not limited to financial transactions but each entry may represent any type of information, from personal information to location data or records of financial assets. In essence, blockchain technology offers the possibility to truly *share* information as opposed to merely exchanging information.

There exist many different models, each adapted to specific applications of the technology. The most well-known example is the model underlying Bitcoin, which is a *public* and *permission-less* blockchain model in which everyone who so wishes can participate as a node in the network, download a replication of the entire database and start contributing to it. Other applications operate on more *private* and/or *permissioned* models in which other participants or an appointed authority (a trusted third party) may put restrictions on who is allowed to view the transactions or who is allowed to contribute to the network and database.

Claims are being made that the impact that distributed ledger technology may have on revenue bodies will cover a whole range of activities, from debt collection to compliance risk management and service delivery (Sim et al., 2016^[7]) (IOTA, 2017^[5]). The challenge appears to be in concretely identifying the type of transformations we may expect, how these transformations will manifest themselves, and ultimately in how these transformations will impact on society.

11.3. The scenario narratives

In this section we provide an impression of the results of the NTCA's explorative scenario approach.

The scenarios each present possible and plausible futures. These are outcomes of an interactive design process undertaken together with scientists and business and governmental experts (van Rijswijk, Hermesen and Arendsen, 2019^[6]). Future choices and events will influence the evolution towards (elements of) one of these possible futures; e.g. will permission-less or permissioned models dominate?

Four scenarios are presented. These are:

- **A. Dual Reality:** in which distributed ledger technology is picked up by industry and consumers and becomes a mainstream technology, but government fails to keep up with these developments and struggles with the consequences
- **B. Blocktopia:** in which government provides room for distributed ledger technology to flourish and reach its full (open source) potential
- **C. Govchain:** in which government adopts and drives distributed ledger technology, using it to streamline its processes in permissioned distributed ledger solutions
- **D. Beyond the hype:** in which public trust in distributed ledger technology dwindles and the technology fails to take off.

Each of the scenarios is presented in terms of impacts related to governance models, industry, cryptocurrencies and society. Finally, early warning signals serve as an indication for strategic decision makers that “reality” tends to move towards one particular scenario rather than another.

11.3.1. Scenario A. Dual Reality

Governance

In the years leading up to 2025, developments in distributed ledger technology (DLT) were largely ignored by the Dutch government. Although some pilot initiatives were initiated over the years, government officials became hesitant, failed to invest in blockchain and other related technologies, and accordingly did not adapt legislation and regulations. The government had difficulties determining the course in a new digital world in which there is much uncertainty about which directions the developments might go. Considering that the process of drafting and implementing new legislation and regulations takes considerable time, government is now lagging far behind with regard to DLT. At the same time, a trend is visible in which the Netherlands is slowly moving towards an automatocracy; wherein transactions and interactions in society are becoming more and more automated, the Dutch government is becoming increasingly isolated from these developments. For instance, private parties regularly organise public referenda on topics such as the future of the country or a certain municipality. Currently, the Dutch government has no idea as what to do with the outcomes of these referenda.

Industry

Despite the attitude of the authorities, Dutch industry kept up to date with international developments in DLT. Many enterprises invested strongly in blockchain applications and took responsibility for developing standards and regulatory frameworks, if only to fill the regulatory gap that the authorities left open. These developments have created a rather complicated system. For example, while (international) enterprises complete mutual transactions using cryptocurrencies, they are expected to convert these transactions to the local currency in their national tax declaration.

Cryptocurrencies

Due to the lax attitude of the Dutch authorities, plenty of parties seek the grey area of legislation. Cryptocurrencies are not under the responsibility of a country, a central bank or any other financial regulator and criminals try their best to perform transactions as anonymously as possible. Commonly used cryptocurrencies make use of zero-knowledge protocols that render it impossible to determine who, where and what is paid.

A myriad of Initial Coin Offerings (ICOs) are being used to finance all kinds of projects. Without regulation or control by any authority, investors are hardly protected against fraud and the number of ICO-fraud cases are numerous. However, because of the large profit margins and the success stories of some famous ICO-millionaires, new crypto coins are still highly attractive to potential investors.

Society

Societal trust in and acceptance of DLT is limited, for example given the negative publicity surrounding cryptocurrencies and ICOs. Companies have put the interests of innovation above the interests of reliability and privacy, while DLT criticsers point out the dangers of the rapid developments in quantum computing, which in time might make it feasible to crack DLT encryption. There is also a reluctance regarding the use of smart contracts, given the lack of quality standards and the structural uncertainty of these contracts.

Moreover, an important prerequisite of trust in DLT is that one can trust the identities and titles recorded on a given blockchain. Yet, the lack of options provided by Dutch authorities to formally document identities and titles using DLT has prompted the emergence of private identity bureaus where identity can be registered using DLT, another example of the dissociation of the authorities from services that were typically provided by the government for hundreds of years.

Early warning signals:

- More and more start-ups and large tech companies make use of private blockchains.
- Public authorities do not give much attention to blockchain technology, while the private sector is strongly investing.
- Negative publicity in the media with respect to crypto currencies and ICOs.

11.3.2. Scenario B: Blocktopia

Governance

Following Estonia, the Netherlands was the second European country introducing digital citizenship. This allowed not only the Dutch, but everyone in the world to become a digital citizen of the Netherlands and thus the European Union. This Dutch e-residency attracts entrepreneurs from all over the world who now can trade freely with the European Union.

In the years preceding 2025, legislation and regulations were quickly adapted so that most transactions can now occur digitally. The government tries to eliminate all obstacles that interfere with this process. By providing the framework on which the decentralised system depends, the government holds a strong position in society.

Every European citizen owns a digital identity. However, in order to obtain a digital passport physical identification is still needed by an attestation provider appointed by the government. This digital identity, with a signature of the government, is placed in one's self-sovereign identity wallet, enabling every citizen to maintain sovereign control over their own personal identification data. DLT enables other parties to trust that the identity-related information someone provides corresponds with that recognised by the government.

Industry

The DLT revolution was primarily set in motion by start-ups and innovative small enterprises. Rapid technological improvements of DLT in the areas of energy saving, scalability and security were realised. Open source is currently the standard. Through DLT, the digital content and the transactions concerning the trade and exchange of intellectual ownership run efficiently and safely. In addition, many DLT applications by start-ups and online communities ensure that every type of information is clear and transparent, causing intermediaries such as notaries to become redundant and more and more typical government administration tasks, such as land registries, to be replaced by public blockchains.

Cryptocurrencies

Meanwhile, ICOs have obtained a negative connotation. Stories about scams and bankruptcies are widespread. Only a handful of cryptocurrencies are classified as reliable and safe by the European Central Bank and these are used frequently. Micro transaction payments are now the standard. For example, salaries are paid out and deposited in one's banking account by the minute. In all money transactions, taxes and surcharges are automatically calculated and withheld by the use of smart contracts. The Dutch tax system has changed drastically. Tax declarations are now on the level of transactions and direct profit taxes are based on different tax bases.

Society

The need for a decentralised system that makes it possible to make arrangements and execute transactions with strangers still grows rapidly. DLT offers the solution for making fast and reliable arrangements with strangers without the inefficient intervention of third parties. The technology has shown robustness and is widely trusted. There is, however, a downside in the fact that society now expects that everyone manages their (personal) business through DLT. This has caused a gap between the majority of DLT adopters and the digitally weak. Whilst DLT supporters present DLT as infallible, already some painful cases of citizens that lost their formal identity or part of their possessions have been disclosed.

Early warning signals:

- Blockchain technology is increasingly developing towards a mature technology due to improvements in the area of energy saving and scalability.
- More countries besides Estonia implement digital citizenship.
- (International) authorities or regulators classify certain cryptocurrencies as safe.

11.3.3. Scenario C: Govchain

Governance

The DLT hype in the late 2010s was a wake-up call for the Dutch government, recognising that technology affects all aspects of society and the economy. Keeping pace with DLT developments, government opted to retrain personnel, create room for small-scale experimenting with new technologies in the real world (field labs) and establish collaborations with tech start-ups. The technology has facilitated the streamlining and harmonising of many of the implementation processes of government. Currently, government mainly opts for permissioned public blockchain applications in which various parties and citizens can participate while maintaining government control. Legislation and regulations in the area of security and privacy are adapted accordingly. Evidence from blockchain and smart contracts is now legally valid.

With DLT enabling more up to date and reliable flows of information, the information position of the authorities has improved enormously. This political development is largely supported by Dutch society, particularly because trust in the Dutch authorities is many times the trust in commercial multinationals.

Industry

Most of the established parties, like banks and insurance companies, use DLT for internal process optimisation or the optimisation of the supply chain. Important in this respect is the higher speed of transactions, lower transaction costs and higher security that DLT offers. In the Netherlands, there are many permissioned public blockchain implementations, of which many focus on facilitating (internal) supply chains within companies or within certain industries (e.g. supply chains in the automobile industry). For instance, there are different DLT networks for insurance, banking, car lease and energy contracts. Critical opinion holds that that DLT is merely used to automate processes of existing powerful institutions, instead of transforming the current structures.

Cryptocurrencies

Both on the national and on the supranational level some successes have been achieved with respect to DLT. The Dutch government has introduced the digi-dime which can be earned, for example, by citizens who engage in community work or apply for a job when unemployed. These digi-dimes can then be exchanged for numerous public services. Social benefits are also paid out in special tokens that can only be spent at designated recipients such as childcare organisations or health insurances in the case of day-care and health benefits respectively.

Following the People's Republic of China and the United States, the European Union (EU) has banned ICOs and new cryptocurrencies since 2023. The EU-coin is the only legitimate virtual coin in Europe, which facilitates more efficient and transparent payments between countries. Furthermore, it ensures full control over the financial system by the Dutch Central Bank which prohibits tax evasion and illegal transactions.

Society

Because of the proactive attitude of the government, the societal trust in and acceptance of DLT is large. However, there is a growing group of citizens that worry about the authoritarian policies of the government. They are of the opinion that the government restricts too much of their freedom as a citizen and as a consumer.

Every Dutch citizen has a digital passport which grants access to the digital government systems. This digital identity provided by the government is the only valid identity one may use. In 2021, the first digital national election took place and was a great success. The turnout was higher than ever, the results were 100% reliable and the government could substantially cut back on their costs.

Some of largest law firms employ smart lawyers who are authorised by the government to certify smart contracts. This certificate attests that the smart contract is verified and satisfies laws and regulations.

Early warning signals:

- More and more countries apply DLT as an answer to fraud and black markets.
- Growing interest of the European Union in DLT and growth of the EU Blockchain Observatory, a forum that was launched in February of 2018.
- Introduction of a pan-European cryptocurrency or VAT-token, or a growing number of countries that introduce a national cryptocurrency.

11.3.4. Scenario D: Beyond the hype

Governance

As far back as 2020, the Dutch government has largely ignored DLT and stopped developing knowledge and investing in DLT innovations. One of the reasons for this restraint is that Dutch top managers did not see the urgency of DLT; they simply did not believe that DLT would have the disruptive impact that many predicted during the hype. Interest also dwindled because the many cyber-attacks in recent years demanded so many security measures from the government that there was hardly any investment left for innovation. In addition, there were rising concerns about the fact that developments in quantum computing could potentially prove problematic for the robustness and safety of the technology. Over the years, there was also a strong and successful lobby by traditional financial institutions and well-organised employers' organisations who considered DLT a threat.

Industry

The lack of interest and support by the government caused uncertainty and reluctance among DLT innovators and users. The reports about the Bitcoin blockchain consuming more energy per year than countries like Croatia or Ireland caused reputation damage in a time when climate change was becoming more visible and serious. Solutions for reducing energy use and improving scalability were not found. Whereas you could attend a blockchain technology related conference every week by the end of the 2010s, DLT is currently laughed off by the same experts that back then were convinced that DLT was the future.

Cryptocurrencies

When in October 2020 the Bitcoin exchange rate dropped from about USD 25 000 to roughly USD 2 000, the Bitcoin bubble burst. Speculators immediately cashed what was left of their profit, dropping the rate even further to USD 500 within a week. The Bitcoin crash marked the end of public interest in cryptocurrencies.

Society

A 2020 national referendum backed by a private blockchain application that guaranteed voter anonymity turned out to be traceable afterwards. The leak of votes contributed to the fact that society became even more reluctant to DLT. The many cases of integrity breaches and the worries of the public about privacy and energy consumption were important obstacles to the public adoption and thus the eventual maturation of DLT.

Early warning signals:

- Crash of the Bitcoin or other important cryptocurrency.
- The government pays little attention to blockchain technology and does not make any investments.
- Unlike the quantum computer, innovations with respect to blockchain lag behind. The blockchain technology is overtaken by other technologies.

11.4. Discussion and application

At the core, modern revenue bodies are data processing organisations and, as such, they are vulnerable to disruptive ICT innovations. These innovations are likely to not only effect digitalisation of 20th century batch processes, but also to transform current processes and the way in which revenue bodies operate. In our example, three out of four scenarios show a large impact of a specific technology (DLT) on the taxation relevant domain in society and therefore call for a strategic evaluation in the boardroom.

Surveying the outcomes in the scenarios we presented, some illustrative observations can be made with respect to the question of how DLT may impact taxation. For example, while authorities should not overestimate their influence on the type of emergent innovations to be expected, the chosen approach toward such new technologies when they are still immature may have a noticeable impact on the kind of grip they can expect to have on future developments. For instance, the extent to which authorities provide some kind of regulatory framework or are involved in processes of standardisation may lead to a diverse number of outcomes, including outcomes in which further innovations are fostered and outcomes in which a lack of involvement has resulted in a weakening of the information position of the authorities, including revenue bodies. It seems important then, whether or not one believes that DLT will have a disruptive impact on society, to regularly monitor whether current legislation and regulatory frameworks still adequately cover the most probable scenarios at a given point in time.

Another example of how different outcomes of DLT developments may impact revenue bodies becomes apparent in the variations in the information position that governments have across the scenarios. As mentioned before, the availability and quality of data is of vital importance for today's revenue bodies. Looking at the scenarios, the range in manifestations of this information position resulting from DLT and other societal developments can be quite broad. In scenario A, government essentially lacks a solid information position, losing sight and control of important revenue streams that fly under the radar because they are embedded in technology the government has no access to. By taking a more active role and shaping the necessary conditions in which DLT technology can develop (scenario B), government may retain a sufficient information position and might even play a key role in authenticating information. Taking this a step further in scenario C, by having control over the primary applications of DLT, governments may realise a position of nearly complete information. These different outcomes may have large and dissimilar impacts on taxation. For example, in scenario C government may implement a form of full “no-touch” taxation in which revenue bodies possess all the relevant information and can automatically take funds from relevant transactions to settle tax liabilities. In contrast, in scenario A revenue bodies will probably need to focus their efforts mainly on exploiting the full range of (expensive) instruments and interventions to gather the necessary information for adequate tax collection.

All four of the scenarios provide a number of examples of how the different aspects of taxation may be organised in the future, ranging from “business as usual” and not very different from the way they are currently organised in scenario D, to increasingly more radical transformations of the tax system in scenario B and scenario C. These examples cover a range of taxation relevant processes and domains, such as customs valuations, data quality, compliance risk management and tax services.

Importantly, while the final scenarios can be considered as the main physical output of the scenario study, this output is by no means an end in itself. In fact, in explorative scenario planning the scenarios should be considered simply as the basis for facilitating strategic decision-making.

Notes

1. The work presented in this chapter was executed by the research department of the Netherlands Tax and Customs Administration, in close collaboration with Dutch research agency Futureconsult.
2. Exploratory scenarios are those which attempt to describe a range of future end states that are possible and plausible.

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Chapter 12

Compliance by design: Automatic profit tax return for freelancers – A pilot of the Netherlands Tax and Customs Administration

Jaap Douma and Wessel van Ee

Netherlands Tax and Customs Administration

The Netherlands has more than 1 million freelancers (self-employed persons without employees) that make a significant number of errors, often unintentionally, when complying with their tax obligations. This chapter describes a pilot project by the Netherlands Tax and Customs Administration (NTCA) to introduce an automatic profit tax return for this segment of taxpayers by working closely with software developers. In doing so it explains the structure of this public-private collaboration, how the automatic profit tax return is created and what compliance by design means in practice.

12.1. Introduction

The Netherlands has 1.1 million freelancers (self-employed persons without employees). Most of them want to fulfil their tax obligations but compared to other entrepreneurs of small and medium-sized businesses, they make a lot of errors, often unintentionally errors. To help address this, the Netherlands Tax and Customs Administration (NTCA) has been looking at compliance by design solutions. If there is an uninterrupted chain between the transactions of the freelancer and the submission of the tax return details to the NTCA, the chance of errors decreases, especially when during this process the freelancer receives information about tax rules. In this case, information can be considered by the freelancer in advance rather than after the event. Working together with freelancers and software developers, the NTCA is rolling out a pilot for automatic profit tax returns. This article explains the structure of this public-private collaboration, how the automatic profit tax return is created and what compliance by design means in practice.

12.2. A growing and diverse group of freelancers

Freelancers represent a large proportion of small and medium-sized businesses. It is a group that is rapidly growing and that is becoming increasingly diverse. This is the result of changing employment relationships, shifts in supply and demand and more and more low cost opportunities to run an online and even a cross-border business, for example in the platform economy. This has various consequences in terms of tax interest and risks.

Most freelancers want to fulfil their tax obligations but mostly focus their attention on doing their jobs and can be uncertain of their tax obligations. They often call the NTCA with questions and queries or seeking assistance because they have lost the password they need to log in in order to file a tax return. They make errors in their tax returns and sometimes they file them too late. At times, they also pay too late. Filing no tax returns and making no payments at all happens as well.

These kinds of errors will cause problems for both the freelancers and the tax administration. A tax refund, if any, may be paid too late and a freelancer may be confronted with corrections and fines. In most cases this is unnecessary because most of the freelancers want to do it right and should be able to do so without problems arising with the NTCA.

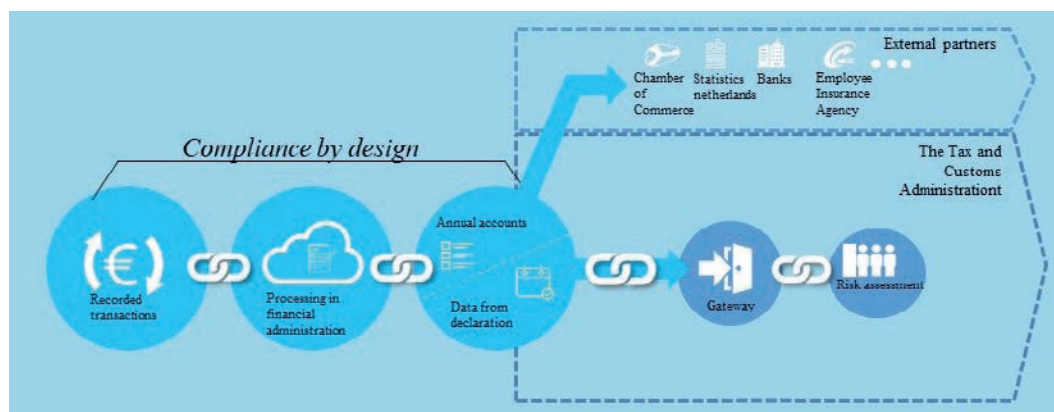
These errors also cause problems for the NTCA. Checking and correcting tax returns, imposing fines and answering phone calls from freelancers takes up capacity. That capacity should properly be spent on entrepreneurs, whether freelancers or those running small and medium-sized businesses, who are less compliant. It is also the strategy of the NTCA to use the available monitoring capacity for the non-compliant group. In addition, correcting tax returns and imposing fines may have a counterproductive effect on the compliant group. Studies have shown that taxpayers display a less compliant attitude when they are faced with a repressive tax administration that shows little understanding of their position.

As a result, freelancers and the NTCA can keep each other busy in a way that does not always have the desired effect. Surely, there is a smarter way?

12.3. Compliance by design: A smart accounting programme

The NTCA has been considering how best to design the tax return process in such a way that it meets the needs of the freelancers and those of the tax administration. For the NTCA, compliance by design through the automatic profit tax return is the answer to that question.

Figure 12.1. Compliance by design: a smart accounting programme



The accounts of a freelancer form the basis for a tax return. If the accounts are in order, there is a good chance the tax return will be correct too. That is the idea behind the automatic profit tax return. If there is an automatic uninterrupted chain, from the transactions of the freelancer to the tax return details received by the NTCA, the chance of errors is small, especially because the freelancer no longer has to enter any details himself, a process that is prone to errors. This process is also set up in such a way that it will prevent errors and mistakes being made by the freelancer.

In a public-private collaboration, software suppliers, freelancers and the NTCA developed a process that results in an automatic profit tax return. The freelancer uses online accounting software. Every transaction is automatically entered in the accounting software. If the freelancer sends an electronic invoice, it automatically ends up in his accounts. If he or she buys something and receives a paper invoice and then scans it with a smartphone, the costs will be added to the correct cost item in the accounting software.

Compliance by design goes one step further. Suppose the freelancer refuels their car and buys a sandwich and use a PIN card to pay. The accounting programme is so sophisticated that it will point out to the freelancer that the petrol is a business cost item but that the sandwich is a private expenditure. The programme suggests entering the petrol under business but not to enter the sandwich. The freelancer can accept or reject this suggestion. The programme may also “know” that the car of the freelancer is not a company car but a private car, for example because the freelancer does not use a car in his or her business. In that case, the programme will not enter the petrol costs as a business cost item.

The standard accounting schedule, the so-called reference ledger schedule, forms the starting point for the accounting software. This schedule contains about 3 000 fields, around 80 of which are relevant to freelancers. In collaboration with the NTCA, software suppliers develop the fields that are relevant to freelancers.

12.4. Compliance by design: Interaction with the NTCA

There are some business costs that cannot automatically be deducted from the turnover. Corporate clothing, for instance, can be deducted only if it bears a logo or company name of certain dimensions. Another example of costs that have both a business and a private component are the expenses for representation and business lunches which are not automatically deductible. Based on quantitative research and tax audits, the NTCA knows which aspects raise questions among freelancers and which are the most common errors made. Together with software suppliers, the NTCA looks at the fields that result in the highest number of questions and queries. This set of fields comes with interactive tax assistance. As soon as the freelancer activates the field and wants to proceed to input the accounts, an “accounting assistant” pops up, outlining the present legislation about this specific subject. The NTCA offers this as content as a service. In order to provide information, the NTCA uses both its own channels as well as offering content-specific texts from external parties, in this case, the software suppliers. It is essential for the freelancer to get the right information which is in line with the financial year for which the tax return is filed. For that reason, this information is stored centrally in a Content Management System (CMS) which is managed by the NTCA. Via a secure link to specific elements in the CMS, the freelancer will see the correct text in the accounting software. This way, he or she is fully aware and can then decide as to whether to enter these costs as business costs in the accounts. The risk of unintentional errors is minimal.

12.5. Compliance by design: The automatic profit tax return

This method forms the basis for an automatic profit tax return that needs very little other action from the freelancer. In the Netherlands, entrepreneurs are obliged to file digital returns for turnover tax and income tax with profits. The majority of freelancers file a turnover tax return every quarter. They can do this automatically from the accounting software. All income, expenditure and VAT paid and received show up in the freelancer’s accounts. The freelancer can file and pay this turnover tax return automatically every quarter by a push of a button. After four quarters, the NTCA has the turnover details for the entire calendar year. At the end of a year, the accounting programme “collects” the data needed for the automatic income tax return for entrepreneurs, the profit tax return.

The profit tax return of a freelancer also contains other details. The NTCA has ample experience with pre-filled tax returns for private taxpayers. Most of these taxpayers file their tax return in a digital format. Their tax returns contain various pre-filled details such as withholding taxes deducted by the employer, the balances of savings and investment accounts and the WOZ value (property tax) of their own home. The NTCA receives this information from parties such as the Employee Insurance Agency and from banks. The automatic profit tax return largely overlaps the pre-filled tax return for private individuals. The only thing is that in the tax return of freelancers, the profits and non-profit component are combined.

The NTCA is planning to test the possibility of allowing freelancers to upload their profit data from the accounting software to the tax return. This is essential as the NTCA has no way of looking in the accounting software from the freelancer. Expectations are that, if this is the case, about 90% of the profit tax return can be automatically pre-filled on the basis of the data used by the NTCA for the pre-filled income tax return for private individuals together with the data from the accounting programme.

The freelancer can then check the profit tax return as well as correct the information in the pre-filled tax returns for private taxpayers. The freelancer will, however, be unable to directly correct the information from the accounting software. This will have to be done in the accounting software itself.

12.6. Promising results

Freelancers who use online accounting software already have the option of filing their turnover tax return directly from the accounting programme, however they make little use of that feature. Observations and qualitative interviews undertaken by the NTCA showed that freelancers feel unsure about the use of this feature. The software suppliers involved in the pilot and the NTCA have now created a flow that is similar to the way in which people make online purchases. Not only will freelancers receive a message that the tax return has been submitted but they also receive a message to say that the tax return has been received by the NTCA. From 2018, the NTCA will carry out a pilot with a representative group of 800 freelancers, not just to file the tax return from the accounting programme but also to pay the turnover tax due immediately via iDeal. (iDeal is an e-commerce payment system used in the Netherlands, based on online banking.) After payment is made, they receive a confirmation that the money has been received by the NTCA. Initial tests show that compared to the original turn over tax return – made via a portal with a separate payment process – it results in a 6% increase in prompt tax returns and payments. Furthermore, the freelancers who take part in the pilot are happy. Over 90% of them name “security” as one of the benefits.

In 2019, the NTCA will conduct a pilot with the automatic profit tax return. One hundred freelancers, originating from the representative group that took part in the turnover tax return pilot, will participate in this pilot.

12.7. Method

To generate the automatic profit tax return, the current ICT situation of the NTCA forms the basic principle. As such, no major adjustments are needed for the ICT landscape of the NTCA. The method is “agile scrum” which means that small steps are taken to achieve the desired situation and if adjustments need to be made, they are made quickly. This pragmatic approach is possible thanks to close co-operation with both the freelancers and the software suppliers. The software suppliers adjust their products and the freelancers can immediately start using them. Every three months, the NTCA holds a survey among the freelancers as to their experiences. The NTCA also looks at its own data. The pilots were preceded by a baseline measurement making it possible to measure whether the tax return filing and payment behaviour of the target group has improved. Based on the surveys held among freelancers and the experiences of software suppliers and the NTCA, adjustments are made and new steps are taken. Anything that works is subject to continued development and what does not work is changed.

12.8. Collaboration with freelancers

The activities for the automatic profit tax return are initiated by “Interactiewerf”. This is a network organisation within the NTCA which serves to improve the interaction between citizens and businesses on the basis of public-private collaboration. Experts from various disciplines, such as concept developers, marketers, communication specialists, ICT

engineers and tax consultants, work together. They look from the outside in. Interactiewerf, for instance, uses customer journeys. The tax returns from freelancers tell the NTCA where most errors are made but not how are these errors made nor how can they be prevented. In order to be able to answer those questions, you need an insight into the behaviour and needs of freelancers. To that end, Interactiewerf conducted qualitative interviews with freelancers and in co-creation with process experts of the NTCA and freelancers, they looked for ways to prevent errors in tax returns.

In general, the NTCA distinguishes three categories of freelancers, white collar, pink collar and blue collar. White collar refers to those with an “office job”, such as consultants and ICT engineers. Blue collar refers to those who have manual jobs such as plumbers, painters or hairdressers. Pink collar refers to those in creative professions such as graphic designers, photographers and those working in the care sector, such as physiotherapists. Among the different collars, there are big differences in terms of fiscal self-reliance and understanding of tax obligations.

The customer journeys and the collar classification help to get to know the target group and in analysing whether the freelancers from these three groups deal with their accounts differently and, if so, whether this requires a different communication method.

12.9. Collaboration with prominent software suppliers

During the pilot for the automatic profit tax return, the NTCA worked together with software suppliers. This public-private collaboration speeds things up and it offers the opportunity to tailor it to freelancers better. The suppliers the NTCA worked with carried the so-called “Zeker-OnLine” (online security) quality mark. This quality mark is based on an accreditation process and a system of standards that was developed in collaboration with various providers of online accounting programmes. These were a legal consultancy firm, NOREA (a professional body for IT auditors), a platform for the information community and the NTCA. The applicability of this system of standards is subject to independent monitoring. For the NTCA, the Zeker-OnLine quality mark is an appropriate specification for the level of security required in order to ensure the pilot was a success. Every provider of online accounting programmes can join the pilot, provided they carry the Zeker-OnLine quality mark. Providers who do not carry that quality mark yet can ask to be accredited via the aforementioned accreditation process.

The majority of freelancers in the Netherlands, almost 60% in total and growing, use accounting software. However, the group using online accounting software is relatively small. About 20% of freelancers use online accounting software that carries the Zeker-OnLine quality mark. This percentage is expected to rise to 35 or 40% by the end of 2019.

12.10. Collaboration with other parties

Apart from freelancers and software suppliers, the NTCA also works together with other parties that have their own particular reason for freelancers to keep correct accounts. They may include the local authorities (a freelancer with financial problems may be faced with municipal debt rescheduling), trade organisations and the Chamber of Commerce. Reliable information about freelancers and their turnover is relevant to Statistics Netherlands too. Furthermore, banks have an interest in reliable financial information, for example when they issue business credits or mortgages.

At least as important is digital security. That is why the NTCA works alongside parties such as the Platform for Digital Collaboration and the Ministry of Economic Affairs. The underlying idea is that safeguarding digital security – for instance, by increasing awareness among citizens and entrepreneurs and by making sure that norms and standards in the chain are a given – is in the interest of the entire country.

12.11. What are the follow-up steps?

A number of follow up steps are planned:

- In the future, the intention is that the freelancer will be able to use two channels for the tax return, either logging into the portal of the NTCA and filing the return or filing a system-to-system return, just like the turnover tax and profit tax return pilots. In the latter case, the chances of errors are smaller because there is no need to manually copy data from the accounts. Even more importantly, the NTCA is present at the front end therefore keeping the freelancer up to speed during the administrative process. For the NTCA, system-to-system filing is an obvious preferred strategy.
- The NTCA will wish to understand better how the use of norms and standards can be implemented across the board. Not all software carries a quality mark.
- The NTCA, in consultation with suppliers, will wish to explore how the automatic profit tax return can be implemented across the board.
- Another follow-up step relates to the continued improvement of the information in the automatic profit tax return. Missing or incorrect data in the accounts, for example because the freelancer fails to document income or incorrectly documents income, will either not end up in the automatic profit tax return or will end up there incorrectly. Using benchmarks may be a next step. This will make it clear when the turnover of an entrepreneur is much lower than that of industry peers or where operating costs are considerably higher than is customary for the sector.

Chapter 13

Innovations in dispute resolution

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This chapter describes a number of innovative dispute resolution programmes developed by the Australian Taxation Office to improve perceptions of fairness and the client experience.

13.1. Introduction

Rapid changes in technology, greater access to information and knowledge, developments in domestic and international taxation and superannuation policy, and changing community expectations are increasing challenges and opportunities for tax administration in Australia and so also driving changes in how the Australian Taxation Office (ATO) interacts with taxpayers and their disputes. Responding to these challenges and opportunities has led to the ATO developing numerous innovative dispute resolution programmes to improve perceptions of fairness and the client experience.

The formal taxation dispute process in Australia is framed by statutory provisions that enable taxpayers to challenge taxation decisions made by the ATO. Where taxpayers disagree with an ATO decision, the law provides them a right to formally dispute this, first through an internal review process, known as an objection, and subsequently through either a merits review in the low cost Administrative Appeals Tribunal (AAT) or by way of appeal to the Federal Court of Australia.

Review and Dispute Resolution (RDR), an independent unit within the ATO, is responsible for the objection and litigation functions of the ATO. This has allowed RDR to develop processes to effectively triage easily resolved disputes and to use a multidisciplinary approach bringing together objections officers and litigators for more complex disputes that will require greater resources to resolve. Having a single unit manage all disputes has also allowed the ATO to take a more strategic approach to complex matters and allows all taxpayers the same level of access to decision makers and dispute resolution services.

RDR was formed in 2013 in response to the identified need to create more separation between the ATO's administrative review and audit functions. RDR operates as a separate and independent internal review point for challenges to specific ATO decisions, and works with ATO audit and debt functions to ensure the ATO's decision-making processes and capability meet Government and public expectations as to fairness, transparency and good decision making.

RDR has focused on promoting a culture of fairness and greater consideration of taxpayer's circumstances when managing and considering a taxpayer's dispute. RDR provides a number of no-cost dispute resolution services to assist taxpayers who are in dispute with the ATO. These services are offered on first contact with taxpayers. Many of the services can be accessed by taxpayers or ATO officers at any stage, even if a formal, statutory dispute has yet to be lodged.

The key dispute resolution services that RDR has developed and implemented over the last five years include:

- Independent Review of audit positions before the finalisation of the audit for certain classes of taxpayer (since 2013)
- Dispute Assist for vulnerable taxpayers whose personal circumstances make managing their dispute more difficult (since 2016)
- in-house facilitation, a free in-house mediation service available to taxpayers and ATO decision makers (since 2014)
- refreshing the ATO's approach to tax settlements (since 2014-15)
- Independent Assurance of Settlements, providing assurance to the community that the ATO's largest settlements are fair with reasonable outcomes (since 2017)
- introducing measures for fairness in disputes (since 2015).

More detail about each of these initiatives is provided later in this article.

All of these services and improvements have directly come about as a part of a cultural shift in the ATO to build a service culture and promote fairness. The goal in doing this has been to improve the taxpayer experience during tax disputes to ensure disputes are resolved in a timely, fair and inexpensive manner and to build future community confidence in the administration of the Australian taxation and super systems and encourage voluntary compliance.

These initiatives have resulted in a significant drop in appeals to the Administrative Appeals Tribunal of more than 60%.¹ There has also been a sustained 30% improvement in the average resolution time for objections.

Table 13.1. ATO dispute resolution trend figures and statistics

	2014-15	2015-16	2016-17	2017-18
Objections				
Average objection resolution time (days)	NA	94	65	65
Total objection decisions issued	26 140	26 690	24 490	25 350
Proportion of objections resulting in litigation	2.21%	1.58%	1.51%	1.58%
Litigation				
Total cases lodged to courts/tribunals	697	481	456	478
<i>Number of these that were applications for review to the AAT</i>	533	396	357	344
Total cases proceeded to decision	154	151	141	102
<i>Decisions fully favourable to ATO</i>	69%	77%	77%	79%
<i>Decisions fully and partly favourable to ATO</i>	89%	85%	89%	90%
Proportion of settlements occurring prior to litigation	NA	NA	89.35%	96%

Notes: Litigation refers to tax litigation matters, not including debt. NA = Not available.

13.2. Independent Review

Since July 2013, the ATO has offered an Independent Review of the technical merits of an audit case prior to the finalisation of the audit. Independent Review aims to encourage earlier engagement to resolve disputes. The process was initially offered only to Large Market entities (i.e. with an annual turnover greater than AUD 250 million).

A senior technical officer from RDR, who has had no previous involvement in the audit, reviews the technical merits of the ATO audit position before it is finalised. This allows not only an impartial review of the auditor's position, but also an opportunity to ensure that the position was effectively communicated to the taxpayer, clear up any misunderstandings and confirm that decisions are consistent across the organisation.

The review officer will facilitate a case conference with the taxpayer, their advisers and the ATO's audit officers to help clarify the issues in dispute within the parties' positions. The review officer will recommend, in writing, the better view of the disputed matters, and the ATO audit officers will finalise their audit in line with those recommendations. The Independent Review process does not impact on the taxpayer's rights to access the formal taxation dispute process.

Since the launch of Independent Review for Large Market taxpayers in 2013 there have been more than 60 reviews, with only two matters that have proceeded to litigation. Objection rates for ATO audits of Large Market taxpayers are near 100% when there is no

Independent Review conducted. Of the 12 Independent Reviews that fully supported the ATO auditor's position in the 2017-18 financial year only seven resulted in an objection, demonstrating a dramatic drop in ongoing disputes where an RDR Independent Review was conducted at the audit stage.

Table 13.2. **Independent Review for Large Market taxpayers**

Large Market Independent Reviews	2013-14	2014-15	2015-16	2016-17	2017-18
ATO position supported	7	8	3	4	12
ATO position partially supported	1	2	1	7	1
Taxpayer position supported	6	2	1	1	2
Settled	-	1	2	-	-
Withdrawn	-	1	1	-	-
Total number of Independent Reviews	14	14	8	12	15

The ATO commenced a 12-month pilot from 1 July 2018 to assess the feasibility of extending Independent Review to small business taxpayers (i.e. taxpayers in business with income or turnover of less than AUD 10 million). The pilot programme will initially target small business audit cases, drawn from topics identified as high priority and in particular geographic locations.

In designing the Independent Review pilot for small business, the ATO consulted with external stakeholders including the Inspector General of Taxation, the Australian Small Business and Family Enterprise Ombudsman, professional associations and small business adviser groups.

The Independent Review for small business is based on the existing Large Market Independent Review service with more flexibility. For example, the Large Market Independent Review is generally confined to the material exchanged at audit, including the auditor's position paper, the taxpayer's response and the final statement of audit position. However, for small business taxpayers, the ATO recognises that written material and supporting evidence may not be as comprehensive, so the process offers the flexibility to supplement that material to ensure a fair approach.

Greater consideration is also given to whether alternative methods of dispute resolution are more appropriate for each case (i.e. in-house facilitation or a negotiation with the area responsible for collecting the ATO's debt), flexibility around methods of communication (including telepresence) and greater flexibility around time frames.

The ATO offers Independent Review in the audit finalisation letter to suitable small business taxpayers. So far the uptake has been less than expected. The feedback from small business taxpayers that have decided not to request an Independent Review revealed that this is often due to taxpayers or their representatives not having the resources to engage in the process. Low-value adjustments were not considered worth following up.

In response to this feedback and to encourage take up of Independent Review the ATO:

- adjusted the offer included in the audit finalisation letter to better focus on what the service offers
- commenced follow-up calls to explain the merits of Independent Review.

In the future the ATO is looking to expand the pilot to include penalty-only disputes, based on feedback that penalties are often the main driver of disputes for small business taxpayers.

13.3. Dispute Assist

Dispute Assist is an innovative service to help resolve tax disputes for vulnerable taxpayers in difficult personal circumstances. Dispute Assist provides a holistic approach to managing disputes in the context of taxation administration. The service seeks to enhance the taxpayer experience by providing vulnerable taxpayers with access to experienced ATO officers (guides) to help support them through the dispute process. It has a particular focus on individuals and small businesses that do not have access to formal representation, such as a tax agent or legal representative.

Dispute Assist builds extensively on the RDR culture of taking a fairness mindset to resolving disputes. It recognises that taxpayers can struggle to interact with the ATO when their lives are being impacted by significant external circumstances and that this can lead to and exacerbate disputes with the ATO.

Dispute Assist is designed to support unrepresented taxpayers affected by:

- mental health issues
- family breakdown
- domestic violence or assault
- disability or illness
- financial hardship.

The ATO guides have tax technical experience and undergo an internal training course before they commence in the role. Guides do not give advice or make decisions. They are not counsellors. Their role is to:

- connect the taxpayer with the right people to resolve the dispute as early as possible
- support the taxpayer to explore all options
- ensure that all dispute resolution processes undertaken are transparent and fair, and
- adopt a holistic approach in resolving all matters.

Dispute Assist is the first time a pro bono service has been offered by an Australian Government revenue or regulatory agency to its clients using its own officers. Approximately 100 officers supported 150 taxpayers in the first 12 months. The ATO also actively supports and engages with other community organisations and private sector pro bono services to assist them in meeting the needs of vulnerable taxpayers.

Box 13.1. Example of the use of Dispute Assist

A taxpayer who was experiencing difficult personal circumstances lodged an objection. He had:

- significant familial responsibilities due to his father's financial and physical incapacity
- deferred university studies in order to maintain full-time work so as to support the family and ensure mortgage repayments did not fall into arrears
- confusion and frustration in relation to the objection/dispute process.

Box 13.1. Example of the use of Dispute Assist *(continued)*

The Dispute Assist guide held a face-to-face meeting with the taxpayer and objections officer to discuss the dispute. After taking the taxpayer's circumstances into account the administrative penalties were remitted. The guide also engaged with the debt recovery area to set up a payment arrangement so the taxpayer could pay his tax liability by instalments.

The taxpayer said that he felt the ATO understood what he was going through and guided him on correct taxation practices for future compliance, and that the whole experience was well organised and a wonderful change that he would recommend continuing in the future.

13.4. In-house facilitation

In-house facilitation is an alternative dispute resolution service offered by the ATO for resolving taxation disputes. The service uses an impartial ATO officer, with no prior knowledge or involvement in the dispute, to facilitate discussions between the ATO decision maker and the taxpayer. The facilitator is a trained mediator and uses the standard industry mediation process to assist the parties resolve the dispute or at least make progress towards resolution. If the facilitation does not resolve the dispute, the taxpayer's review rights are unaffected.

The in-house facilitation service has been used extensively by small businesses since its launch, with over 50% of all facilitations involving small businesses. The majority of these small businesses partly or fully resolved their dispute.

In-house facilitation is available at any stage in the dispute process for all tax and superannuation disputes. The parties preferably meet face-to-face, either at an ATO office or at the taxpayer's or their representatives' premises. Where this is not possible, facilitations have been conducted using video-conferencing technology or by telephone conference.

In-house facilitation is free of charge for the taxpayer and can offer a quicker and lower cost resolution than the full objection and appeals process. Facilitation has proven effective at resolving disputes and also has a positive impact on the relationship between the ATO and taxpayer by promoting trust and confidence in the tax system.²

Demand for the ATO's in-house facilitation service has nearly tripled since creation, from 93 disputes requesting facilitation in the 2014-15 financial year to 247 in 2017-18. In the 2017-18 financial year, 99% of in-house facilitations were able to fully or partially resolve the dispute, with only one matter remaining unresolved at the end of facilitation.

All participants in any in-house facilitation are asked to complete a survey after the facilitation has been completed. Based on the results from this survey:

- The process was found to be a cost-effective and efficient resolution method i.e. reduced litigation risks.
- The process offers a possible circuit-breaker where there has been a breakdown in the relationship between the ATO and the taxpayer over the dispute.
- 80% of participants felt the relationship with the other party improved as a result of the facilitation.
- 97% of participants responded that the facilitation process was fair.
- 82% of participants believed that the process was effective in resolving or progressing the dispute.

In-house facilitation may be requested by the taxpayer or ATO officers but most referrals are from taxpayers.

Table 13.3. **In-house facilitation referrers**

Referrals	2014-15	2015-16	2016-17	2017-18
Referral from taxpayer	49	98	77	187
Referral from ATO	25	9	27	49
Mutual referral	11	4	7	11
Other (including Court referred)	8	17	9	0
Total referrals	93	128	120	247

Box 13.2. Example of in-house facilitation

The ATO was engaged in a long-running Goods and Services Tax (GST) dispute arising from the audit of the taxpayer's business being a country hotel. The hotel's turnover was well below expected for its size, which triggered an audit. During the audit, the taxpayer supplied comprehensive documentation (including its register receipts) that supported the small amount of turnover. Based on the discrepancy, the ATO decided that significant turnover was not being recorded and intended to raise an additional liability using industry benchmarks. To avoid further delay and costs, the parties agreed to an in-house facilitation. At the facilitation, the taxpayer explained to the ATO that the hotel has been struggling since newly constructed infrastructure was in use. Since then, their turnover had dropped significantly and some days only a handful of customers came through. The taxpayer showed the ATO photographs and provided thorough explanations for all questions. The ATO accepted the taxpayer's evidence and finalised the audit with no further action taken.

13.5. Settlements

Settlement by direct negotiation has remained an important part of the ATO's toolkit to resolve disputes in a timely and efficient manner. A settlement is where the ATO and taxpayer agree to resolve matters in dispute where one or both parties makes concessions on what they consider is the legally correct position. The Code of Settlement sets out the ATO's approach to settlement by direct negotiation. In deciding whether it is appropriate to settle the ATO considers:

- the relative strength of the ATO's and taxpayer's positions
- the cost versus the potential benefits of continuing the dispute
- the impact on future compliance for the taxpayer and broader community.

In 2014 the ATO simplified the ATO Code of Settlement. Settlement negotiations can be initiated by any party and can occur at any stage, including before assessments are raised. Since 2014 the ATO has seen more matters resolved through settlement at the earlier stages of disputes (i.e. at objection and increasingly at audit). 2014 also saw the introduction of the Settlement Coordinators Network. This network has provided a forum for the different units in the ATO to develop improvements to the settlement process, ensure settlements are managed consistently across the ATO and provide internal assurance of settlements to ensure that they continue to serve the best outcomes for the community.

More recently the ATO has introduced the Independent Assurance of Settlement process for settlements with large business. Retired Federal Court of Australia judges review settlements to give the community confidence that settlements are fair, reasonable and conducted appropriately under the law.

The ATO reports publicly on settlements. The Australian National Audit Office (ANAO) recently reviewed the ATO's use of settlements. It found that the ATO had provided higher levels of public reporting about settlement activities than comparable national revenue authorities.³ The ANAO report particularly highlights the improvements made in recent years to resolving taxation, superannuation and debt disputes with taxpayers. It found that the ATO is effective, comprehensive and fair in using settlements to resolve taxpayer disputes.

13.6. Measuring fairness

In response to the 2014 Tax and Revenue Committee enquiry into tax disputes the ATO introduced a measurement methodology and public Key Performance Indicator (KPI) to measure and report on taxpayers' perceptions of fairness in tax disputes. The current KPI target is for 60% of taxpayers to feel that tax disputes were treated fairly. Taxpayers' perceptions of fairness in disputes have increased from 49% in 2014 to an average of 54% in the 2017-18 year. Perhaps of even greater significance than the publicly reported target and performance are the insights obtained from the initial research to help develop the measure and measurement methodology as well as the ongoing feedback from taxpayers as part of the measurement process. These have helped shape the ATO's approach to innovative dispute resolution services.

Over the past three years the ATO has sought feedback from more than 2 500 small business and individual taxpayers in the ATO's Perceptions of Fairness in Disputes surveys. These surveys are presented to the taxpayer after engaging in one of the dispute services explained above. The importance of this feedback is that it provides an overall indicator of a good experience and has contributed to an ongoing cycle of improvements to the ATO's approach and programmes. The feedback has reinforced the improving perception of fairness in tax disputes with the ATO and a greater willingness on the part of taxpayers to engage with the ATO and explore alternative dispute resolution options in the future.

13.7. Conclusion

The ATO is committed to resolving disputes and its independent administrative review unit in RDR has implemented a number of innovative services to improve the client experience. While disputes are unavoidable, the ATO is committed to ensure these are resolved as early and effectively as possible to deliver the best experience that taxpayers would expect of a contemporary tax administrator. The goal is to continue to work collaboratively with taxpayers to prevent issues escalating into disputes wherever possible.

Notes

1. From 922 in 2013-14 to 344 in 2017-18.
2. See para. 65 of the Commissioner of Taxation – Annual Report 2016-17 (ATO, 2017^[1]).
3. See para. 16 of the 2017 report of the Australian National Audit Office (ANAO, 2017^[2]).

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Chapter 14

Improving the ATO staff experience: Increasing productivity and engagement

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Since 2015, the Australian Taxation Office (ATO) has maintained a dedicated focus on identifying and delivering improvements for staff, with an emphasis on addressing basic irritants, valuing staff contributions and providing them with tools and innovations needed to do their jobs well. Initiatives have been underpinned by programmes to build leadership and a healthy organisational culture. As a result, sustained productivity, engagement and client service benefits have been realised. This chapter describes a number of the initiatives and approaches taken by the ATO.

14.1. Becoming an employer of choice

Civil servants, including tax administrators, make a significant contribution to national growth and prosperity. They are required to address problems of unprecedented complexity and perform their roles in societies that are increasingly pluralistic and demanding. The OECD has recognised a need to attract and develop staff with skills to meet these emerging challenges in an environment of constrained public spending (OECD, 2017^[1]). Accordingly, public employers must position themselves as employers of choice to recruit, retain and motivate high-quality talent (OECD, 2016^[2]).

With staff costs averaging 70% of most tax administration budgets, maximising efficiency and productivity is critical to delivering outcomes for governments and citizens. Many administrations face the “double pressure” of reduced budgets and significant technological change (see Chapter 4).

14.2. Working towards 2024

The ATO is committed to improving the client and staff experiences by fostering a culture of service, promoting early intervention and prevention over correction. Building on the outcomes of its reinvention programme, the ATO has two key aspirations moving towards 2024: create a streamlined, integrated and data-driven administration and build trust and confidence in the tax and superannuation systems.

ATO employees are critical to achieving these goals. Consequently, the ATO is making investments to build a high-performing, responsive and professional workforce with the right culture and to provide employees with the right tools and workplace so they can deliver a well-designed client experience.

14.3. Improving the staff experience

Extensive consultation with ATO staff in 2015 identified three key themes to improve their experience:

1. Fix the basics
 - Remove irritants from the systems and processes I rely on.
 - Minimise red tape and empower me to be accountable and make decisions.
 - Increase my awareness of how I can enact change.
2. Value and support
 - Respect my experience and skills and trust me to use them.
 - Listen to my suggestions and feedback.
 - Give me strong, consistent leaders who provide clear expectations, support my development and deal with underperformance.
3. Effective tools and processes
 - Show me what I need to do differently, particularly when practices and processes need to change.
 - Give me access to the technology and tools I need to do my job.
 - Communicate in a way that is consistent, timely, tailored, and honest, so I understand practical implications.

Building on the staff consultation, the ATO identified a framework of nine staff experience “pillars” or “lenses”. These pillars enable a strategic and cohesive approach to improving the staff experience and an end-to-end approach for measuring shifts.

Table 14.1. Framework of nine staff experience “pillars”/“lenses”

Recruitment Hiring people with the right attitude, skills and characteristics (for now and into the future)	Physical workspace Creating a work environment that supports the aspirations of staff and complements the culture	Right tools Providing and supporting task-driven, tailored tools that meet the needs of the workforce
Learning & development Ensuring staff have skills for current and future roles	Performance systems Developing systems that keep staff on task and continuously improving	Network and relationships Improving how staff connect and work with each other and build stronger relationships
Understand our people Truly knowing staff, their capabilities, strengths, potential and aspirations	Career mobility Fostering a culture that values diverse and adaptable staff and provides them with career pathways and opportunities	Future practice & processes Proactively innovating, co-designing and implementing new processes and procedures

The ATO has implemented a range of initiatives under each of these pillars to increase staff productivity and engagement. Several are described in further detail.

14.4. Recruitment

To attract the best and brightest people, the ATO recently refined its employee value proposition. Consistent messaging is now used throughout the recruitment process to shape prospective employee perceptions and highlight the unique benefits of working at the ATO.

A key point of difference of employment at the ATO is the opportunity to do work that is meaningful, diverse and challenging. Working at the organisation provides employees with an opportunity to make a real difference to the lives of Australians and contribute to their economic and social wellbeing. Other aspects that make the ATO an employer of choice include flexible working conditions and continuous investment in the professional growth and development of staff.

As well as maximising career opportunities for existing staff, the ATO has several recruitment programmes to attract new talent and reflect the diversity of the community. Participants in several entry-level programmes have increased in recent years.

Our Evergreen programme is open to Aboriginal and Torres Strait Islander peoples. It provides participants who have limited work experience the opportunity to experience challenging work through targeted work placements and formal training over 18 months, with a permanent role on completion of the programme.

Our Graduate programme is open to Australian citizens who have completed their university studies within the last three years. The aim of the programme is to build enterprise-critical capability and contribute to the development of a highly professional, adaptable workforce. The programme runs for 12 months and includes challenging work rotations and structured training and development opportunities. Following this, graduates are placed in a permanent role relevant to their discipline.

Box 14.1. The Opening Door programme

The Opening Doors programme aims to increase the diversity of the ATO workforce by tapping into different talent pools, bringing new knowledge, ideas and ways of working. The programme has three focus areas:

- established professionals who may not have considered public service employment, but are looking for flexible working hours and conditions
- people from refugee backgrounds seeking to establish themselves in Australia
- current or previous armed service personnel transitioning to a civilian role.

Roles are filled across a variety of disciplines including, law, accounting, economics, design, information technology, customer service, human resources, marketing and communication. The programme provides six to twelve months of experience and opportunities.

Feedback from ATO managers has been overwhelmingly positive. The employees are enthusiastic, motivated and hardworking, bringing innovative perspectives and objectively contributing to identify efficiencies and improvements in the workplace.

A number of participants in the Opening Doors programme have subsequently applied for and achieved ongoing employment with the ATO. For example, several employees in the refugee stream were accepted into the graduate programme. Participants seeking additional temporary employment have commenced new contracts, ensuring they can continue to contribute to the ATO's vision.

As the programme has evolved, the ATO has identified ways to enhance development opportunities for candidates, including engaging across additional networks to target candidates with the right expertise and capabilities. For example, the ATO is working with community organisations that support employees from refugee backgrounds outside the workplace. This has significantly increased the assimilation and retention of employees working to overcome significant cultural barriers.

14.5. Learning and development

The ATO has refreshed its capability framework to ensure employees have relevant skills today and into the future. Staff use the framework to appraise their own abilities, identify skills and knowledge for current and future roles, and develop learning and development plans. Employees rate their proficiency across five increments (awareness, foundation, intermediate, advanced, expert) prior to discussing with their manager.

Core capabilities, such as written and verbal communication, have been updated to ensure staff meet current and future expectations. New capabilities have been added, including digital and data literacy, with an emphasis on critical thinking, problem solving and innovation. The ability to adapt and thrive during change has been recognised as an essential attribute across the workforce.

Significant changes have also been made to increase capability in the ATO, with a greater focus on:

- development events that are profession-specific and industry-recognised
- learning pathways that enable the identification of capabilities, qualifications and experience needed for current and future roles
- industry-standard skills and qualifications.

The new model delivers a mix of internal and external tailored training combined with structured and on-the-job development opportunities. Examples include:

- offering shorter, 1-hour training sessions on a variety of topics as part of a “learning express” series
- a secondments programme that strengthens relationships with other organisations and enhances staff understanding of commercial environments
- introducing a performance framework that supports frequent, quality conversations (check-ins) between managers and staff, enabling staff to set tailored goals and perform at their best.

Box 14.2. The virtual career expo

The virtual career expo is an annual initiative that builds capability by raising awareness of career and development opportunities across the organisation. Supplemented by two weeks of site-based events, an animated online expo provides staff and managers with opportunities to:

- access videos, podcasts, and online resources
- listen to subject matter experts via webinars and livestream events
- network and participate in online discussions
- register for virtual and face-to-face “speed mentoring” with senior executives
- receive a digital “show bag” of internal and external online resources.

Box 14.3. Technical conference to support the development of tax law capability in the ATO

In 2018, a nation-wide technical conference was held to support the development of tax law capability in the ATO. The theme, “being contemporary in a changing environment”, enabled the exploration of opportunities and risks in an environment of increasing globalisation and digital adoption.

Staff from all areas of the ATO came together across the week at 17 plenary and 50 site-based events. They had the opportunity to learn from 90 internal and eight external experts either face-to face or via livestream, webinar, telepresence and Yammer (an internal social networking service). The multiple delivery formats ensured that all staff could access subject matter experts, regardless of location.

14.6. Right tools and physical workspace

The ATO understands the importance of providing staff with the right tools and workplace so they can deliver a well-designed client experience. Technology also plays an increasingly important role in helping staff collaborate and connect with their managers and leaders.

In 2016, the ATO trialled an activity-based workspace that was co-designed with staff and intended to improve productivity, collaboration and wellbeing. Participants included representatives of the different types of work undertaken across the organisation. Feedback was overwhelmingly positive, with participants reporting a 26% increase in satisfaction with the physical work environment. Observational studies indicated the environment enhanced the wellbeing of staff through increased physical movement and better work-related and social connections.

The ATO is refining information systems to provide a consistent and adaptive view of the tax and superannuation position of clients, which is enabling staff to better tailor services. The new profile shows a consolidated view of a client's personal, obligation and risk information. This supports a co-ordinated and well-designed approach to engagement that takes into account client preferences, risk and behaviour.

Box 14.4. Mobile phone application

A mobile phone application was introduced to provide staff with greater flexibility and accessibility. Initial features included the ability to view payslips and leave balances and apply for and approve leave from any internet-connected device. Subsequent features have included the ability for rostered staff to access schedules and update their availability in real-time, based on changing circumstances. This has resulted in a significant reduction in manual administration for rostering and notifying staff. Staff demand to access this information away from the office is demonstrated by the fact that peak usage occurs on Sunday and Monday evenings and the application has been used in more than 30 countries.

14.7. Leadership and culture

The ATO is fully aware that the effectiveness of any initiative to improve the staff experience is dependent on a healthy organisational culture and good leadership. In 2015, staff participated in consultation and co-design activities to articulate the mindset, attitudes and behaviours needed to create a vibrant and client-focused culture that would enable the ATO to meet the goals of its reinvention programme. Five cultural traits were identified as vital (see Table 14.2).

A range of initiatives has been introduced to improve the culture and leadership of the ATO, including:

- promoting foundation leadership skills for staff at all levels
- development programmes to strengthen the capability of high-performing and high-potential executive staff, building a pipeline of future leaders
- senior executive masterclasses covering topical leadership issues
- empowering staff by reducing 1 300 pages of prescriptive internal policy to 200 pages of succinct, principle-based guidelines
- shifting the focus for risk management from “what might go wrong” to “what needs to go right”.

Table 14.2. Five cultural traits

Client-focused	United & connected	Empowered & trusted	Future-oriented	Passionate & committed
We put clients, external and internal, at the centre of everything we do.	We work as one team to deliver the right outcomes for the community.	We are supported to take ownership, exercise judgment and make reasonable decisions.	We will be flexible and adapt to meet immediate and future challenges.	We are passionate about our role in serving the community and we bring professionalism, energy and determination to everything we do.

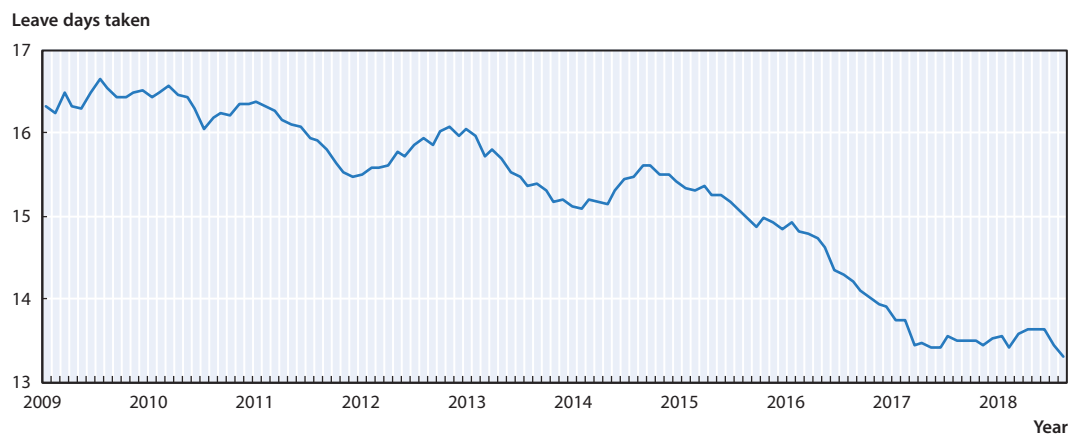
Box 14.5. The staff exploration day and fix-it squad initiative

A staff exploration day and fix-it squad initiative was implemented to encourage ownership of purposeful ideas for business improvement, build solutions thinking and reducing a “silo mentality”. It has created opportunities for cross-functional teams to collaborate and share ideas and insights across the country. Using contemporary innovation approaches, cross-disciplinary teams work to identify root causes, before bringing together new models and prototypes into a coherent solution. Concepts are presented to a panel of senior leaders who provide constructive feedback and sponsor implementation of improvements.

14.8. Productivity and engagement benefits

While a number of outcomes are still to be realised, current indications are that the ATO’s focus and investment on improving the staff experience has delivered productivity benefits and meaningful outcomes. For example, the average number of unplanned leave days per staff member declined from 15.25 days in 2015 to 13.39 days in 2018, enabling productivity increases and better client outcomes.

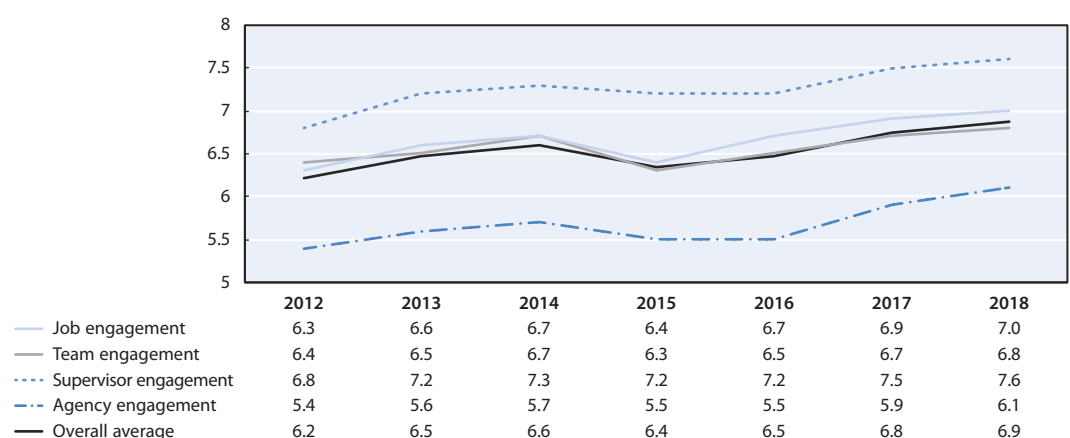
Figure 14.1. Average unplanned leave days – Rolling 12 months



StatLink  <http://dx.doi.org/10.1787/888933984649>

Broader measures of ATO staff engagement have shown steady improvement across all four categories (job, team, supervisor and agency), as measured in the annual Australian Public Service (APS) employee census.¹

Figure 14.2. Longitudinal comparison of APS Employee Engagement Model



StatLink  <http://dx.doi.org/10.1787/888933984668>

ATO revenue collection costs have progressively decreased. In 2015-16, it cost AUD 0.84 to collect AUD 100. This cost decreased to AUD 0.81 in 2016-17 and to AUD 0.74 in 2017-18. Improvements to the staff experience continue to deliver productivity and engagement benefits for the ATO.

Note

1. See APSC (2019), “APS employee census”, website, www.apsc.gov.au/aps-employee-census (accessed 18 June 2019).

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Annex A

Data tables

Annex A contains the set of tables which hold the data provided by tax administrations in response to the 2018 International Survey on Revenue Administration, and that were used to prepare the information contained in this report.

It is available in electronic form only and can be found at: <http://doi.org/10.1787/74d162b6-en>.

Annex B

Participating tax administrations

Table B.1. **Overview of tax administrations included in this report**

Country	Tax administration	Website address	Currency code
Argentina	Federal Administration of Public Revenues	www.afip.gob.ar	ARS
Australia	Australian Taxation Office	www.ato.gov.au	AUD
Austria	Federal Ministry of Finance	www.bmf.gv.at	EUR
Belgium	Federal Public Service Finance	https://finances.belgium.be	EUR
Brazil	Federal Revenue Service of Brazil	https://receita.economia.gov.br/	BRL
Bulgaria	National Revenue Agency	https://nap.bg/	BGN
Canada	Canada Revenue Agency	www.cra-arc.gc.ca	CAD
Chile	Servicio de Impuestos Internos	www.sii.cl	CLP
China	State Taxation Administration	www.chinatax.gov.cn	CNY
Colombia	National Tax and Customs Administration	www.dian.gov.co	COP
Costa Rica	Directorate of Taxation, Ministry of Finance	www.hacienda.go.cr	CRC
Croatia	Tax Administration, Ministry of Finance	www.porezna-uprava.hr	HRK
Cyprus*	Cyprus Tax Department	www.mof.gov.cy/tax	EUR
Czech Republic	Financial Administration of the Czech Republic	www.financnisprava.cz	CZK
Denmark	Danish Tax Administration	www.skatteforvaltningen.dk	DKK
Estonia	Estonian Tax and Customs Board	www.emta.ee	EUR
Finland	Finnish Tax Administration	www.vero.fi	EUR
France	Direction Générale des Finances Publiques (General Directorate of Public Finances)	www.economie.gouv.fr/dgfip	EUR
Georgia	Georgia Revenue Service	www.rs.ge	GEL
Germany	Federal Ministry of Finance and the Tax Administrations of the Federal States	www.bundesfinanzministerium.de	EUR
Greece	Independent Authority for Public Revenue	www.aade.gr	EUR
Hong Kong (China)	Inland Revenue Department	www.ird.gov.hk	HKD
Hungary	National Tax and Customs Administration	https://nav.gov.hu	HUF
Iceland	Directorate of Internal Revenue	www.rsk.is	ISK
India	Income Tax Department	www.incometaxindia.gov.in	INR
Indonesia	Directorate General of Taxes	www.pajak.go.id	IDR
Ireland	Office of the Revenue Commissioners	www.revenue.ie	EUR
Israel	Israel Tax Authority	www.taxes.gov.il	ILS
Italy	Revenue Agency	www.agenziaentrate.gov.it	EUR

Country	Tax administration	Website address	Currency code
Japan	National Tax Agency	www.nta.go.jp	JPY
Kenya	Kenya Revenue Authority	www.kra.go.ke/en/	KES
Korea	National Tax Service	www.nts.go.kr	KRW
Latvia	State Revenue Service	www.vid.gov.lv	EUR
Lithuania	State Tax Inspectorate under the Ministry of Finance	www.vmi.lt	EUR
Luxembourg	Administration des contributions directes (Direct Tax Administration)	www.impotsdirects.public.lu	EUR
	Administration de l'enregistrement et des domaines (Indirect Tax Administration)	www.aed.public.lu	
Malaysia	Inland Revenue Board of Malaysia	www.hasil.gov.my	MYR
Malta	Office of the Commissioner for Revenue	https://cfr.gov.mt	EUR
Mexico	Tax Administration Service	www.sat.gob.mx	MXN
Morocco	General Administration of Taxes	www.tax.gov.ma	MAD
Netherlands	Netherlands Tax and Customs Administration	www.belastingdienst.nl	EUR
New Zealand	Inland Revenue Department – Te Tari Taake	www.ird.govt.nz	NZD
Norway	Norwegian Tax Administration	www.skatteetaten.no	NOK
Peru	Superintendencia Nacional de Administración Tributaria (SUNAT)	www.sunat.gob.pe	PEN
Poland	National Revenue Administration	www.finanse.mf.gov.pl	PLN
Portugal	Portuguese Tax and Customs Authority	www.portaldasfinancas.gov.pt	EUR
Romania	National Agency for Fiscal Administration	www.anaf.ro	RON
Russia	Federal Tax Service of Russia	www.nalog.ru	RUB
Singapore	Inland Revenue Authority of Singapore	www.iras.gov.sg	SGD
Slovak Republic	Financial Directorate of the Slovak Republic	www.financnasprava.sk	EUR
Slovenia	Financial Administration of the Republic of Slovenia	www.fu.gov.si	EUR
South Africa	South African Revenue Service	www.sars.gov.za	ZAR
Spain	Spanish Tax Agency (AEAT)	www.agenciatributaria.es	EUR
Sweden	Swedish Tax Agency	www.skatteverket.se	SEK
Switzerland	Federal Tax Administration	www.estv.admin.ch	CHF
Thailand	The Revenue Department	www.rd.go.th	THB
Turkey	Turkish Revenue Administration	www.gib.gov.tr	TRY
United Kingdom	Her Majesty's Revenue and Customs	www.hmrc.gov.uk	GBP
United States	Internal Revenue Service	www.irs.gov	USD

* Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

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Tax Administration 2019

COMPARATIVE INFORMATION ON OECD AND OTHER ADVANCED AND EMERGING ECONOMIES

The eighth edition of the OECD's Tax Administration Series, this report provides internationally comparative data on aspects of tax systems and their administration in 58 advanced and emerging economies. The publication presents the results of the 2018 International Survey on Revenue Administration (ISORA), a multi-organisation international survey to collect national-level information and data on tax administration governed by four partner organisations: CIAT, the IMF, IOTA and the OECD. For the 2018 survey round, the Asian Development Bank (ADB) agreed to participate along with the four partner organisations.

The report has three parts. The first contains four chapters that examine and comment on tax administration performance and trends up to the end of the 2017 fiscal year. The second part presents ten tax administration-authored articles providing a country view on a range of topical issues to tax administration, while part three contains all the data tables that form the basis of the analysis in this report as well as details of the administrations participating in this report.

Consult this publication on line at <https://doi.org/10.1787/74d162b6-en>.

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