

**Table 6.1. Evolution of the application of data science tools, artificial intelligence and robotic process automation between 2018 and 2021**

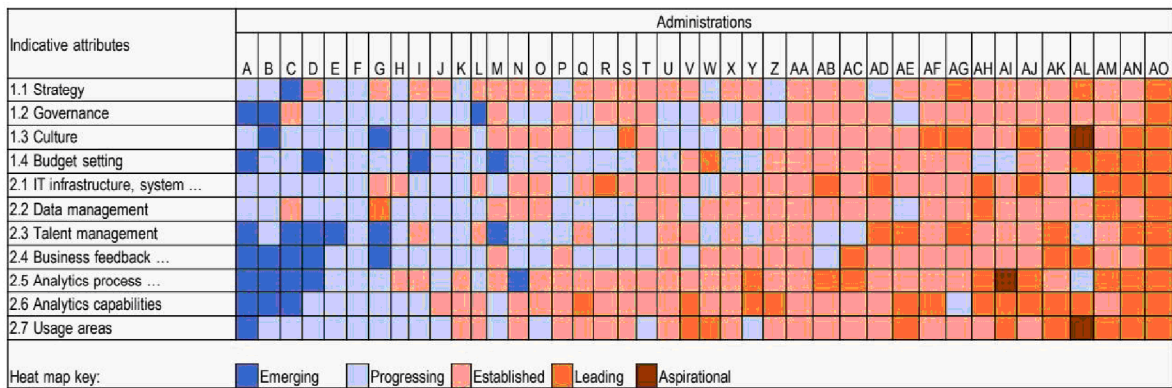
Percent of administrations

	Data science / analytical tools			Artificial intelligence, including machine learning			Robotic process automation		
	2018	2021	Difference in percentage points (p.p.)	2018	2021	Difference in p.p.	2018	2021	Difference in p.p.
Status of implementation and use									
Technology implemented and used	71.9	94.8	+22.9	31.6	54.4	+22.8	22.8	50.0	+27.2
Technology in the implementation phase for future use	19.3	5.2	-14.1	15.8	28.1	+12.3	14.0	8.6	-5.4
Technology not used, incl. situations where implementation has not started	8.8	0.0	-8.8	52.6	17.5	-35.1	63.2	41.4	-21.8

Sources: Tables A.91. and A.92.

With the use of analytics increasingly becoming a common and integrated part of tax administrations across the world, in developed and developing countries alike, being used in strategic as well as operative usage areas, the OECD's Forum on Tax Administration developed the *Analytics Maturity Model* (OECD, 2022<sup>[8]</sup>). The model allows tax administrations to self-assess their current level of maturity in their analytics usage and capability, providing insight into current status and identifying areas of weaknesses as well as strengths. As Figure 6.2. shows, it has been completed by over 40 tax administrations, and the results of this are guiding and supporting administrations in their analytics strategies.

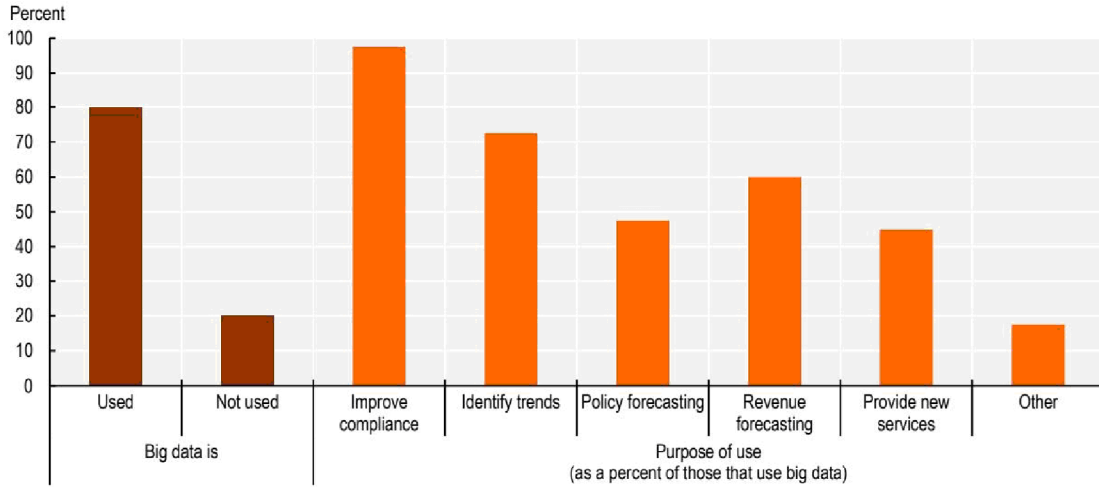
**Figure 6.2. Results of the Analytics Maturity Model self-assessments**



Source: OECD (2022), Analytics Maturity Model, <https://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/analytics-maturity-model.htm> (accessed on 22 May 2023).


**Figure 6.3. Use of big data for analytical purposes, 2022**

Percent of administrations



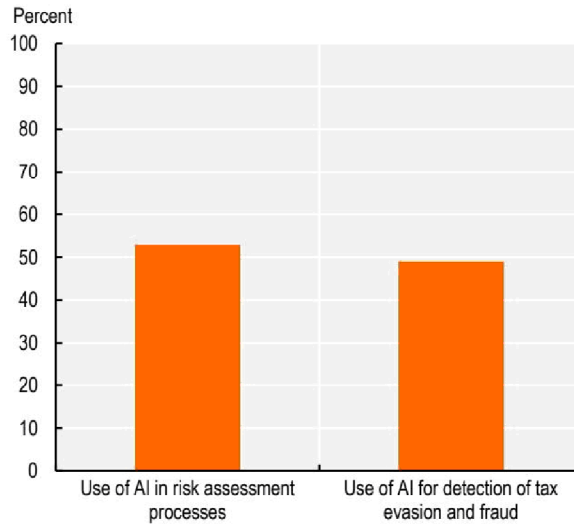
Note: The figure is based on ITTI data from 52 jurisdictions that are covered in this report and that have completed the global survey on digitalisation.

Source: OECD et al. (2023), Inventory of Tax Technology Initiatives, <https://www.oecd.org/tax/forum-on-tax-administration/tax-technology-tools-and-digital-solutions/>, Table DM3 (accessed on 22 May 2023).

StatLink  <https://stat.link/uie5vk>

**Figure 6.4. Use of artificial intelligence, 2022**

Percent of administrations



Note: The figure is based on ITTI data from 52 jurisdictions that are covered in this report and that have completed the global survey on digitalisation.

Source: OECD et al. (2023), Inventory of Tax Technology Initiatives, <https://www.oecd.org/tax/forum-on-tax-administration/tax-technology-tools-and-digital-solutions/>, Table TRM3 (accessed on 22 May 2023).

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### Box 6.3. Examples – Using analytics

#### Australia – Application of data science and analytical modelling

The COVID-19 pandemic created challenging economic conditions that affected many businesses and communities in Australia. Between 2019 and 2022, the Australian Taxation Office (ATO) experienced a 16% growth in debt accounts and a substantial 70% increase in collectable debt. After pausing many actions during the pandemic, in 2022 the ATO resumed collection activities.

Analytic modelling and data driven insights are integral to delivering on ATO's differentiated strategies and treatments. In 2022, the ATO:

- Made improvements to their Financial Resilience Insights (FRI) suite of analytic models to better cluster similar clients and recognise their assets and income streams.
- Deployed Enterprise Client Profile (ECP) gadgets which surface these FRI analytic insights to staff, enabling them to understand the financial health of taxpayers. Financially healthy taxpayers who have a greater capacity to reduce their debt are encouraged to pay in full or enter in to optimal (shorter) payment plans, while taxpayers who are less financially healthy can be supported with longer repayment terms which analytics indicates are more sustainable.
- Re-configured the analytic model combination which supports delivery of taxpayers to staff for potential firmer actions, pivoting away from some models which had deteriorated in performance (accuracy of predictions) due to limited training data due to the pause on firmer actions.
- Assessed the collection prospects for several populations of special interest, such as Superannuation Guarantee debtors, Small Business debtor and fraudulent credit claims.

#### Chile – Fraud risk: Taxpayers with tax records or documents to prove

A "taxpayer with aggressive tax behaviour" is defined as any taxpayer who, after having notified the start of trading to the SII and subsequently being authorised to issue VAT documents, goes on to raise doubts as to whether the linked business operations have actually been carried out. To address this, the SII set-up an initiative to identify, based on a predictive model, those taxpayers who might engage in such activity, and to design preventive, corrective or structural treatment actions.

These types of models are used as part of the SII strategy against non-compliant behaviour within the first 3 months of taxpayer registration, and different types of algorithms are used to detect anomalies. The data used is extracted from tax returns, purchase and sales tax documents, and relationships with other relevant actors associated with the taxpayer's commercial operations.

#### Israel – Analytics Centre

The Analytics Centre is a platform for maximising the yield per hour of any tax administration process by providing diverse supporting analytics products. It consists of two innovative core components:

- An analytics workshop for rapid production of a variety of analytics models such as AI models, graph analytics models, rule-based engines, statistical report generators, etc.; and
- A model cloud for scalable implementation of these models.

Once a model is manufactured in the workshop and registered in the cloud, it is ready to simultaneously serve multiple users through dedicated applications regardless of the model's initiator. This holistic platform drives the continuous growth of analytics usage up to an enterprise-wide level which increases organisational overall productivity. This system has for example produced models for the selection of cases for company, individual or VAT tax audit.

At the beginning of 2022, the company selection model provided a list of 131 companies recommended for audit. By the end of the year, the tax audit process of 43 companies has been completed. This overt process yielded in average an increase in the tax generated from each company.

An AI model for detecting real-estate property owners who do not report rental income was also developed. The model provided a set of 425 suspects with a 50% accuracy rate as 227 suspects responded in less than two months and generated additional annual tax.

### Sweden – Improving identification and matching

The STA has developed a service that identifies private individuals and businesses in the Swedish tax registry and matches them to incomplete data received through automatic exchange of information initiatives. The service aims to:

- Increase the ability to identify potential matches;
- Increase the level of certainty that a match is correct; and
- Improve the ability to manage changes in data, technological developments, so that data quality is maintained over time.

To achieve this the STA built a tool based on search engine technology which allows:

- Increased search efficiency through indexing of source data, with the ability to index individual words or variants of words;
- The use of complex queries without time-consuming manual index creation; and
- Advanced scoring for ranking search results.

This approach has been very effective with the percentage of identifications increased from 75% to 90%, while the accuracy of identifications increased from 95.2% to 99.9%.

Sources: Australia (2023), Chile (2023), Israel (2023) and Sweden (2023).

### *Taxpayer programmes*

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 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 high-profile groups of taxpayers.

Additionally, in the case of large taxpayers, while being a small number of taxpayers they are typically responsible for a disproportionate share of tax revenue collected. The data indicates that for most jurisdictions between 30% 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 6.5.). On average, 2.4% of corporate taxpayers covered by those programmes account for 44% of all revenue collected (see Table 6.2.).

**Table 6.2. Importance of large taxpayer offices / programmes (LTO/P), 2021**

FTEs in LTO/P as percentage of total FTEs	Corporate taxpayers managed through LTO/P as percentage of active corporate taxpayers	Percentage of net revenue administered under LTO/P in relation to total net revenue collected by the tax administration	FTEs on audit, investigation and other verification function in the LTO/P as percentage of total FTEs in LTO/P	Total value of additional assessments raised through LTO/P as percentage of total value of additional assessments raised from audits
4.0	2.4	43.6	62.8	31.3

Note: The table shows the average percentages across the jurisdictions that were able to provide the information.

Sources: Tables D.16. and D.17.

While the management of these groups of taxpayers is often undertaken as a programme, in a large number of jurisdictions these programmes are 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 (see Figure 6.6.). However, on average close to two-thirds of tax administration staff in large taxpayer offices or programmes are working on audit, investigation and other verification related issues (see Table 6.2.).

#### **Box 6.4. Examples – Supporting business taxpayers**

##### **China (People’s Republic of) – Integrated information system for large business**

Previously, provincial and municipal offices of the State Taxation Administration (STA) of the People’s Republic of China only had access to the information on business within their jurisdiction, meaning they did not have the whole picture of a business operating across multiple provinces or municipalities. Now the STA is building an integrated information system for large business, to monitor taxable income sources, better control risks, provide more tailored services, and improve economic analysis.

This means tax offices at central, provincial and municipal levels can have appropriate access to information on a business and the information is grouped into 11 categories, including tax payments, social security payments, financial statements and so on. With just a few clicks, the system can automatically generate 7 themed reports including an overview, geographic distribution, tax and fee payment, business activities, compliance record, tax source status and customised enquiries. Using a different combination of data sets and administration logic, the STA can also design 24 scenarios for a business, covering the major risk possibilities. The system can also use a special set of risk indicators to identify a group of large businesses for further scrutiny.

The system offers a powerful tool for economic analysis. With data and information at different levels of granularity available, analysts can look at economic pictures of different areas, sectors and industries, supporting policy design and adjustment.

##### **Georgia – Administration of large taxpayers**

Large taxpayers make a significant contribution to the Georgia state budget, but the tax risks associated with them are much larger and more complex than the tax risks of other categories of taxpayers, which means they can pose a risk to tax revenues. Therefore, their activities require close monitoring.

To address this, the Office of Large Taxpayers was established in the Georgia Revenue Service, which, by offering highly qualified services and timely response to tax risks, ensures the maximum promotion of voluntary tax compliance of the taxpayers.

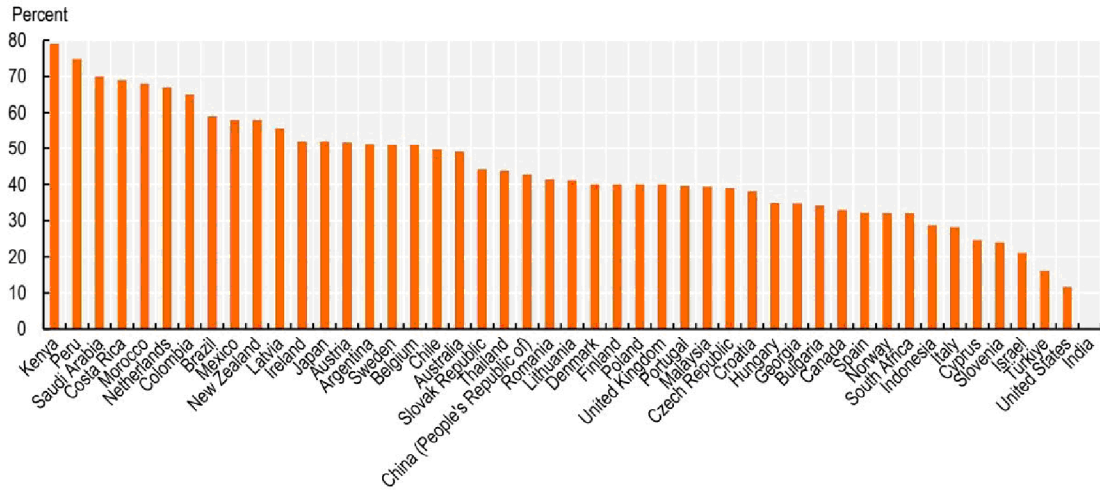
To improve the administration of large taxpayers, the updated Strategy for the Administration of Large Taxpayers for 2022-2024 was developed. This is supported by a standard reporting system through

which various types of information are monitored on a daily basis. The strategy aims to improve the tax administration of large taxpayers through centralised, fair and transparent approaches. To achieve this goal, the following tasks were planned:


- Develop services tailored to the needs of large taxpayers;
- Strengthen risk management process related to tax compliance; and
- Improve human resource capabilities.

Sources: China (People’s Republic of) (2023) and Georgia (2023).

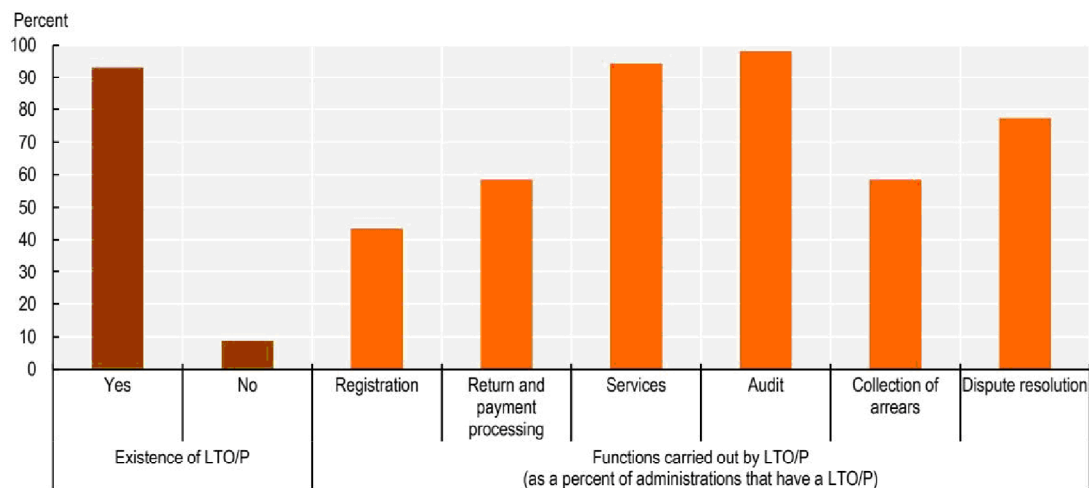
**Figure 6.5. Percentage of revenue administered through large taxpayer offices/programmes, 2021**




Source: Table D.17.

StatLink  <https://stat.link/1ct5ag>

**Figure 6.6. Large taxpayer offices / programmes: Existence and functions carried out, 2021**

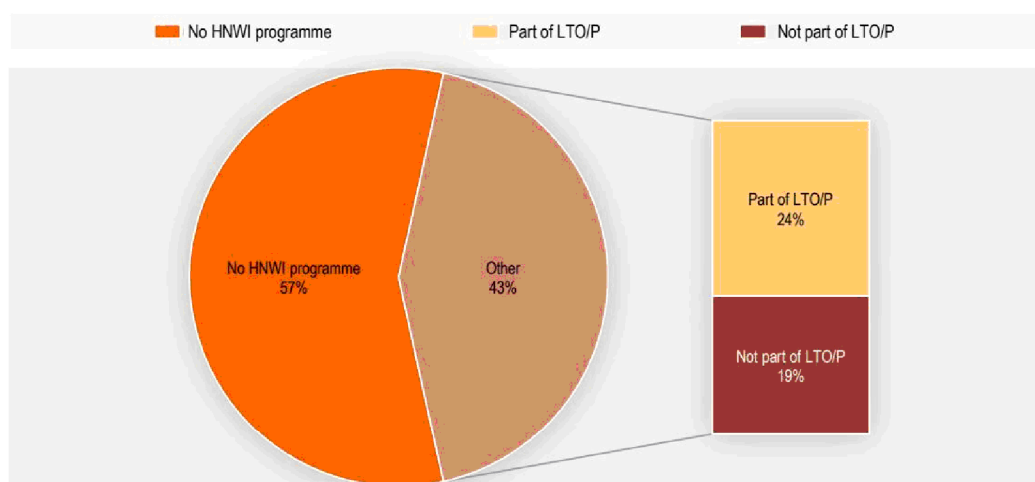


Sources: Tables A.32. to A.34.

StatLink  <https://stat.link/ngvke1>

**Figure 6.7. HNWI programmes, 2021**

Percent of administrations



Source: Table A.38.

StatLink  <https://stat.link/z4qlki>

## **Planning for future risks**

While it is key for tax administrations to understand current compliance risks and prepare appropriate response strategies, it is equally important to understand and prevent risks which may arise in the future. The increasing availability of data along with the enhanced capacity of tax administrations to handle and analyse that data allows tax administrations to more robustly assess future tax risks. Figure 6.3. highlights the large number of tax administrations who engage in forecasting, which is putting them in a position to assess where new compliance risks may arise and develop in time the necessary mitigation strategies as the ability to identify, understand and manage risks in a rapidly changing environment is a critical element of successful and resilient tax administration.

This is leading to the creation of sophisticated risk management programmes, that can embed risk management across the organisation rather than leaving it in silos across the organisation. It also helps building a risk culture within tax administrations, as Box 6.5. illustrates.

### **Box 6.5. Examples – Emerging risks**

#### **Brazil – Integrated risk management programme**

Historically, the Brazilian Revenue Authority (Receita Federal do Brasil – RFB) managed institutional risks based on its organisational structure and operational framework, while tax compliance risks were handled in a fragmented manner by various business units according to their own criteria and understanding of the risks.

Since 2021, and with the technical support of international organisations, a strategic programme was established to restructure the organisation's risk management model supported by a multi-faceted, integrated approach. Programme milestones included a new risk management policy, the design of a National Risk Management Office with regional focal points and revised roles, responsibilities, delegations of authority and governance structures.

The new model is to be applied across all business areas and levels of the organisation and intends to provide better coordination of RFB's risk treatment initiatives, which are identified using an integrated risk assessment system using advanced technology tools. Outcomes generated by the framework are fully integrated into real-time business performance reporting.

Advanced data analytics is leveraged to collect, convert, and process large volumes of data in RFB's databases into clear and readily understandable risk management information to inform proactive decision-making. The goal is to make this information increasingly available in real time and to staff across the organisation. Ultimately, RFB's goal is to have its risk management model embedded into core administration values and reflected in day-to-day behaviours and its organisational culture.

#### **New Zealand – Enterprise risk**

New Zealand Inland Revenue (IR) has simplified the language and approach used to manage risks across the organisation, starting with a consolidation of controls for the strategic risks, and ensuring clear ownership – this is aligned to functional accountabilities.

The controls used to manage strategic risks were simplified to align to the functional accountabilities and organisational structure, so there are clear lines of responsibility and action. Assurance of the effectiveness and completion of remediation actions are then linked to existing work programmes and tracked. Additional layers of definition can be added by the control owners to define the controls, or to define specific elements that are effective or being improved. When remediation is underway this often links to initiatives that are approved as part of the enterprise portfolio.



Reporting on risks and controls is managed through a centralised toolset, so there is one source of truth about the effectiveness of a control or the level of risk. The actions and owner of the work are visible and managed through the same toolset, with links to portfolio management, project management and enterprise planning activities. IR's business groups can add their own risks and controls to the toolset and link them to the strategic risks and controls. This is starting to provide a more comprehensive view of the risks being managed by the organisation, and the operational activities this impacts.

The change in approach to a centralised and transparent control framework has allowed IR to start managing the strategic risks in a co-ordinated way that links to operational activities and control improvements.

Sources: Brazil (2023) and New Zealand (2023).

Planning for future risks is particularly important as jurisdictions consider the ongoing impacts of global challenges and how they influence taxpayer's compliance behaviour. This is likely to be challenging as jurisdictions emerge from the pandemic when most administrations reduced or suspended compliance activities, impacting the data available to accurately assess risk. The sophisticated modelling analytics and modelling skills that tax administrations built up before the pandemic have been used to respond to these challenges, and to take account of any changes in taxpayer behaviour.

An interesting development within tax administrations is the recognition that the power of data analysis needs to be decentralised and spread more widely across the organisation. Through this, tax administrations can be ready to identify emerging risks more quickly and identify possible early interventions. As a result, tax administrations are now also exploring how artificial intelligence can be incorporated into compliance processes across the organisation, and it is likely that this will be central to the digital transformation of compliance management, and risk management in the future. Examples of this can be seen in Box 6.6.

### **Box 6.6. Examples – Use of artificial intelligence**

#### **Ireland – Artificial intelligence proof of concepts**

To simplify the customer experience and to remove the need for the taxpayer to self-categorise their enquiry, artificial intelligence (AI) was used to automate the process of categorising and routing of enquiries to the appropriate subject matter experts for action.

To deliver this, proof of concept pilots were developed and deployed to determine the best fit for various scenarios. Business and ICT teams worked collaboratively to identify a range of taxpayer enquiries and used these to train the technology models to automate the task. Through a suite of iterative reviews of the data, a model was established using the best-fit technology. As a result, radical simplification of the online user interface was implemented to remove complicated drop-down menus. The original AI technology and models are now being copied and finessed to incorporate other taxpayer cohorts and query types.

Through this work, there was an uplift from 70% accuracy levels of self-categorisation by taxpayers to 97% accuracy in top-level categorisation of enquiries. On average, auto classification has reduced overall routing time to subject matter experts by over 24 hours. The simplified taxpayer user interface means that a taxpayer can now submit an enquiry in 'free text' format without having to consider tax categories and sub-categories. This has encouraged taxpayers to use digital first channels when contacting Revenue by making the submission of an enquiry much simpler, and the more accurate

classification of enquiries gives more business insight into customer requirements allowing more targeted responses.

### **Israel – Automated logical assessment project**

In Israel, the tax authority is using advanced digital tools to promote and streamline their work. For example, an automated real estate tax assessment project combines AI components that simulate the work of the tax inspector who conducts the real estate tax assessment with the computing capabilities of online systems. This reduces the duration of assessment and allows officials to focus on the more complex cases with the potential for high tax return.

The project was driven by a change which made the filing of the sale and purchase of real estate online instead of manual reporting. The automated real estate tax assessment project started gradually in 2022 while examining the programming at each stage and improving the logical mechanism as needed. During 2022, computerised logical assessments were used in 30 500 real estate transactions (approximately 34% of all similar transactions).

The standard time for an assessment, by a tax inspector, in a real estate transaction is one hour. Consequently, in 2022, the automatic system saved 30 500 working hours. In addition, 30 500 sellers and buyers completed the interaction with the tax authority immediately upon submitting the online statement by themselves or through a representative. The parties to the transaction also immediately received tax approvals and relevant necessary documents.

The automatic assessments carried out in 2022 handled transactions exempt from capital gains tax. Transactions that have been logically checked and found to be defective are forwarded to the tax inspector, including an explanation of the deficiency. In 2022, the average tax return per hour of work in the department handling property tax exemption assessments increased by 48% compared to 2021.

### **Singapore – The ‘One Payout Platform’**

In 2022, the Inland Revenue Authority of Singapore (IRAS) developed the One Payout Platform, a smart analysis solution, to enhance its capability in detecting attempts to game the system and also in identifying risky payouts. This platform aims to provide a “one-stop” solution to streamline payout risk assessments and assist IRAS officers in identifying potential abusers of various payout schemes.

Incorporated with data analytics and machine learning capabilities, the platform has the following key components:

- A variety of data and anti-gaming models are consolidated and integrated into the platform to assist fast and effective analysis. Officers can directly interact with the models for timely case selection and where required, tweak the model parameters to perform risk simulation in real-time.
- The rule-based risk scoring engine applies business logic for risk assessment, while the predictive models (machine learning) assess the risk severity for the new cases. With the combination of the 2 risk scoring engines, more efficient and robust risk assessment can be achieved for better case prioritisation.
- Intuitive user interfaces allow officers to self-help, perform the analysis and select cases easily. The compilation of relevant information and visual representations into a one-stop portal allows officers to review details of the case at one glance and make fast decisions during case audits.

Through this, the One Payout Platform enables fast and effective detection of potential fraud in new payout schemes, resulting in productivity savings and allowing a much shorter turnaround time to onboard new schemes.

### Sweden – Risk evaluation

By using AI to distinguish high-risk and low-risk cases, the STA was able to identify and disallow incorrect tax deduction claims amounting to SEK 300 million (representing SEK 42 million in taxes). By combining AI with other techniques, it was possible to achieve this without significant additional resources.

The STA introduced an automated system, and an AI model is used to recognise patterns in order to identify deduction claims where there is a high likelihood that the individual will not respond to a request for proof to substantiate the claim.

The AI model is trained on data from previously conducted investigations, enabling it to detect characteristics common to those who do not respond to requests for substantiation. A typical example is the presence of conflicting information, such as when an individual claims a deduction for travel expenses to work but lacks income from employment.

The STA's automated system generated 19 000 requests for substantiation that would not otherwise have been issued. The system sends automated requests based on the results generated by the AI model. Failure to respond results in an automatic refusal of the claimed deduction. If the STA receives a reply, the case is processed manually in the usual way.

Sources: Ireland (2023), Israel (2023), Singapore (2023) and Sweden (2023).

## Delivery of compliance actions

“Compliance actions” undertaken by tax administrations to determine whether taxpayers have properly reported their tax liability are changing. As set out earlier, the increasing availability of data and the introduction of sophisticated analytical models are allowing administrations to better identify returns and claims or transactions which might require further review or be fraudulent. Furthermore, these models, many of which can operate in real-time, are allowing administrations to conduct automated electronic checks on all returns or on transactions of a particular type.

### *Electronic compliance checks*

While traditional audits (including comprehensive, issue or desk audits) are often the primary verification activities, the use of automated electronic checks or using rules-based approaches to treat some defined risks (for example, automatically denying a claim, issuing a letter or matching a transaction) is providing administrations with more effective and efficient ways to undertake some of this work. Box 6.6. sets out examples of this.

These approaches do, however, raise the question of how to reflect those automated electronic checks in the performance information that administrations report in ISORA data. To include all checking may distort coverage, adjustment and yield rates. However, where it replaces previously undertaken manual actions it would seem appropriate to reflect what administrations are now doing in this area.

In this respect, administrations completing the ISORA survey were invited to break down the total value of additional assessments raised from audit and verification actions into (i) audits and (ii) electronic compliance checks (defined as electronic checks, validation and matching of taxpayer information). Only a few administrations were able to provide information on electronic compliance checks. However, for some of those administrations, electronic compliance checks make-up an important part of the additional assessments raised through all audits and verification actions. (See Table D.39.)

Thanks to the growth in data and more powerful technology resources there is an increasing trend being the development of 'real-time' compliance checks, helping catch errors earlier in the process as Box 6.7. illustrates.

### **Box 6.7. Examples – Electronic compliance checks**

#### **India – eVerification checks**

The eVerification Scheme launched by the Income-Tax Department in India, gives taxpayers all the electronic financial information pertaining to them, collected from various sources by the tax administration. Taxpayers can then verify the information for the purpose of accurate and comprehensive determination of the income of a taxpayer.

Three outcomes are possible. Firstly, they may accept the information and include it in their filing. Alternatively, if they may not accept the information as correct and consider there to be a mismatch, then the information is re-verified. Finally, if there is no response from the taxpayer, the reported data is classified as income.

In case of a mismatch, there is electronic communication with the sources of information, such as banks and offices which deal with immovable property transactions, etc. These third-party sources may correct the information or revalidate the existing information as correct. In case the mismatch still persists, a risk assessment of such cases is undertaken. If the data is of no or low risk, the case is closed. However, in case the risk is considered to be high, preliminary verification is undertaken by the tax authorities and the preliminary verification report is matched with the return of income to prepare the final verification report.

If as part of the production of the final verification report it is assessed that the risk involved is low or there is no risk involved, the case is closed. However, in case of high risk, the information is either passed to the tax audit team (in case there is already an ongoing audit) or appropriate action will be taken by the tax department.

#### **Ireland – Real-Time Risk Dashboard**

Revenue previously used a rules-based engine to run a risk analysis against PAYE customers when a refund request was triggered. This risk analysis was a nightly batch process which ran a set of predefined rules against PAYE customer data to determine whether the customer is deemed risky. If the customer is high risk the refund is blocked and a risk work item is generated for further investigation.

The newly implemented real-time risk framework contains three different modules: Real-Time Risk (RTR) Dashboard, Rules Manager and Rules Simulator. The RTR Dashboard provides real time statistics and export functionalities to present information to be used in management information and potentially AI processes. The Rules Manager allows the business owners to manage the risk rules allowing the team complete ownership of the application. The Rules Simulator provides the business owners the ability to test and simulate new or existing rules before enabling the rules in live.

The new application examines refund/repayment submissions from customers in real-time and blocks risky payments using rules created by the compliance team. Revenue can now respond immediately to new trends by simulating and then enabling new rules. This application is dynamic and the compliance team can turn rules on and off in the live environment. There is the option to analyse previous and current data using the RTR Simulator. A further development is currently underway to enable the frontline compliance team the ability to manage and create rules themselves and independently have a real time solution to risky behaviour.

### Lithuania – Controlling risk in real-time

The smart tax administration subsystem (i.KON), which was implemented in 2020, allows for the identification of discrepancies in real-time, ensuring faster and more efficient processing of incoming data, and can assess tax risks more quickly. i.KON automatically selects payers based on various risk criteria.

The efficiency of the i.KON subsystem and the ability of the State Tax Inspectorate of Lithuania to properly exploit and manage the automated processes realised in the subsystem are reflected in high and improving performance. On the basis of the i.KON risk analysis, taxpayers declared an additional EUR 21 million in 2021 and EUR 59 million in 2022. It is noteworthy that these significant and growing results were achieved through relatively small investments - the development of the i.KON subsystem cost only EUR 1.5 million. Since the start of i.KON, the results of the actions carried out on the basis of i.KON risk analysis represent the majority of the results of the monitoring actions.

For a more detailed explanation see Annex 6.A.

Sources: India (2023), Ireland (2023) and Lithuania (2023).

## Audits

On average, audit adjustment rates have remained stable over the period 2018 to 2021 (see Table 6.3). However, as shown in Figure 6.8., the rates vary significantly across the administrations covered by this report. The high adjustment rates can of course result from highly targeted audits, particularly during the COVID-19 pandemic where some administrations focused audit activities on high-risk cases such as fraudulent activities (OECD, 2021<sup>[9]</sup>).

The importance of audits can also be seen when looking at the additional assessments raised. On average, the additional assessments raised from audits correspond to around 4% of total revenue collections. This has been relatively flat over the years 2018 to 2021 (see Table 6.3). Looking at the jurisdiction level data, it can be seen that there are significant differences across the 52 administrations that were able to provide data (see Figure 6.9.).

**Table 6.3. Audit adjustment rates and additional assessments raised, 2018-2021**

	2018	2019	2020	2021
Audit adjustment rates – in percent (39 jurisdictions)	57.4	58.3	58.6	61.7
Additional assessments raised through audits as a percentage of tax collections (48 jurisdictions)	4.1	4.1	4.5	3.9

Note: The table shows the average audit adjustment rates and additional assessments raised through audits (excluding electronic compliance checks) for those jurisdictions that were able to provide the information for the years 2018 to 2021. The number of jurisdictions for which data was available is shown in parenthesis.

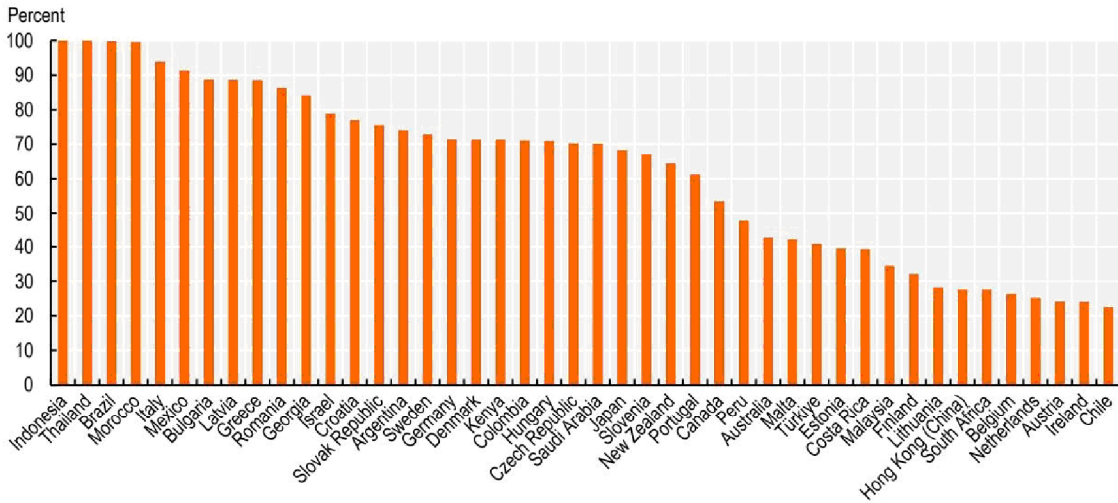
Sources: Tables D.38. and D.39.

Breaking this down by tax type, it shows that the ratio of additional assessments raised to tax collected is the greatest for corporate income tax (CIT). On average, CIT additional assessment raised as a percentage of CIT collected is 8.8%, more than double the percentage for value added tax (3.6%) and more than three times the percentage for personal income tax (2.4%). (See Figure 6.10.)

In many jurisdictions, the additional assessments raised through large taxpayer offices or programmes (LTO/P) make-up a significant share of the total additional assessments raised from audits (see Figure

6.11.). On average, LTO/PS contribute around 30% of the total additional assessments raised from audits (see Table 6.2.).

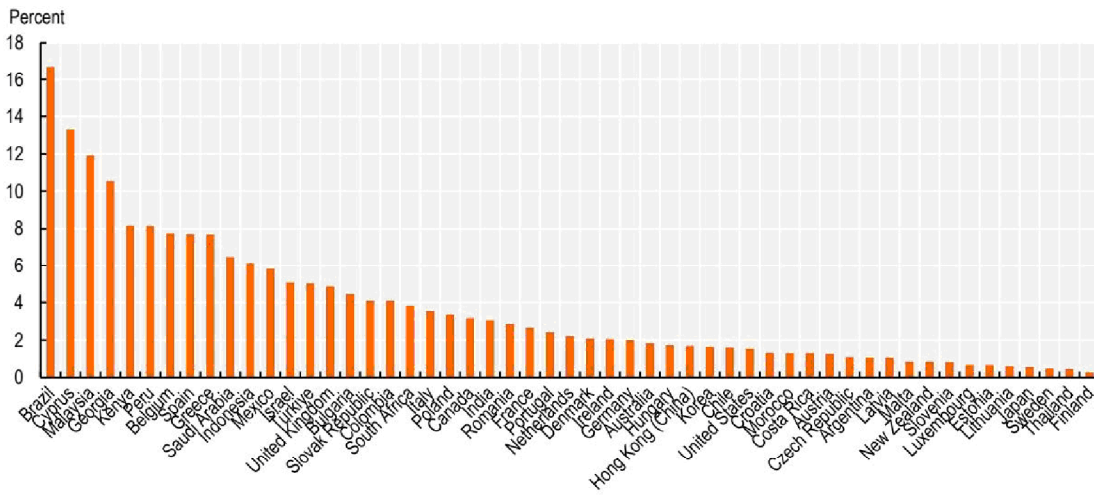
**Figure 6.8. Audit adjustment rates, 2021**



Source: Table D.38.

StatLink <https://stat.link/labn9s>

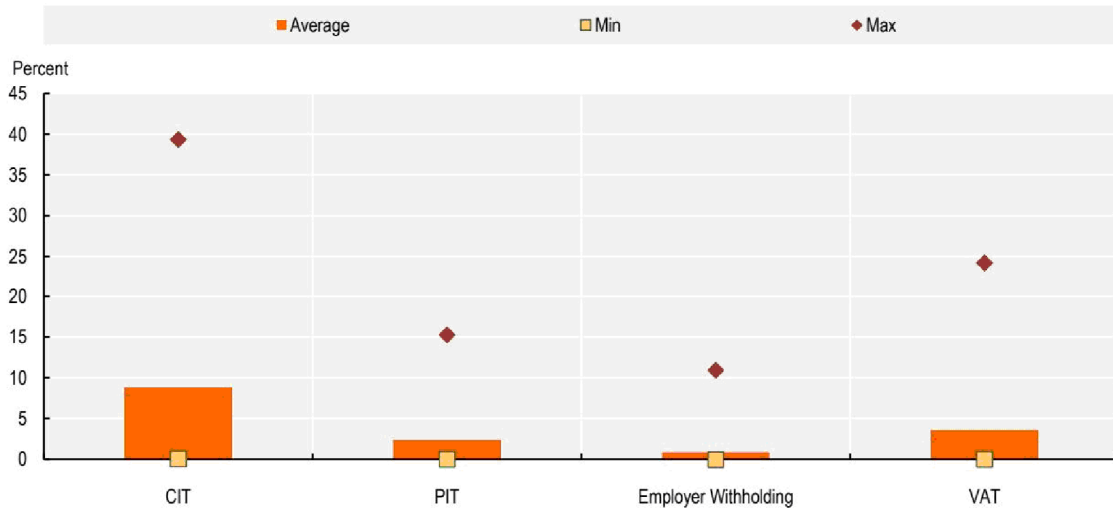
**Figure 6.9. Additional assessments raised through audit as percentage of tax collections, 2021**



Source: Table D.39.

StatLink <https://stat.link/m0xhz5>

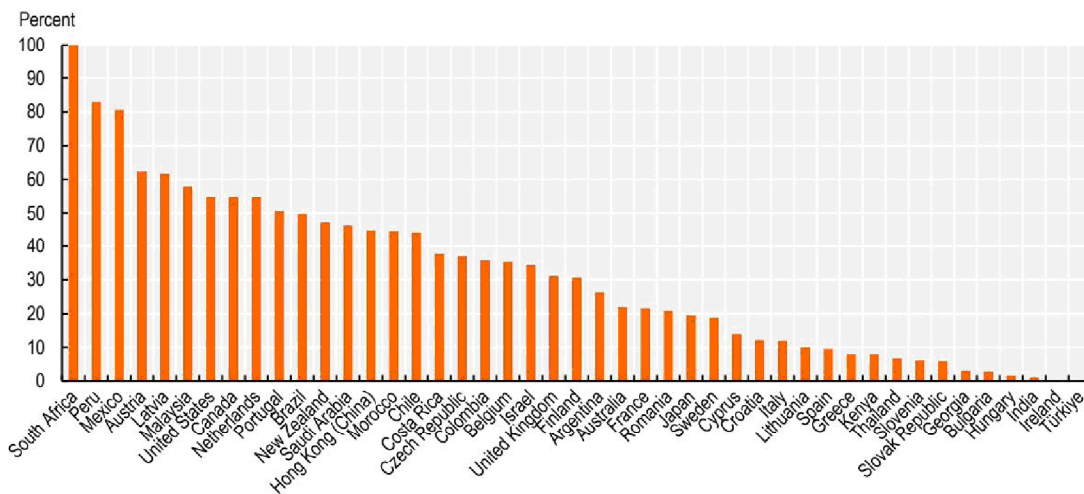
**Figure 6.10. Additional assessments raised through audit as percentage of tax collected by tax type, 2021**



Note: CIT data for Norway has been excluded from the calculations as it would distort the average ratios.  
Sources: Tables D.40. and D.41.

StatLink <https://stat.link/23y7im>

**Figure 6.11. Additional assessments raised from audits undertaken by LTO/P as a percentage of additional assessments raised from all audits, 2021**



Source: Table D.17.

StatLink <https://stat.link/87vayu>

### ***Moving audit work to a virtual environment***

Traditionally, administrations apply a variety of different audit types including comprehensive audits, issue-oriented audits, inspections of books and records, and in-depth investigations of suspected tax fraud. Often those audits require the administration to visit the taxpayer's premises (so called field audits).

Advances in technology have led administrations to consider new ways of engaging with taxpayers during the audit process including the electronic submission of audit related documentation. This trend was accelerated as a result of the COVID-19 crisis as the closure of tax offices and the move to remote working for large numbers of tax officials changed how they approached audits.

The 2021 OECD report *Tax Administration: Digital Resilience in the COVID-19 Environment* (OECD, 2021<sup>[9]</sup>) observed this as well and noted that of the 32 administrations covered by that report, close to ninety percent shifted parts of their field audit work to a virtual / digital environment. Moreover, 76% of those administrations plan to continue moving field audit work to a virtual/digital environment going forward. This is supported by an increased use of technology in audits which is helping drive efficiency. Box 6.8. highlights some leading practices in that space.

#### **Box 6.8. Examples – Technology in audits**

##### **Australia – Using automation to influence high risk tax agents**

There are approximately 46 000 registered tax agents in Australia who lodge annual tax returns for nearly 6 million individual taxpayers. The ATO's Tax Agent Strategy identifies agents who display high risk behaviour. Using automatic processes, a pilot project identified high risk lodgements and then issued a notice to the tax agent and taxpayer to substantiate work related expense claims within 28 days. Non-response results in the claims being auto-adjusted, with no need for an audit. This resulted in an effective doubling of the number of adjustments that could be completed.

See Annex 6.A for supporting material.

##### **China (People's Republic of) – The internal control of Smart Tax Inspection**

Smart Tax Inspection is an integrated platform covering both administrative management and law enforcement aspects of tax inspection. The system can detect common operational problems at the tax official's end, and actively block the process if it does not conform to the prescribed working procedure. It is also equipped with 37 post-event automatic scanning and monitoring indicators, covering important risk nodes with regards to case selection, inspection, review and enforcement. When a risk is identified, one task to be processed will be generated and assigned to the relevant person in charge to handle and provide feedback.

It also has automatic and effective internal control over the closed cycle of tax inspection. For instance, if law enforcement risks occur to the same local inspection agency frequently in 3 consecutive months without any sign of improvement, the system will automatically remind the head of that inspection agency. Another example is, when the risk task is overdue at any link, the system will automatically generate and send reminders up to the Tax Inspection Bureau of STA headquarters, to accelerate the process.

Furthermore, multi-dimensional and smart analytics based on the internal control indicators can be generated automatically, which can help STA to identify and respond to management risks. Significant risks which frequently occur in a certain period of time can also be highlighted and circulated for action in a timely manner.



### **Mexico – Virtual/digital audits and data rooms**

The Mexican Tax Administration Service (SAT) uses remote audit (e-audit), which permits electronic communication between auditee and auditor. The electronic signatures of the representatives of the legal entities being audited are verified by procedures such as identity validation and the Biometric Accreditation Service. The SAT IT department authorises the identity of the audit team members as their own staff or authorised personal; and all of them also use the Biometric Accreditation Service for their electronic signatures. The legal and regulatory restrictions for access to information are observed during the audits and specific information security controls and protocols are implemented for the e-audit. Different procedures are used, such as checklists, questionnaires, and interviews to review evidence, which can be provided in distinct formats (documents, video, and audio recordings).

### **Slovak Republic – Expert support for tax audits**

A new system was developed that enables the central management of tax audits and onsite investigations and thanks to the central registration of all requests for tax audits, the complete life cycle of information is captured from its inclusion in the audit activity plan to the feedback from the actions carried out by the tax auditor.

The system also provides automated support to tax auditors for the purpose of fast and procedurally correct execution of tax audits (including support for new or less experienced tax auditors) and detailed information about the tax entity from all available databases.

It can provide a precisely defined recommended course of action for the tax auditor in the tax audit process (expert decision tree), including applicable legal norms, applicable case law in the form of sub-recommended tasks that the tax auditor is obliged to answer, and provide alerts to changes in the audited entities or related audits, helping preserve deadlines.

This is permitting reports and statistics down to the level of individual findings from the recommended actions as the manager staff gets a better overview of the activities and results of his audit department, each tax auditor's workload, their success rate in relation to commodities, types of fraud, etc. Through this the financial administration as a whole gains more detailed insights into the audit activity, including a real-time view of the performance of the monitored indicators.

Sources: Australia (2023), China (People's Republic of) (2023), Mexico (2023) and Slovak Republic (2023).

## **Tax crime investigations**

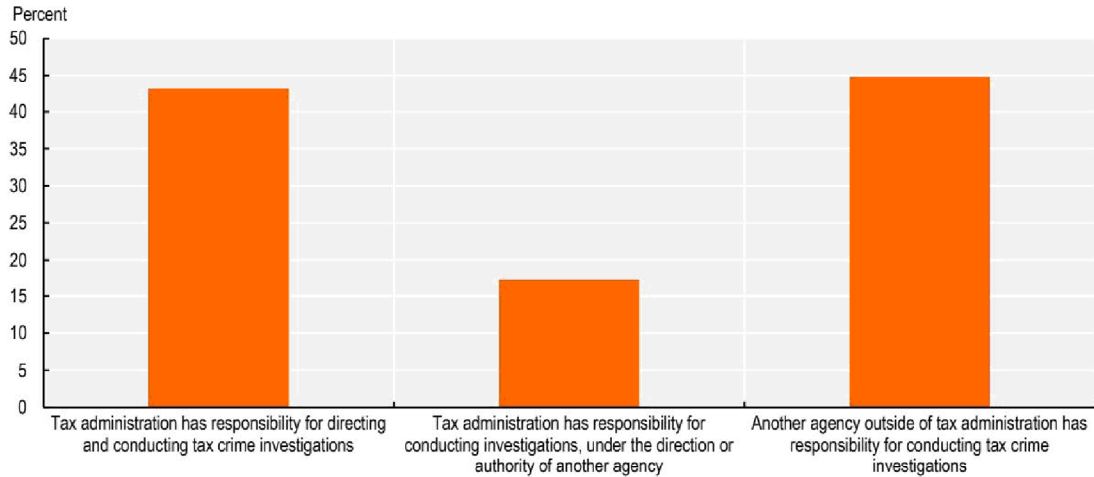
Tax crime refers to a conduct that violates a tax law and can be investigated, prosecuted and sentenced under criminal procedures within the criminal justice system. There is a range of organisational approaches for conducting tax crime investigations and the ISORA 2022 survey looked at the responsibility for directing and conducting those investigations.

The information gathered through the survey shows that 55% of the tax administrations covered in this publication are involved in conducting tax crime investigations (Table A.69.). The majority of those administrations have responsibility for both conducting and directing tax crime investigations, while the others have responsibility for solely conducting investigations, under the direction or authority of another agency, such as the police or public prosecutor (see Figure 6.12.).

In the cases of administrations that do not have any responsibility for conducting tax crime investigations, this work is done by another agency, such as the police or public prosecutor. This could also be a specialist tax agency, established outside the tax administration.

**Figure 6.12. Role of administrations in tax crime investigations, 2021**

Percent of administrations



Note: In some jurisdictions, the organisational approach for tax crime investigations may depend on the tax offence or tax-related criminal proceedings. In those cases, an administration may have selected multiple answer options. This is why the percentages add up to more than 100%.

Source: Table A.69.

StatLink  <https://stat.link/an21u4>

Table 6.4. shows the total number of cases referred for prosecution during the fiscal year for the 32 administrations that have responsibility for conducting tax crime investigations. While the number of cases referred for prosecution was similar in 2018 and 2019, there was a significant reduction in the number of cases referred for prosecution during 2020 and 2021.

This is also reflected in the jurisdiction level data, which shows that around 70% of administrations that have responsibility for conducting tax crime investigations referred fewer cases for prosecution in 2021 (see Table A.69.).

**Table 6.4. Evolution of tax crime investigation cases referred for prosecution between 2018 and 2021**

Year	No. of cases referred for prosecution during the fiscal year	Change in percent (compared to previous year)
2018	41 631	
2019	40 426	-2.9
2020	33 874	-16.2
2021	30 490	-10.0

Note: Only includes administrations that have responsibility.

Source: Table A.69.

There could be many reasons for this reduction. This could include a genuine decline in cases, administrations reducing staff in this area as part of a wider reallocation of resources due to the pandemic, or the pandemic may have imposed constraints on the ability to refer cases for prosecution. Future editions of this series will be able to identify if the reduction this year was a 'blip' caused by the pandemic or the start of a long-term trend.

Finding better ways to fight tax crime is a high priority as money laundering, corruption, terrorist financing, and other financial crimes can threaten the strategic, political and economic interests of jurisdictions. Tax administrations, as gatekeepers to a sound financial system, play a critical role in countering these activities and are in possession of information that could be crucial for a successful criminal tax investigation.

### Box 6.9. Tax Inspectors Without Borders for Criminal Investigation

Tax Inspectors Without Borders for Criminal Investigation (TIWB-CI) is a joint OECD/UNDP initiative which provides bilateral capacity building assistance in the area of tax crime investigation to developing countries, using the *OECD Council Recommendation on the Ten Global Principles for Fighting Tax Crime* (OECD, 2022<sup>[10]</sup>) as building blocks. A bespoke bilateral programme, TIWB-CI combines the technical experience of the OECD Task Force on Tax Crimes and Other Crimes (TFTC) and the ground level of presence of the UNDP, complementing other OECD tax crime multilateral initiatives such as the Academy for Tax and Financial Crime Investigation.

The TIWB-CI programme is a three-stage process starting with a country self-assessment exercise through the *OECD Tax Crime Investigation Maturity Model* (OECD, 2020<sup>[11]</sup>) to assess capacity gaps. During the second phase, the actual implementation process starts with the development of a work plan that defines the scope of the programme based on the self-assessment exercise, to be delivered within 18 to 24 either with the help of experts from a partner administration or a UNDP roster expert. A monitoring and evaluation framework, with success indicators, guides the implementation process.

Given the strong linkages between tax crime and other financial crimes, the TIWB-CI programme focuses on inculcating a culture of the 'Whole of Government Approach' by bringing all enforcement agencies together. Further, the TFTC is currently developing a new *Trust Maturity Model*, to ascertain the current level of trust between different stakeholders involved in financial crime investigation, with the help of a trust barometer and to identify barriers to trust, so that a proactive trust policy can be developed for operationalising the 'Whole of Government Approach'. This online tool would assist enforcement agencies in a jurisdiction develop a common understanding of the challenges posed by illicit financial flows and a joint strategy for countering them, by pooling of resources available to various agencies.

TIWB-CI programmes are currently being implemented in eight developing countries.

Note: For more information on the OECD Academy for Tax and Financial Crime Investigation see <https://www.oecd.org/tax/crime/tax-crime-academy/> (accessed on 22 May 2023).

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## Annex 6.A. Links to supporting material (accessed on 26 May 2023)

- Box 6.2. – Chile: Link to more information on the income tax dashboard: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.6.2-chile-income-tax-dashboard.pdf>
- Box 6.2. – Finland: Link to more information on the Income Register: <https://www.vero.fi/en/incomes-register/about-us/>
- Box 6.7. – Lithuania: Link to a detailed description of the i.KON system: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.6.7-lithuania-controlling-risk-in-real-time.pdf>
- Box 6.8. – Australia: Link to more information on the ATO's tax agent 'active verification' pilot: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.6.8-australia-tax-agent-pilot.pdf>

# 7 Collection

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This chapter comments on tax administration performance in managing the collection of outstanding taxes, and describes the features of a modern tax debt collection function. It goes on to provide examples of approaches applied by administrations to prevent debt being incurred.

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## Introduction

The collection function involves engaging with, and potentially taking enforcement action against those who do not file a return on time, and/or do not make a payment when it is due. Even with the growth in pre-filled or no return approaches over past years (see Chapter 4), the filing of a tax return or declaration still is still required in many jurisdictions participating in this publication. Although 2021 on-time filing rates averaged between 76% and 88%, at least 160 million returns were not filed on time that year (see Tables 4.4. and A.44. to A.47.). It is important therefore that administrations continue to focus efforts on improving the timely collection of late and outstanding returns.

Looking at the collection of late payments, all but one administration participating in the survey report staff resources being devoted to taking action to secure the payment of overdue tax payments (the Chilean tax administration reported not being responsible for debt collection; see Table A.20). Information provided by administrations in ISORA 2022, attributes on average around 11% of total staff numbers to the collection function (see Table D.8).

The legislative framework provides tax officials with powers that enable them to undertake certain actions in relation to the management of debt, the collection of amounts overdue and the enforcement actions that can be taken against delinquent debtors. The 2019 edition in this series had a section summarising the availability of such management, collection and enforcement powers and their usage by tax administrations (OECD, 2019<sup>[1]</sup>). Since then, the ISORA survey did not take a closer look at this topic. However, it is fair to assume that the availability and usage of such powers has not significantly changed.

This chapter:

- Takes a brief look at the features of a modern tax debt collection function and the elements of a successful tax debt management strategy;
- Comments on tax administration performance in managing the collection of outstanding debt; and
- Provides examples of preventive approaches to debt being incurred.

## Features of a debt collection function

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 meet taxpayer’s expectations of how the system will be administered. This means not only taking firm action against taxpayers that knowingly do not comply, but also using more customer service style approaches where taxpayers want to meet their obligations but for understandable reasons, such as short-term cash-flow issues, are not able to do so. Increasingly, tax administrations are taking an end-to-end or systems view of their processes and researching the reasons why returns may not be filed or payments made. They are also using information about the taxpayer’s previous history, to identify patterns and/or anomalies. Box 7.1 highlights some new initiatives in this field.

The 2014 report *Working Smarter in Tax Debt Management* (OECD, 2014<sup>[2]</sup>) provided an overview of the modern tax debt collection function, describing the essential features as:

- **Advanced analytics** – that make 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 minimise the risk of people becoming indebted, to support taxpayers to make payments and to take appropriate 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.
- **Cross border debts** – the proper and timely use of international assistance is crucial, particularly the “Assistance in Collection Articles” in agreements between jurisdictions.

The 2019 report *Successful Tax Debt Management: Measuring Maturity and Supporting Change* (OECD, 2019<sup>[3]</sup>) provides 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, via 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 successful tax debt management initiatives.

### Box 7.1. Examples – Improving debt management

#### Australia – Disclosure of business tax debt

In Australia, the Disclosure of Business Tax Debt legislation aims to support more informed decision making within the business community by making overdue tax debts more visible, as well as encouraging taxpayers to engage with the Australian Taxation Office (ATO) to manage their tax debts. This reduces the unfair advantage obtained by businesses that do not pay their tax debts on time.

Where taxpayers do not actively engage in relation to their tax debts the ATO can disclose these debts to Credit Reporting Bureaus. ATO action is triggered when a client meets the legislative criteria of having an ‘unmanaged’ debt of more than AUD 100 000 outstanding for greater than 90 days and they remain in business.

A systems solution has been implemented to automate client selection and initial contact through issuing an Intent to Disclose notice (ITDN). This enables an “all in” approach with all eligible clients treated with minimal manual intervention. Where the ITDN has not prompted action; follow up phone contact is initiated before disclosure is considered. The combination of these steps has proven to prompt significant client re-engagement in managing their tax debts. As a result, by 31 December 2022 1 in 3 relevant taxpayers contacted had taken action to manage their tax debt, and in excess of AUD 2 billion is now under an active payment arrangement.

#### Georgia – Tax debt management reform

New tax debt management mechanisms have been deployed by the Georgia Revenue Service (GRS) to increase taxpayers' compliance. This has been achieved by:

- Strengthening of preventive mechanisms by informing taxpayers about the possibility of debts accruing and explaining payment methods. This is achieved by sending text messages and electronic messages in the taxpayer’s own page of the GRS.
- Improving the rate of debt recovery by detecting taxpayers with debt in a unified database, which also identifies those with increasing debts and targeting them for interventions. This takes into account the financial position of taxpayers and targets collection measures based on the analysis of information available at the GRS and communication with taxpayers. In addition, for those taxpayers who co-operate a payment schedule can be established.



- Reducing of old debt through use of a “Currently Non-collectable Status” for the taxpayer. Repeated placement under the status of “Currently Non-collectable Status” is a prerequisite for writing off bad debt, and debt write-off is now carried out periodically so it does not affect taxpayer’s business continuity and economic development.

These measures allow for the creation of a more flexible and effective model of debt management based on the principle of co-operation with taxpayers, which is helping improve the level of voluntary compliance, as this model provides timely information to taxpayers on their rights, obligations and expected collection measures.

### **Slovak Republic – Removing the driving license of tax debtors**

In the Slovak Republic from 2020, unless a debtor’s income is reliant on a driving license (for example, a bus driver, lorry driver or taxi driver) a debtor can be prevented from holding a driving license. This procedure begins with issuing a tax notice, giving the debtor a chance to pay the tax overdue and to avoid removing the driving license, along with a chance to appeal the recovery process as such. The recovery procedure is done in close co-operation with the police, as only the police is entitled to withdraw the driving license. The impact on debt collection has been significant, as even tax debts not recoverable for a very long time had been paid by the debtors after launching this new initiative.

### **Spain – Auction app**

In 2022, the Spanish Tax Agency (AEAT) launched a system for searching real estate and goods included in auction procedures. The new functionality aims to increase the number of auctions and make it more accessible to citizens which should increase the values achieved at auction, benefiting both AEAT and debtors. This is complemented by a dedicated telephone service which provides more details to potential bidders and supports those who win the auction.

The system has been designed to locate easily any property and find goods that meets a user’s preferences. It also incorporates the possibility of saving favorite properties and sharing them. In addition, an alert subscription system has been enabled to notify the interested party when an auction that meets the required criteria is launched. Access to the system is granted through various government digital identity platforms, and announcements related to auctions are through the AEAT web portal and social media channels.

### **United Kingdom – Self-Serve Time to Pay**

His Majesty’s Revenue and Customs (HMRC) vision for the future of tax administration in the United Kingdom is designed to improve its resilience, effectiveness, and support for taxpayers, ensuring it is as easy as possible for customers experiencing financial difficulties to pay any arrears that may be owed, whether that’s in full or as part of a payment plan.

In 2022, HMRC expanded the Self-Serve Time to Pay (SSTTP) service to include Employers PAYE. For the first time, employers with an eligible Employers PAYE debt can self-serve when setting up a Time to Pay arrangement.

Customers have told HMRC they prefer to self-serve when it comes to debt, and this service will also allow HMRC’s Customer Service Group to focus on more complex queries and those customers who need one-to-one support when tackling their debts.

The digital service is accessible via several entry points including Business Tax Account, and GOV.UK. The service works by providing eligible customers with the ability to make payments up front and set up a payment plan (by direct debit) for eligible self-assessment and Employers PAYE debts.

In the first two months, around 600 customers set up plans with debt values in excess of GBP 2.5 million. These results have been achieved without active promotion of the service.

During 2023, HMRC will further extend the service, making it available for customers with VAT debts, reducing the burden some of HMRC's most vulnerable customers are experiencing whilst providing reassurance that the tax debt they owe is being managed fairly.

Sources: Australia (2023), Georgia (2023), Slovak Republic (2023), Spain (2023) and United Kingdom (2023).

## Performance in collecting outstanding debt

The total amount of outstanding arrears at fiscal year-end remains very large, in the region of EUR 2.5 trillion. For survey and comparative analysis purposes, "total arrears at year-end" is defined as the total amount of tax debt and debt on other revenue for which the tax administration is responsible that is overdue for payment at the end of the fiscal year. This includes any interest and penalties. The term also includes arrears whose collection has been deferred (for example, as a result of payment arrangements).

The total amount of "collectable arrears" at fiscal year-end was around EUR 710 billion. Collectable arrears is defined as the total arrears figure less any disputed amounts, or amounts that are not legally recoverable. It also includes arrears which are unable to be collected, but where write-off action has not yet occurred.

As a result, and despite efforts to make data comparable, care needs to be taken when comparing specific data points as the administration of taxation systems and administrative practices differ between jurisdictions. Care also needs to be taken because of the impact of the COVID-19 pandemic, which is likely impacting on the 2020 and 2021 figures. This is because many governments took action to support individuals and businesses as part of the pandemic by extending payment terms, or suspending collection of outstanding debt. This may well be a major factor in the increase in collectable arrears after 2019. (CIAT/IOTA/OECD, 2020<sup>(4)</sup>) Future editions of this series will likely continue to reflect the impact of these actions as tax administrations slowly return to pre-pandemic activities.

In 2021, the average ratio for total year-end arrears to net revenue collected was 32% (see Table D.33.). As in past years, it remains heavily influenced by the very large ratios of a small number of jurisdictions that show ratios above 50%. If these jurisdictions are removed, the average reduces to around 14% of net revenue (see Figures 7.1. and 7.2. as well as Table D.33.). (Note: The percentages mentioned in this paragraph are different from those in Table 7.1. as the table shows average arrears ratios for those jurisdictions that were able to provide the information for the years 2018 to 2021.)

**Table 7.1. Evolution of average arrears ratios between 2018 and 2021**

Arrears ratio	2018	2019	2020	2021	Change in percent (between 2018 – 2021)
Total year-end arrears as percentage of net revenue collected (50 jurisdictions)	28.2	27.9	34.7	30.2	+7.0
Total year-end collectable arrears as percentage of total year-end arrears (40 jurisdictions)	50.7	51.5	54.3	54.4	+7.2

Note: The table shows average arrears ratios for those jurisdictions that were able to provide the information for the years 2018 to 2021. The number of jurisdictions for which data was available is shown in parenthesis. Data for Bulgaria was excluded from the calculation of the average for the 'total year-end arrears as a percentage of net revenue collected' as its data for the four years is not comparable (see Table A.55).

Source: Table D.33.

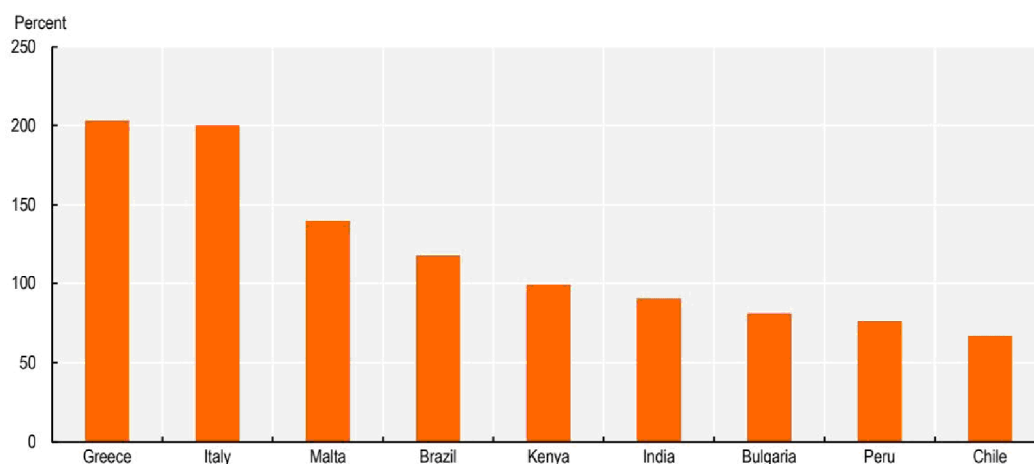
When comparing 2021 and 2020 data, a decrease in total year-end arrears to net revenue collected is visible. This follows the significant increase of the ratio during 2020 – the first year of the pandemic – where the ratio increased on average by more than 20 percent. However, despite this decrease in 2021, the ratio

of total year-end arrears to net revenue collected remains 7 percent above the 2018 values (see Table 7.1.).


This decrease between 2020 and 2021, is also generally reflected in the jurisdiction level data: In 2020 the 'total arrears to net revenue collected' ratio increased in around 85% of jurisdictions, whereas in 2021 the ratio decreased in 68% of jurisdictions (see Table D.33.).

**Figure 7.1. Total year-end arrears as a percent of total net revenue, 2021**

Administrations with a ratio above 50%

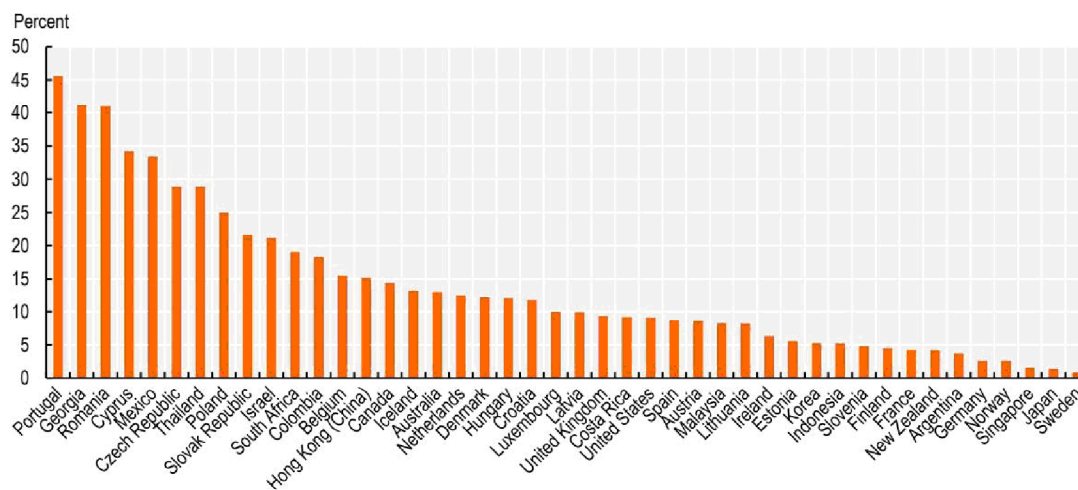


Source: Table D.33.

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**Figure 7.2. Total year-end arrears as a percent of total net revenue, 2021**

Administrations with a ratio below 50%

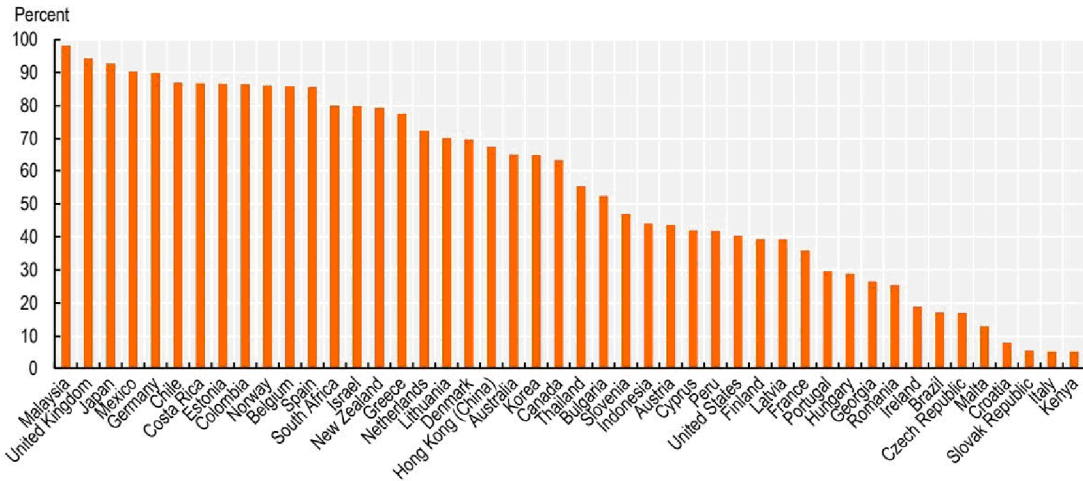


Source: Table D.33.

StatLink  <https://stat.link/3oas50>

Looking at collectable tax arrears, the 2021 data shows that on average more than half of the total arrears are considered collectable. That is an increase of 7% compared to 2018. (See Table 7.1.) However, Figure 7.3. illustrates well the differences between jurisdictions: in some jurisdictions almost all arrears are considered collectable, while in others almost all arrears are considered not collectable.

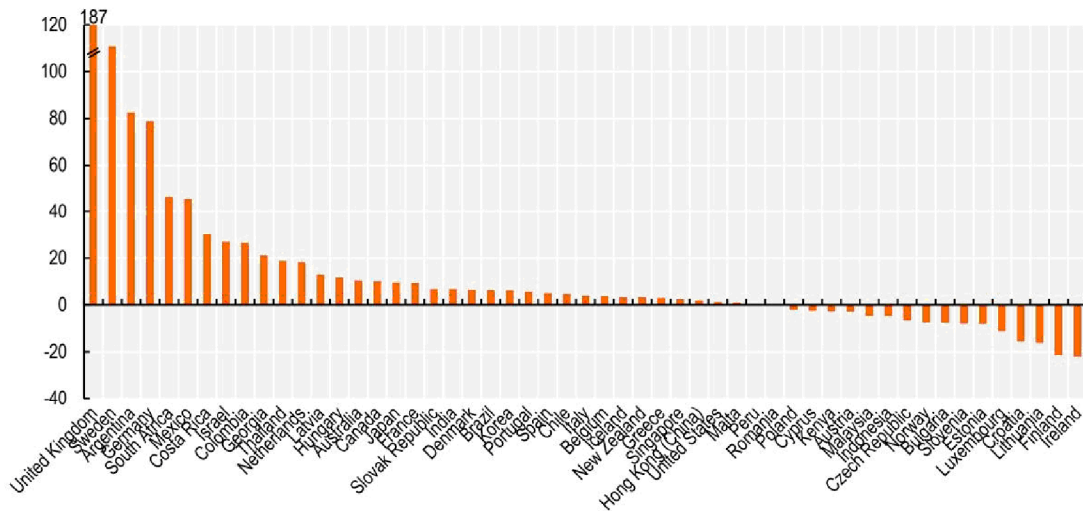
**Figure 7.3. Total year-end collectable arrears as percentage of total year-end arrears, 2021**



Source: Table D.33.

StatLink <https://stat.link/dx216a>

**Figure 7.4. Movement of total arrears between 2020 and 2021**



Source: Table D.34.

StatLink <https://stat.link/5onwt2>

Figure 7.4. show the change of total year-end arrears between 2020 and 2021. In absolute numbers, the total year-end arrears increased in 36 out of 53 jurisdictions that were able to provide the information.

In looking at the amount of arrears for the main tax types (see Table 7.2.), it seems that individuals are more likely to pay on time than businesses. The average ratio of corporate income tax (CIT) arrears to CIT net revenue collected and the ratio for value added taxes (VAT) are around 25% in 2021. At the same time, the ratio for personal income tax (PIT) is much lower at 15%.

The data also confirms the difficulties that businesses encountered at the beginning of the pandemic. The average ratios for CIT and for VAT increased significantly between 2019 and 2020 but went back to pre-pandemic levels in 2021.

At around 7%, the ratio is the lowest for employer withholding taxes (WHT). However, this is expected, as employers are responsible for forwarding those taxes to the administration on behalf of their employees and have no right over the amounts.

**Table 7.2. Evolution of average ratio of year-end arrears to net revenue collected by tax type between 2018 and 2021**

Tax type	2018	2019	2020	2021
CIT arrears as percentage of CIT collected (39 jurisdictions)	24.0	26.8	30.5	24.3
PIT arrears as percentage of PIT collected (42 jurisdictions)	16.2	14.2	15.5	15.0
Employer WHT arrears as percentage of PIT collected (34 jurisdictions)	7.2	6.5	7.2	6.9
VAT arrears as percentage of VAT collected (39 jurisdictions)	23.8	23.5	30.2	25.1

Note: The table shows the average ratios for jurisdictions that were able to provide the information for the years 2018 to 2021. The number of jurisdictions for which data was available is shown in parentheses. Data for Bulgaria was excluded from the calculation of the average for the total year-end arrears as a percentage of net revenue collected as its data for the three years was not comparable (see Table A.55). Further, because they would distort the averages, data for Brazil and Greece was excluded in the calculation of the average for CIT and data for Malta was excluded in the calculation of the average for VAT.

Source: Tables D.36 and D.37.

## Preventive approaches

The range of actions undertaken by tax administrations to prevent debt from arising and to collect outstanding arrears continues to evolve. Box 7.2. illustrates the approaches taken by some administrations. Advances in predictive modelling and experimental techniques as reported in the OECD report *Advanced Analytics for Better Tax Administration* (OECD, 2016<sup>[5]</sup>) and in the compendium of successful tax debt management practices contained in the OECD report *Successful Tax Debt Management: Measuring Maturity and Supporting Change* (OECD, 2019<sup>[3]</sup>) are helping many administrations better match interventions with taxpayer specific risk. The approaches used fall into one of the following categories:

- Predictive analytics, which tries to understand the likelihood of certain outcomes and, as regards debt collection, includes modelling the risk that an individual or company will fail to pay as well as models that attempt to assess the likelihood of insolvency or other payment problems.
- Prescriptive analytics, which is about predicting the likely impact of actions on taxpayer behaviour, so that tax administrations can select the right course of action for any chosen taxpayer or group of taxpayers. (OECD, 2016<sup>[5]</sup>)

Many administrations are blending both practices and have trialled a variety of approaches aimed at changing “taxpayer behaviour.” As pointed out in Chapter 6, three-quarters of administrations are using behavioural insight methodologies or techniques. These practices have the potential to transform the

approach to tax debt as administrations move away from the 'one-size-fits-all' approaches (where it is cost-effective to do so) and instead try to identify:

- Which cases should be subject to an intervention;
- When to intervene (for example, even before a return or payment might be due); and
- Which type of action would achieve the best cost-benefit outcome.

### Box 7.2. Examples – targeting interventions

#### Australia – Director penalty awareness letters

The most significant impact of COVID-19 on the ATO has been the dramatic increase in unpaid tax debts. As Australian states and territories implemented their roadmaps out of lockdowns so too did the ATO, who remained committed to engaging with company representatives about unpaid tax debt by offering tailored support and assistance rather than enforcement. Where taxpayers didn't engage, the ATO recommenced firmer recovery actions.

Traditionally, the ATO escalates the recovery through a firm action warning letter, a Director Penalty Notice (DPN), which encourages payment and warns company representatives of possible recovery actions. However, the ATO realised that individual directors may not be aware of the debt or their personal liability to the debt until a DPN is issued. Therefore, before considering issuing a DPN, the ATO implemented an awareness strategy to individually inform the director of:

- The company's outstanding debt;
- Their personal liability to unpaid debts under the director penalty regime;
- A director's obligation to make sure the company pays;
- Pathways for them to get the company to re-engage; and
- That the ATO may issue a DPN directly to each director liable if the company does not act.

To date, approximately 70 000 letters have been issued to directors, and as a result with significant amounts of debt have been paid in full, and even more brought under management through payment plans. The outcomes of this campaign have been comparable with activities derived from escalated and firmer action campaigns, yet in this instance have only required the investment of light touch engagements.

#### Latvia – Combating illegal phoenixing

When an old entity is transferred to a new one, the State Revenue Service (SRS) still has the right to collect from unpaid tax owed by the old entity from the new one, so the SRS must evaluate and check if in fact a transfer has taken place.

The transfer of an entity is evidenced by various facts and circumstances that are evaluated against compliance with general criteria decided in the various legal cases. Depending on the outcome, a warning is sent to the successor entity with a deadline for payment of overdue taxes or a request for submission of evidence that proves that it is not a transfer. SRS also notes that it can offer support in the taxpayer's efforts for voluntary compliance, giving the successor company opportunity to participate in resolution.

If overdue taxes are not paid or an agreement on voluntary fulfilment of obligations is not concluded and the taxpayer does not refute the facts established by SRS, the SRS takes a decision on collection of overdue tax payments that comes into force immediately.

Sources: Australia (2023) and Latvia (2023).

## References

- CIAT/IOTA/OECD (2020), "Tax administration responses to COVID-19: Measures taken to support taxpayers", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/adc84188-en>. [4]
- OECD (2019), *Successful Tax Debt Management: Measuring Maturity and Supporting Change*, OECD, Paris, <http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/successful-tax-debt-management-measuring-maturity-and-supporting-change.htm> (accessed on 22 May 2023). [3]
- OECD (2019), *Tax Administration 2019: Comparative Information on OECD and other Advanced and Emerging Economies*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/74d162b6-en>. [1]
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- OECD (2014), *Working Smarter in Tax Debt Management*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264223257-en>. [2]

# 8

## Disputes

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Dispute prevention and resolution are essential to help preserve trust in the tax systems. This chapter explores the strategies put in place by tax administrations to resolve and prevent disputes fairly and efficiently.

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## Introduction

Taxpayer rights and obligations are frequently set out in law or taxpayer charters. Table 8.1. sets out some of the most commonly reported rights and obligations. Underpinning these rights and obligations is effective access to processes that allow taxpayers to challenge assessments and decisions. This safeguards taxpayer rights and ensures that appropriate checks and balances exist on the exercising of tax powers by administrations. At the same time, tax administrations and taxpayers should also strive to work together to prevent disputes from arising in the first place, thus reducing burdens and uncertainty for both parties.

**Table 8.1. 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	

Source: OECD (2019), *Tax Administration 2019: Comparative Information on OECD and other Advanced and Emerging Economies*, <https://doi.org/10.1787/74d162b6-en>.

This chapter examines the dispute resolution and review strategies in the jurisdictions covered by this report, as well as their performance in this area.

## Dispute resolution review mechanisms

All 58 jurisdictions covered in this report provide taxpayers with the right to challenge assessments. Almost all administrations 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, which can help improve legal certainty for taxpayers while avoiding potentially lengthy and costly legal proceedings. For those administrations that offer both review mechanisms, approximately 80% require taxpayers to seek an internal review before their case can be reviewed by an external body. (See Figure 8.1.)

### Box 8.1. Resolving international tax disputes: Mutual agreement procedures

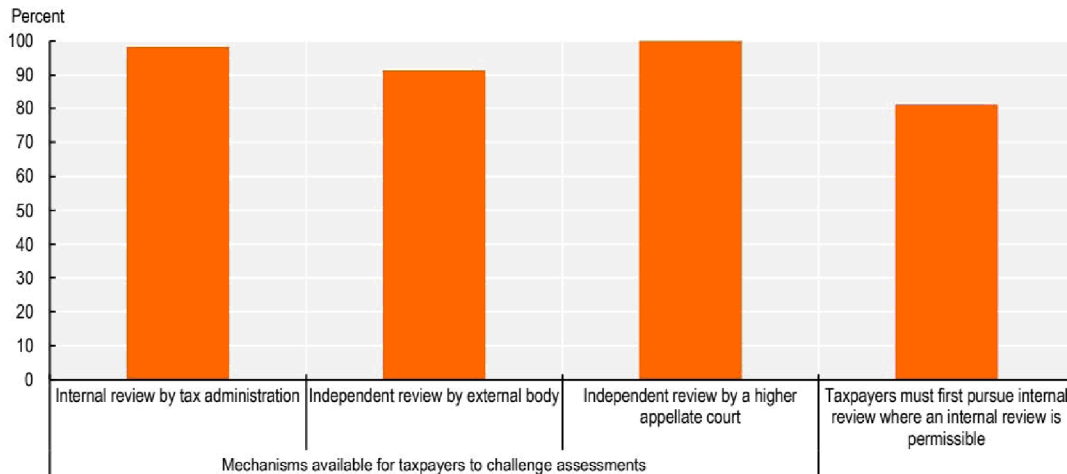
Double taxation of the same transaction or income can have significant economic impacts. Tax treaties, also known as double taxation agreements, usually aim to remove double taxation by setting out mutually agreed rules on the allocation of taxing rights for taxpayers resident in the signatory jurisdictions. They can also provide mechanisms to help prevent tax non-compliance.

Given the complexity of these situations, the parties may disagree on the application or interpretation of those rules. To respond to these situations, the vast majority of tax treaties have a formal process for dispute resolution through a mutual agreement procedure (MAP). Such a procedure is set out in Article 25 of the OECD Model Tax Convention, which is used by most jurisdictions as the framework for their tax treaties. MAP is critical component in ensuring the effective working of tax treaties, and in helping to reduce double taxation.


Source: OECD (2017), "Improving mutual agreement procedures", in *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, [https://doi.org/10.1787/tax\\_admin-2017-18-en](https://doi.org/10.1787/tax_admin-2017-18-en).

**Figure 8.1. Dispute resolution: Available review mechanisms, 2021**

Percent of administrations



Source: Table A.70.

StatLink  <https://stat.link/4xt5de>**Performance in dispute resolution**

While tax administrations cannot generally control the timing of judicial processes, many of them are working on improving dispute resolution processes to make them quicker. These might include mediation or other non-judicial routes. The examples included in Box 8.2. illustrate how technological advances offer new possibilities for tax administrations to improve the efficiency of dispute resolution.

**Box 8.2. Examples – Improving the efficiency of dispute resolution****France – Digital transformation of the legal function**

For the legal functions at the French tax administration (DGFIP), both opportunities and challenges are expected in the years to come. These include:

- Responding to increasing activity flows despite a likely decrease in headcount;
- Compensating for the loss of internal knowledge due to retirements;
- Harmonising processing practices;
- Improving the search for information in order to refocus staff on higher added value analytical work;
- Better sharing DGFIP positions with external stakeholders and taxpayers; and
- Remaining competitive in the technological race with law firms and other players.

To address these, the DGFIP has embarked on a long-term project over the 2023-2030 period, to make the most of the possibilities offered by digitalisation. The project will follow a ‘modular’ approach in order to mitigate the technological, budgetary and operational strains that such a transformation entails:

- A single entry point will be established for all requests, allowing (i) taxpayers to get real-time information regarding the processing of their requests and (ii) internal monitoring and collaborative work using a new software suite.
- A unified document database will be created, gathering all positions taken by the DGFIP, whether in response to requests for rescripts or contentious claims. Expert systems will then be connected to this database.
- Artificial Intelligence will be used to make the most of the unified document base and the flow of information. Tools are envisaged that provide legal staff with proposed responses to simple and recurrent requests, to detect new trends earlier, or even to predict future legal developments.

### **Georgia – Unified database**

The Unified Methodological Base is an online data search platform, which is accessible to employees of the Georgia Revenue Service, and in part to taxpayers. A wide variety of information is available on the database including:

- Legislative acts including international agreements, orders of the Minister of Finance and Director General of the revenue service, government resolutions, etc.;
- Internal regulations and methodological instructions, preliminary decisions, procedural manuals, situational manuals, standard operating procedures, service standards, etc.;
- Guidance on specific topics; and
- Information on hot topics.

The database is helping meet a number of important goals, including:

- Identifying problem areas in the application of tax legislation, and targeting them for further action;
- Reducing complaints and disputes as the working practices are clearer and uniform; and
- Increased predictability of the decisions of the dispute review bodies as information on previous decisions is available.

### **Italy – Business intelligence portal**

Business Intelligence is a web portal that allows the monitoring of various activities of the Italian Revenue Agency, including, for example, those relating to tax litigation, rulings, audit activities and assistance to taxpayers. As regards tax disputes, the portal allows access to reports and applications designed to provide information of a quantitative and qualitative nature, related to the progress of dispute resolution.

In the area dedicated to tax litigation there are different functions available including:

- Analysis, for example on the number of appeals or hearings in the Courts of Fiscal Justice;
- Access to reports of data related to budget objectives;
- Access to registers of appeals which allows accessing data on the compliance with the deadlines for sending requests for appeal, as required by the memorandum of understanding with Legal Council of State;
- A research function for disputes which gives the possibility to follow the development of a selected tax dispute case, and to see the latest counter-arguments lodged at the Court of Fiscal Justice; and
- Access to predefined analysis which contains data on the progress and results of specific operational processes, and each local office may consult the data within its competence.

Sources: France (2023), Georgia (2023) and Italy (2023).

Making effective adjustments to dispute resolution processes requires sound reporting and monitoring mechanisms, and many administrations are active in improving the level of management information available. As a result, this report contains performance information from approximately 90% of administrations.

Tables 8.2. and 8.3. compare the change between 2018 and 2021 in the number of review cases initiated and on hand at fiscal year-end, for both internal and external reviews. Between 2019 and 2020, the majority of administrations reported a reduction in the number of cases initiated and on hand at fiscal year-end. In relation to cases under external review, this result can also be observed for 2021. However, in relation to the number of cases under internal review, the majority of administrations reported increasing numbers in 2021.

### Table 8.2. Dispute resolution: Change in number of cases initiated during the year

Percent of administrations that reported an increase or decrease in the number of cases initiated

Movement	Tax cases initiated under internal review procedure			Tax cases initiated under independent review by external bodies		
	Change between			Change between		
	2018 and 2019	2019 and 2020	2020 and 2021	2018 and 2019	2019 and 2020	2020 and 2021
Increase	50	38	58	44	27	44
Decrease	50	62	42	56	73	56

Sources: Tables A.71. and A.72.

### Table 8.3. Dispute resolution: Change in number of cases on hand at fiscal year-end

Percent of administrations that reported an increase or decrease in the number of cases on hand

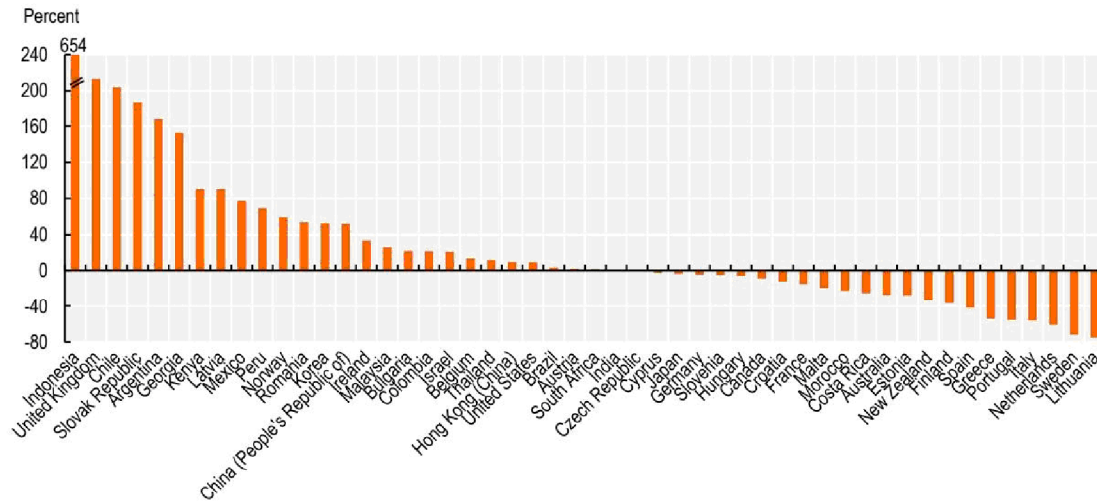
Movement	Tax cases on hand under internal review procedure			Tax cases on hand under independent review by external bodies		
	Change between			Change between		
	2018 and 2019	2019 and 2020	2020 and 2021	2018 and 2019	2019 and 2020	2020 and 2021
Increase	63	46	55	50	33	38
Decrease	37	54	45	50	67	62

Sources: Tables A.71. and A.72.

Figures 8.2. and 8.3. take a more detailed look at the jurisdiction level data and show the change between 2020 and 2021 in the number of review cases on hand at fiscal year-end, for both internal and external reviews. What is interesting to note are the significant increases in the number of internal review cases reported by a few jurisdictions.

At the same time, it should be pointed out that the volume of cases per jurisdiction varies significantly and where the number of cases is very low there can be significant fluctuations between years. This becomes more evident when looking at Figure 8.4., which highlights the wide differences between jurisdictions in the use of internal review procedures. Looking at Table 8.4., which shows the evolution of the average number of internal review cases initiated, it can be observed that the average has been stable between 8 and 9 internal review cases initiated per 1 000 active PIT and CIT taxpayers between 2018 and 2021.

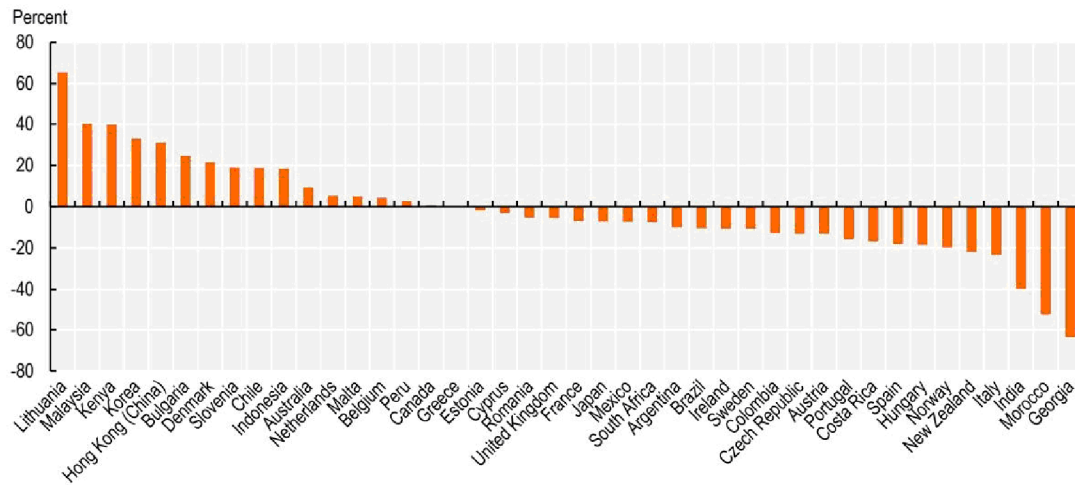
**Figure 8.2. Internal review procedures: Change between 2020 and 2021 in the number of cases at fiscal year-end**



Source: Table A.71.

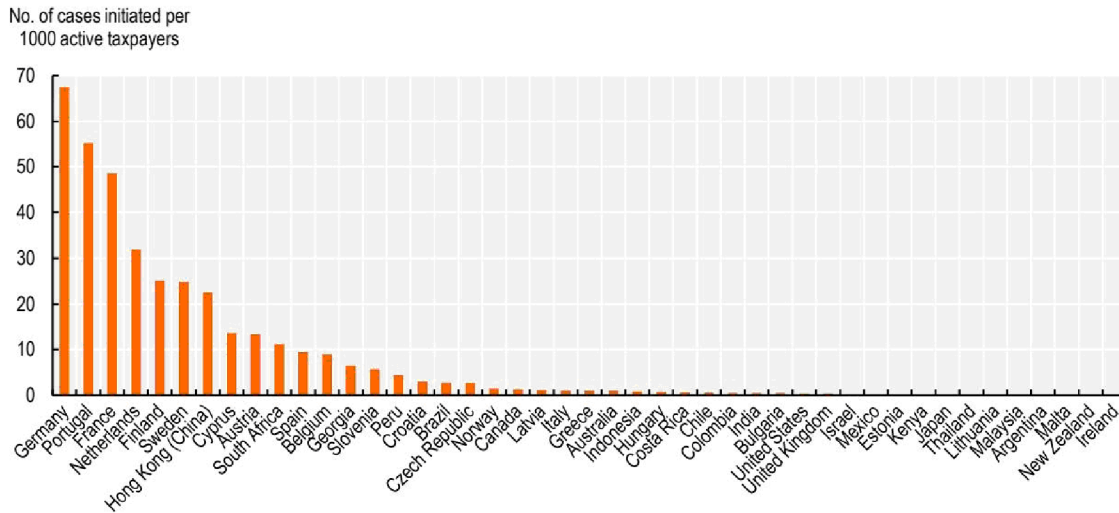
StatLink <https://stat.link/treh4d>

**Figure 8.3. Independent review by external bodies: Change between 2020 and 2021 in the number of cases at fiscal year-end**



Source: Table A.72.

StatLink <https://stat.link/umoeaz>

**Figure 8.4. Number of internal review cases initiated per 1 000 active PIT and CIT taxpayers, 2021**

Source: Table D.42.

StatLink  <https://stat.link/df3qt6>**Table 8.4. Evolution of the average number of internal review cases initiated per 1 000 active PIT and CIT taxpayers between 2018 and 2021**

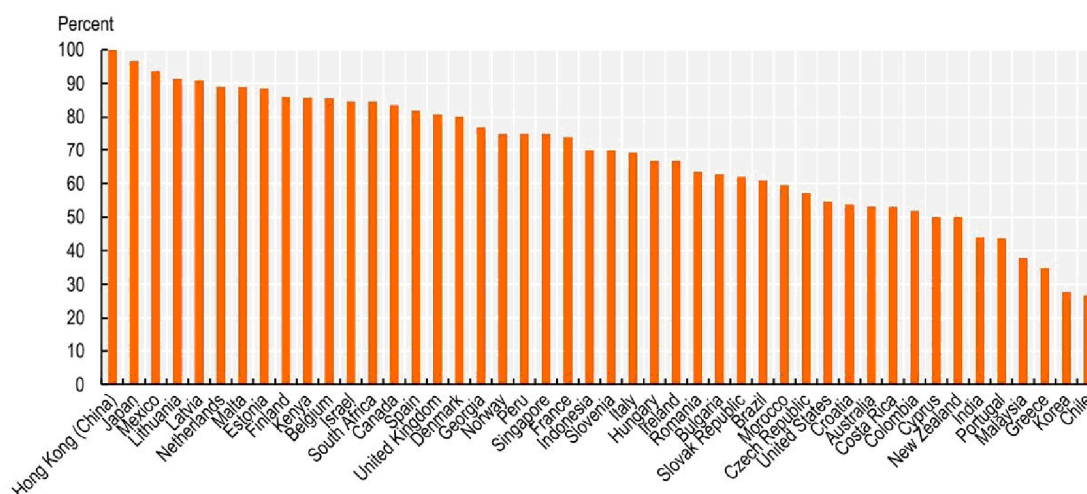
	2018	2019	2020	2021
Average number of internal review cases initiated per 1 000 active PIT and CIT taxpayers (40 jurisdictions)	8.1	8.5	8.0	9.0

Note: The table shows the averages for those jurisdictions that were able to provide the information for the years 2018 to 2021. The number of jurisdictions for which data was available is shown in parenthesis.

Source: Table D.42.

Different interpretations of tax law by taxpayers and the tax administration are a normal part of tax administration, and it is not uncommon for these differences to become subject to litigation, once the internal and external review procedures have been exhausted. Whilst tax administrations report that most disputes are resolved without the need for litigation, Figure 8.5. reports the performance of administrations for cases decided upon by the courts. It shows significant differences in the success rate of administrations, although for some jurisdictions the number of cases decided is very low, meaning results can fluctuate significantly between years.

Figure 8.5. Percentage of cases resolved in favour of the administration, 2021



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 Colombia, France and Korea please see the notes in Table A.73.

Source: Table D.42.

StatLink  <https://stat.link/rukabg>

## Dispute prevention

As disputes can be resource intensive processes, preventing them is the most effective strategy, and a key element in the dispute prevention framework is the provision of guidance and advice to taxpayers. Tax administrations often do this as part of their wider service strategy. This can include putting information and interactive tools on their website, publishing guidelines and taxpayer information briefs, and carrying out educational and business support initiatives. In addition, many administrations offer specific dispute prevention mechanisms and some of those approaches are described in this section.

### Rulings

As shown in Table A.120 of the 2019 edition of this series (OECD, 2019<sup>[1]</sup>), as part of tax administrations' commitment to give taxpayers certainty of treatment, it is now common practice for administrations to set out how they will interpret the laws they administer, and how it will interpret the tax law in particular situations, through rulings:

- A **public ruling** is a published statement of how an administration will interpret provisions of the tax law in particular situations. They are generally published to clarify application of the law, especially where a large number of taxpayers may be impacted by particular provisions and/or where a provision has caused confusion or uncertainty. Typically, a public ruling is binding on the tax administration if the ruling applies to the taxpayer and the taxpayer relies upon it.
- A **private ruling** relates to a specific request from a taxpayer (or their tax representative) seeking greater certainty as to how the law would be applied by the tax administration in relation to a proposed or completed transaction(s). The objective of private rulings is to provide additional support and certainty to taxpayers on the tax consequences of more complex transactions.

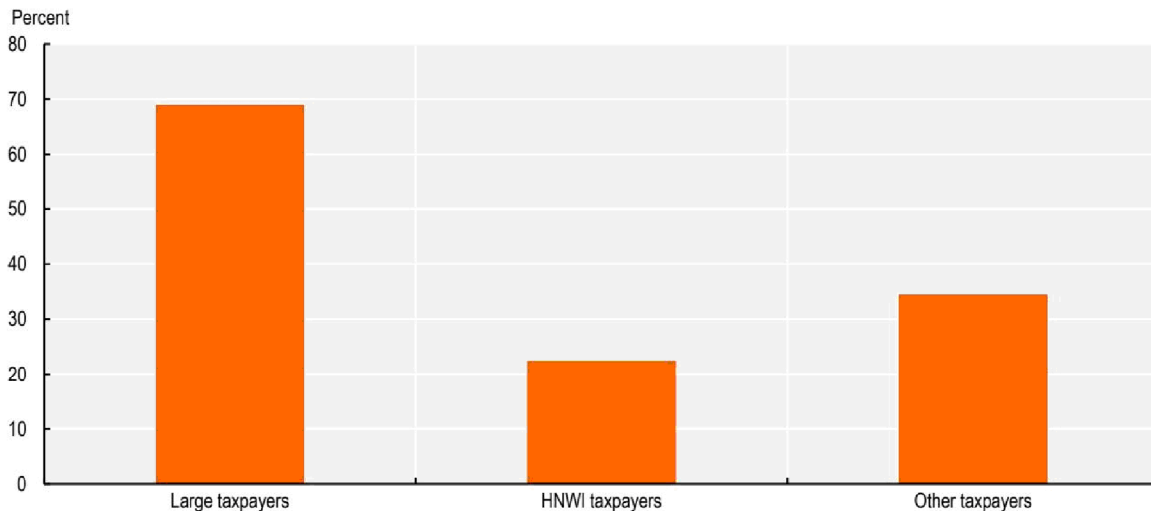
### Co-operative compliance programmes

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. These programmes often involve a more transparent relationship between tax administrations and taxpayers, and can involve 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<sup>[2]</sup>).


As the operation of a co-operative compliance programme is resource intensive due to the high level of engagement between tax administration officials and taxpayers, traditionally those programmes were reserved for large companies. However, technological advances in risk assessment processes have led to a number of administrations reporting the application of this concept to other taxpayer groups (see Figure 8.6.).

**Figure 8.6. Existence of co-operative compliance approaches for different taxpayer segments, 2021**

Percent of administrations that have such approaches



Source: Table A.90.

StatLink  <https://stat.link/21mkb>

### International Compliance Assurance Programme

The International Compliance Assurance Programme (ICAP) is a voluntary programme for a multilateral co-operative risk assessment and assurance process. It is designed to provide multinational enterprise groups (MNE groups) with increased tax certainty with respect to certain of their activities and transactions as long as they are willing to engage actively, openly and in a fully transparent manner. ICAP does not provide an MNE group with the legal certainty that may be achieved, for example, through an advance pricing arrangement (APA). However, it does give assurance when tax administrations participating in an MNE group's risk assessment consider covered risks to be low risk.<sup>1</sup> (OECD, 2021<sup>[3]</sup>)



### Joint audits

Another tool that can assist in preventing disputes is a joint audit where officials from two or more administrations join to form a single audit team which will examine issues or transactions of taxpayer(s) with cross-border business activities and in which the jurisdictions have a common or complementary interest. By collaborating it may be possible for the participating tax administrations to detect and address differences or potential disputes at an early stage. (OECD, 2019<sup>[4]</sup>)

### References

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### Note

<sup>1</sup> See <https://www.oecd.org/tax/forum-on-tax-administration/international-compliance-assurance-programme.htm> for more information (accessed on 22 May 2023).

# 9

## Budget and workforce

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This chapter looks at the resources devoted to tax administrations and provides information on their workforce. It sets out how administrations are responding to new challenges and maintain their capability while managing a workforce that in many cases is reducing in size despite added responsibilities and on average is getting older. It also explores how technology is helping tax administrations empower their workforce to deliver better solutions for taxpayers as well as provide more flexibility for the administration and its employees.

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## Introduction

Central to a tax administration meeting its role in collecting revenue and providing services to citizens and businesses, is sufficient financial resources and a skilled workforce that can deliver quality outputs efficiently and effectively. This chapter examines the financial resources available to tax administrations, and how they are spent. It also provides information on tax administrations' workforce, and how working practices are changing.

## Budget and information and communication technology

### *Operating expenditures*

The overall level of resources devoted to tax administration is an important and topical issue for most governments, external stakeholders, 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.

When looking at the budget figures, close to 80 percent of tax administrations report an increase in their operational expenditure between the years 2020 and 2021. This is slightly more administrations reporting an increasing budget than during the previous periods (see Table 9.1.).

However, this data should be treated with caution. While on paper a significant number of administrations saw increases in their budget, this does not take into the account the increases in responsibilities that many administrations are reporting, especially as a result of additional pandemic responsibilities, as well as any inflationary pressures.

**Table 9.1. Changes in operating expenditures, 2018-2021**

Percent of administrations

Change	Between 2018 and 2019	Between 2019 and 2020	Between 2020 and 2021
Increase in operating expenditure	75.5	71.7	77.4
Decrease in operating expenditure	24.5	28.3	22.6

Note: The table is based on the data from 53 jurisdictions that were able to provide the information for the years 2018 to 2021.

Source: Table A.16.

This issue is compounded as a significant part of the budgets is needed for salary costs, accounting for on average 73% of operating budgets annually (see Table D.6.). Any increases in budgets can be rapidly consumed by salary increases, which may be a contractual obligation. This mix of greater responsibility, and pressured budgets, is driving tax administrations to find innovative approaches, often using technology, so they can meet budgetary constraints, continue to deliver efficient services to taxpayers, and focus on the relevant compliance risks.

As tax administrations reflect on the working practices established as part of the pandemic response, the impact of longer-term hybrid or remote working is also being considered. This was explored in more detail in the OECD report *Tax Administration: Towards sustainable remote working in a post COVID-19 environment* (OECD, 2021<sup>[1]</sup>), and the examples in Box 9.1. set out some of the new working practices being adopted after the pandemic.

### Box 9.1. Examples – New working practices

#### Chile – Automatic messaging system of electronic receipts with taxpayers

As a result of the COVID-19 pandemic and the difficulty of on-site tax inspection, the Servicio de Impuestos Internos (SII) needed to find a solution to control the issuance of electronic receipts in near real-time. In this context, a system with the capability to create alerts from the processing electronic receipts, both near real-time and batch, was developed. This system continues to be used post-pandemic.

The model consists of four main components: clustering, definition of alerts, automatic messaging system and data visualisation.

The process starts with the definition of who are the taxpayers that are required to issue electronic receipts. Then, the system clusters some of those taxpayers by business type. Currently, there are ten clusters: liquor store, bakery, restaurant, greengrocers, butcher shop, drugstore, flower shop, jewellers, minimarket, and hardware store.

SII has created a set of alerts based on mathematical algorithms that monitor and detect anomalous patterns in electronic tax documents issuance from these clusters. After identifying the taxpayers obligated to issue electronic receipts, those who meet the conditions to be targeted for a message are identified. Finally, with all the data gathered by the system, a dashboard to visualise the information is created.

See Annex 9.A. for supporting material.

#### Mexico – Supporting the digital workplace

The Mexican Tax Administration Service (SAT) has invested in mobility services to promote remote work, resulting in increased staff productivity and substantial savings for the institution. A key component of this initiative has been the provision of Virtual Private Networks to enable secure remote access to the institutional network. This measure has not only saved staff time but also allowed the institution to reduce its office-related costs.

#### Romania – Webinar for meetings with taxpayers

During the pandemic the Romanian tax administration adopted restrictive measures regarding the access of taxpayers to the tax administration offices. In order to maintain service to taxpayers, the Romanian tax administration implemented a webinar service, which was launched in 2022. The webinars are conducted by regional offices representatives and the webinar details are publicised on the tax administration website, which also handles registration for the webinar.

The webinars are organised both to inform the taxpayers of their fiscal obligations and to answer their questions related to the topic, in order to improve voluntary compliance. The webinars last two hours and taxpayers can ask questions either in writing through the question-and-answer section or verbally using the "raise hand" function.

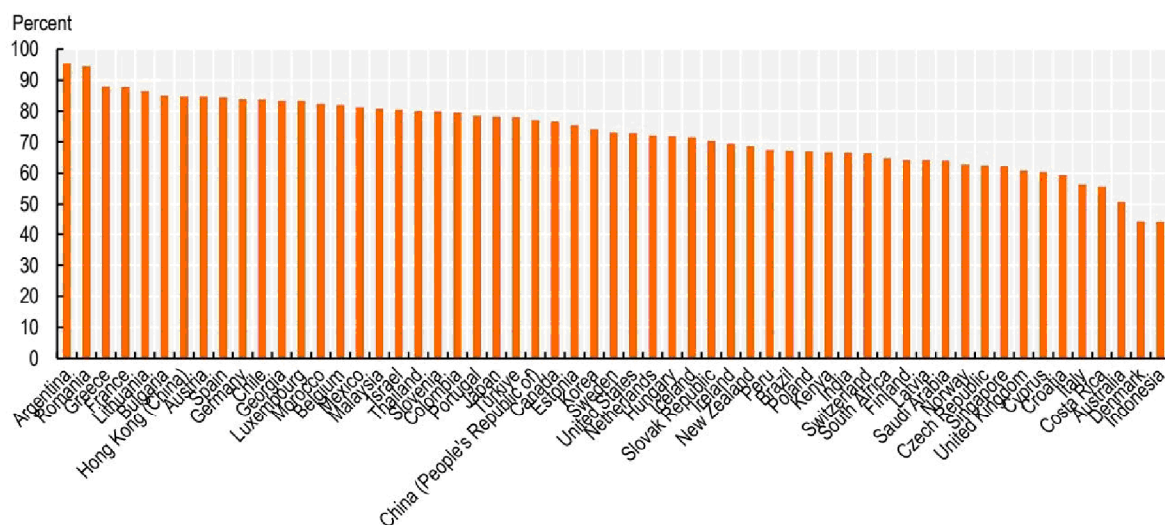
The webinars take place monthly and the platform permits statistical reporting regarding the number of registered people, the number of participants and the number of questions asked through the question-and-answer section.

Sources: Chile (2023), Mexico (2023) and Romania (2023).


### Components of tax administration operating expenditure

As stated earlier, the largest reported component of tax administration operating budgets is staff costs, with salary alone accounting for on average 73% of operating budgets annually, even though there are some differences among jurisdictions (see Figure 9.1.). Another important component is the operating cost for information and communication technology (ICT). On average this accounts for 11% of operating expenditure, with a few jurisdictions reporting ICT expenditure above 20% of their total operating expenditure (see Table D.6.). The averages for both items (salary and ICT) have remained stable over the past years.

**Figure 9.1. Salary cost as a percent of total operating expenditure, 2021**



Source: Table D.6.

StatLink  <https://stat.link/0myi8v>

### Capital expenditure

Capital expenditure makes-up about 4.7% of total expenditure on average but varies significantly between administrations. A few administrations report figures below 1% while others report figures above 10% (see Table A.17).

### Cost of collection

It has become a fairly common practice for tax administrations to compute and publish (for example, 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. 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. Such comparison have to be treated with a high degree of caution, for reasons explained in Box 9.2.

In practice there are a number of factors that may influence the cost/revenue relationship, but which have nothing to do with relative efficiency or effectiveness. Examples of such factors and variables include

macroeconomic changes as well as differences in revenue types administered. These factors are further elaborated in Box 9.2.

Despite those factors, the “cost of collection” ratio is included in this report for two reasons:

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 9.2., they may be able to account for the main factors that can influence the ratio; and
2. The inclusion of the “cost of collection” ratio and the accompanying comments set out in Box 9.2. can serve as a prominent reminder to stakeholders of the difficulties and challenges in using the easily calculated “cost of collection” ratio for international comparison.

Table 9.2. illustrates the change in the “cost of collection” ratios between 2018 and 2021 for the administrations included in this report. It shows that close to eighty percent of the administrations had decreasing ratios between 2020 and 2021, in contrast to the around eighty percent of administrations which had increasing ratios over the period 2019 to 2020. Figure 9.2. looks at the movement in the “cost of collection” ratios between 2020 and 2021 from a jurisdiction-level perspective. However, as mentioned in Box 9.2., the chart and the underlying figures have to be interpreted with great care.

**Table 9.2. Changes in “cost of collection” ratios, 2018-2021**

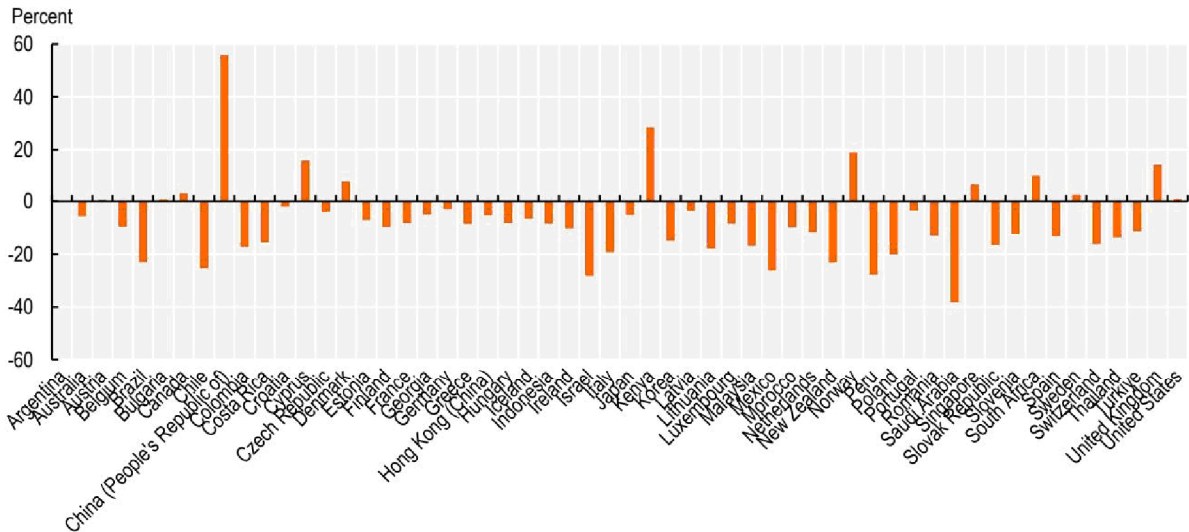
Percent of administrations

Change	Between 2018 and 2019	Between 2019 and 2020	Between 2020 and 2021
Increase in cost of collection	45	82	22
Decrease in cost of collection	55	18	78

Note: The table is based on the data from 55 jurisdictions that were able to provide the information for the years 2018 to 2021.

Source: Table D.6.

**Figure 9.2. Movement in “cost of collection” ratios between 2020 and 2021**



Note: When interpreting this chart the factors mentioned in Box 9.2. should be taken into account. Data for India has been excluded, see note in Table A.16.

Source: Table D.6.

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