

Digitalisation of tax: international perspectives

2019 EDITION



Contents

FOREWORD	1
INTRODUCTION	2
KEY LESSONS	3
STAKEHOLDERS IN THE TAX SYSTEM - WHAT DOES GOOD LOOK LIKE?	4
POLICY GOALS	6
POLICY INSTRUMENTS	7
CHANGE MANAGEMENT STRATEGIES	9
BARRIERS TO ADOPTION	12
TAX MORALE AND INVERTING THE TAX FLOW	14
CASE STUDIES IN DETAIL	16
Australia	16
Brazil	18
Canada	19
China	20
Czechia	22
Estonia	23
Italy	24
Nigeria	26
Russia	27
Singapore	29
United Kingdom	30
United States of America	32

Foreword



Since 2016 and in my current role as ICAEW president, I have had countless discussions with members, tax authorities and other stakeholders around the world about the impact that digitalisation is having on business and on the processes underpinning tax compliance. The UK is far from alone in seeking to leverage modern approaches to improve the effectiveness and efficiency of their tax ecosystem, and this second edition of the report highlights lessons to be learned from 12 such forward-looking tax administrations, bolstering the original seven case studies with five new ones, covering Canada, China, Nigeria, Singapore and the US.

Two years ago, when the first edition of this report was launched, I was vice president of ICAEW. At that time, HMRC's Making Tax Digital project was attracting a great deal of attention and although the original plans were slowed and changed, MTD for VAT is due to go live in April 2019.

MTD builds on HMRC's leading reputation for digital delivery - with over 90% of personal returns now being filed online, data analytics supporting tax enquiries, artificial intelligence improving compliance and a growing dataset delivered through iXBRL tagging of company accounts. The fundamental aim of MTD is to improve the accuracy of records for tax by capturing data closer to real time using digital technology; if that can be done in a way that achieves efficiencies for businesses as well as for HMRC then it will represent a big step forward. The digitalisation of tax administration is a process in which all stakeholders must be fully engaged, to ensure that all parties gain - as all parties can - from the potential digital technology offers.

One of my ambitions as ICAEW president is that we should be - and be seen as - leaders in harnessing the power of digital technology. It is vital for anyone involved in tax to understand how new technology and new techniques are changing the landscape, and to understand the advantages and potential pitfalls of digital transformation.

With thanks to the members and experts who gave their time to be interviewed for this report, I commend the IT and Tax Faculties for their work in producing this excellent guide to one of the most important developments in taxation today; I encourage you to read it and to share your own experiences with ICAEW as the digital revolution continues to impact tax administration.

Paul Aplin OBE FCA
President, ICAEW

Introduction

Welcome to the 2019 edition of *Digitalisation of tax: international perspectives*. Building on the original 2017 edition, this new version presents five additional case studies (bringing the total to 12) and a holistic, high-level review of the drivers for change, obstacles and approaches used by various administrations in modernising and digitalising their tax systems. Informed by the case studies, the report lays out considerations and recommendations that are of relevance to any player in a digitalisation project - from the tax authority planning its own project, to tax professionals and taxpaying individuals and corporates looking to understand and critique their authority's efforts.

Digital transformation in society has had significant effects on the way we interact with one another through the rise of social media and the way we do business in the internet age. The most valuable asset in the modern world is not gold or oil, but data. Many of the largest companies in the world aren't manufacturers, retailers or landlords, but platform providers, data collectors and advertising superpowers. These new business models are also increasingly international and online. In this context, tax rules - often designed with 19th- and 20th-century business models in mind - are increasingly challenged to keep up with the changes. What's more, governments are always under pressure to do more with less, and the ability of technology to increase collections and decrease costs is highly attractive.

Tax digitalisation then, as we define it, is not just converting paper forms into PDFs to upload on a government website. True digitalisation has to be revolutionary, considering not only how taxpayers complete their filings, but what is taxed, and how the authority can leverage powerful data pipelines to complete and audit taxes without a filing being made. Pre-populating returns with information gathered from third parties fundamentally changes the structure of trust and the direction of review, with taxpayers and their advisers now working to review and challenge the work of the authority.

Improvements to the amount and quality of data available should not only be used to better identify non-compliant taxpayers for targeted audits, but also to reduce the rate of false positives, so that compliant taxpayers are less frequently subjected to the cost and inconvenience of an audit. Improving taxpayer services should also extend to easier compliance processes, helpful customised advice and greater real-time transparency over tax affairs.

Of course, ambition and technology alone will not accomplish the goals of digitalisation - there are significant challenges for any tax authority to achieve its goals. The largest is digital exclusion - taxpayers who do not have reliable internet access or are unable to file online. Careful consideration of these taxpayers' needs is essential for the creation of a fair modern tax system.

This paper looks at the whole story of digitalisation, from the goals of taxation right down to the specific tools used to administer it. It considers the needs and desires of different stakeholders in the tax system and how each affects the way that digitalisation will be carried out. It reviews what good looks like for each. The paper also discusses how to transition from current methods to the new digital world.

We review a selection of countries and their tax systems, building a guide to the key goals, methods and influences on the process of digitalisation. From a wide-ranging literature review and interviews with practitioners in several key case study countries, we identify several key patterns.

This report draws heavily on interviews with ICAEW members and other tax specialists in a variety of countries around the world, comparing and contrasting the tax digitalisation journey of each with the unique circumstances of that country. Our interviewees come from business, practice and tax authorities from all corners of the globe and from all sides of the debate on best digital tax practice. The second half of this report contains all the case studies in detail (pp16).

Key lessons

Following a major research exercise, ICAEW releases this second edition as a guide to the most essential trends in digital tax administration. This report represents a holistic paper, reviewing case studies from 12 countries and drawing out the key influencing factors, goals, tools, change strategies and issues along the road to help policymakers create a modern digital tax administration.

This section provides an insight into the main issues that any tax administration should consider when planning their next stage of digitalisation. The full analysis follows in the subsequent chapters, along with the case studies it is derived from.

KEY LESSONS

- Pre-population of returns can provide substantial benefits, but requires extensive collaboration with third parties and will change the nature of the agent/authority/taxpayer relationship.
- Relationships with third-party information suppliers and software vendors are crucial to building a system that is efficient and provides good value to the taxpayer.
- Simplicity drives success: the older and more complex a tax system is, the harder it will be to create an understandable and reliable digital equivalent.
- Digital exclusion must not be ignored or underestimated; those that cannot or will not use digital methods must be properly considered and catered for.
- Proper legal support for digitalisation must be established – for example, by including the legal status of digital records in court, the necessary powers to require digital filing and a legislative basis for digital identity.
- There are key factors which make different tax systems variously harder or easier to digitalise. For example, pre-existing universal filing, or high levels of tax morale, or a pressing need to crack down on the grey economy can all work in favour of digitalisation.

Stakeholders in the tax system – what does good look like?

It is important to recognise that there are different stakeholders with different expectations of the tax system. While not all are completely self-interested, the different economic pressures on the different groups will underlie many of the issues that are considered in the following sections.

INDIVIDUAL TAXPAYERS

Individual taxpayers usually view the process of tax filing as an unnecessary and unpleasant chore. This is complicated by a seasonal rush near deadlines, which inevitably strains support services and leads to frustration and poor service. Individuals may be motivated only to pay the minimum amount of tax they can within the law, but they will also want to have a simple and understandable journey of interaction with the tax system.

CORPORATIONS

In many respects, corporations will have similar goals to individual taxpayers – reduction of their direct tax bill and their compliance costs associated with the process. However, with generally more developed record-keeping and other statutory requirements beyond those of individuals, corporations do have some specific considerations.

Corporation tax is largely digitalised already in many jurisdictions. Reporting schema such as XBRL are often used to encode company information in machine-reviewable format. While many companies dislike the additional costs of this work, the accounting software market has reacted well to it, providing more tagging-ready solutions. So transition may be easier for companies generally than for individual taxpayers.

Where tax authorities are looking to create pre-populated returns for individual taxpayers, companies may also be affected. Ultimately, if individuals are not providing the primary source information to the tax authority, then the primary information must come from organisations instead. Revenue information from employers, banks, and pension administrators will be combined with deductions information from mortgage providers, unions and elsewhere. While in theory these arrangements could be onerous, many tax administrations already require such information to be reported to aid their review process. This can lay additional compliance costs upon businesses.

TAX AGENTS

Tax agents in theory have less compliance work coming in under digitalisation. Pre-populated returns mean that many with simpler tax affairs no longer feel they need any assistance to meet their compliance restrictions. However, the likely effect is that – like in other industries where automation has increased – the tax advisers' work moves up the value chain, away from compliance work and towards advisory work. Tax professionals will be adversely affected by digitalisation only if they don't innovate and move their work to burgeoning areas. Tax specialists will move more into auditing of pre-filled returns and assisting information providers with their increased burden of reporting. The types of tax advice they offer will also change, with a greater demand for compliance process advisory work, as well as helping clients with business models to suit the ever-more-digital economy.

SOFTWARE VENDORS

Many digitalisation efforts will require that taxpayers submit information in a prescribed data format. To meet these needs, non-technical taxpayers – both individuals and small organisations – are likely to rely on software to convert their inputs. While the tax authority may provide software or a portal to aid with this, in many cases third-party software will be needed. This might be standalone software, plugins or functionality built into existing accounting software. Digitalisation is a new source of potential revenue for the vendors, and their place in the ecosystem as supporters of taxpayers has to be balanced against their profit motivations.

GOVERNMENT

Government is the most complex of the stakeholders in taxation. It will not only have its own agenda (which will change as the tide of politics changes), but will also need to serve the needs of other stakeholder groups. A full discussion of tax policy goals, including how these goals are affected by the introduction of modern digital technology, follows in the next chapter.

Policy goals

Taxes serve many purposes for a government. While certainly the main aim of taxation is to collect the resources the government needs in order to enact its policies, the forms and methods of taxation are in fact policies in and of themselves. For example, by determining what transactions are and are not taxable, the government can influence public behaviour.

The simplest taxation policy goal is to collect revenue efficiently – that is, to collect the maximum amount of revenue with minimum cost to the state. Opponents of digitalisation usually paint this as the only goal of tax systems, in some cases warning that pre-population will allow the authority to choose its own cut of taxpayers' income. However, this is an oversimplification. Maximising the collection of revenue beyond what the law allows for is politically very damaging. While lowering the cost of collection is certainly a goal for the state, this cannot be counted as a success if it merely pushes the costs on to the taxpayers. Not only is this damaging to the state's reputation, but more generally the process of complying with tax collection legislation imposes a cost on the economy, and the more inefficient this process is run, the greater is the overall cost to the taxpayer.

Digital methods are known to be substantially cheaper for governments to operate than the various analogue or partially-analogue methods: one Australian estimate showed that for every Australian dollar spent on digital service provision, the same service would cost AUD16 to process over the phone, AUD32 to deal with by post and AUD42 in person. On the other side of the efficiency equation, digitalisation can aid in reducing tax avoidance and evasion, by providing additional tools for analysing tax data and catching omissions.

Taxation is often used by government as a way of influencing public behaviour. For example, so-called 'sin taxes' are levied on goods which have a larger societal cost, such as alcohol or tobacco, in order to reduce demand for these goods. Similarly, many governments provide subsidies or lower taxes for environmentally-friendly expenditure, in order to encourage better ecological activity. Digitalisation in the wider economy could open the door to brand-new areas of social and economic activity for the government to try to influence via tax policy.

Taxes may also be used alongside other national statistics measuring channels to gather information about the state's citizens, companies, and economy. This information can be used to help plan future spending and policy. Digitalisation has a large potential to aid in this area, by increasing the volume and structure of the information that government receives, while also providing more powerful tools for analysing the resulting information.

CASE STUDY EXAMPLE: BRAZIL AND E-INVOICING

Brazil suffers from a high level of fraud and corruption according to the Transparency International index 2017 (a score of 37, with 0 being highly corrupt and 100 perfectly clean) placing 96th out of 168. Previously, one particular area of tax evasion was in VAT, where a variety of issues existed, from simple undeclared sales to complex carousel fraud.

In response, Brazil enacted an extensive system of mandatory e-invoicing. The Nota Fiscal eletrônica (NF-e) form must be created whenever a taxable act takes place, and the process of issuing this form automatically passes a copy to the tax authority for approval. In this way, in theory, all sales and purchases are in real time submitted to the authority, allowing for robust analysis of the Brazilian economy and the detection of sales tax fraud.

Brazil also requires all companies to submit transactional accounting information in a prescribed electronic format to the authority, again providing the Brazilian government extensive insight into companies' activities. Another innovation used in some Brazilian states is a small VAT rebate issued to individual customers when the purchase makes its way into the state's tax system. Thereby, individuals are incentivised to declare unreported transactions, helping to reduce the size of the grey economy – that is, legal but untaxed trade.

Policy instruments

Policy instruments are the specific tools that a government uses to enact its policy goals.

Nodality	Collection and dissemination of information, eg, public awareness campaigns, national statistics.
Authority	Setting of rules, laws, permits, and taxes, eg, law-making, issuing of driving licences.
Treasure	Provision of money, eg, grants and funding.
Organisation	Direct provision of service, e.g., healthcare, police, military.

Hood, C. (2007), Intellectual Obsolescence and Intellectual Makeovers: Reflections on the Tools of Government after Two Decades, *Governance: An International Journal of Policy, Administration, and Institutions*, 20(1).

Taxation policy is enacted primarily through authority, but tax breaks and incentives can also fall into the treasure function of government. Digitalisation is not just government operations plus websites, but reflects transformation of what tools are being used to enact the government's policy goals. There may even be completely new instruments that can be introduced as a result of new technologies.

What follows is an overview of the most common digital tax policy instruments.

PRE-POPULATION

Beginning in Denmark in 1988, one of the major gains of centralised and/or interconnected government databases is pre-filling of many forms. For example, if an individual taxpayer has been identified through a secure sign-on process, their income tax return could be automatically populated with their employment income and payroll taxes paid (from the payroll tax system), their interest received (from connection to a bank reporting database), their state pension contributions (from the pensions administration database), and so on. This allows the taxpayer to save time, needing only to confirm the existing information as accurate before submission. This also results in a saving in review costs for the tax authority.

Naturally, these benefits go beyond the tax system - for example, a citizen looking to renew and pay their car tax would have their address, vehicle registration, and other details automatically pulled through. After logging in, application and payment could be made instantaneously.

However, all this only works if services across government are harmonised in terms of the information that they keep and how service users are identified. Harmonising legacy systems is a substantial element of the cost and difficulty of implementing such systems, with many countries having fractured and incomplete systems spread across different services and geographical areas. Crucially, without a single universal ID system for citizens, tying together all the information held on one person is almost impossible.

The OECD highlights four key ingredients that are necessary for successful pre-population of citizens' tax returns: comprehensive third-party reporting systems; high-integrity taxpayer identifiers; effective use of technology; and a compatible legislative framework that, for example, does not include high levels of deductions that are not visible during the pre-population process.

CASE STUDY EXAMPLE: ESTONIA

The average Estonian tax return takes five minutes to complete, due to the pre-filled information provided by the government. The single shared platform, X-Road, unites effectively all government services and links all aspects of citizens' digital identity together from a single secure identity logon.

PORTALS

Filing of tax information through an online form or connection, especially for corporation tax, is another very common approach. Various websites, data connections, online forms, and so on are grouped together for the purposes of this paper under the generic heading of 'portals'.

The simplest implementations of tax portals are just digitising existing tax processes, for example hosting a PDF version of an existing paper tax form on a government website. This does very little to leverage the benefits of modern technology. More fully developed portals make use of live connections to data, including collecting tax data from corporate taxpayers in a structured format such as XBRL.

Tax portals also can be run as a service for citizens, collecting all the information on the citizen's tax affairs, benefits and other government information into one place. The government can also automate communication and reminders for the citizen through the same interface.

AUTOMATION AND DATA ANALYTICS

More powerful computers and the ever-growing amount of information gleaned in the era of 'big data' allow for greater parts of the tax review to be automated, for example by comparing different sources of data, or comparing input and output VAT across different taxpayers. External data, such as data derived from open data sources, social media, or banking data can also be brought in to aid the automated review process.

The data collected by tax authorities is not just individual slices for each taxpayer, but instead a series of parts of a larger picture. With proper analysis, the authority could use information from taxpayers to detect non-compliance for third parties such as vendors. The data gathered can be used to gain great insight into the national economy and drive decision-making in other departments beyond merely tax collection.

ELECTRONIC INVOICING

As part of its tax policy, a government may choose to encourage the use of electronic methods for many aspects of the economy. This may not only benefit the tax system, but also provide an incentive to move to more efficient methods for private enterprises. One particular area is e-invoicing. A standard electronic invoice format, for example, can reduce administrative costs for all companies using it. But without government involvement, it is hard to get momentum behind a particular format. Furthermore, finding a single format or even a small number of formats that can fit the needs of businesses of all shapes and sizes is a daunting challenge.

AUTOMATIC PROMPTING

Governments may create automated prompts, which remind customers when they have filing or payment obligations due. These reminders can serve as a way of improving taxpayer satisfaction (helping them avoid an unintentional breach and subsequent penalties), but will also help the authority to improve the rate of compliance.

Change management strategies

When a new digital strategy has been identified, there are multiple methods for implementing it. The ease (or otherwise) of making sweeping shifts to the process of tax administration will depend on many factors. A few of these factors – and approaches – are discussed here.

SHOCK CHANGE

Rarely seen, shock or ‘big bang’ change is a rapid transition from one system to another. This obviously is the most rapid change process, but also causes substantial disruption. If not given sufficient time, many will struggle to efficiently meet the new requirements, and will incur costs as a result. Furthermore, unforeseen problems and unintended consequences will mean that the implementation may go astray, and not have the benefits intended.

PILOT STUDIES

Rather than bringing a system online across the entire tax system at once, pilot studies allow for a proposed system to be tested in one particular circumstance – perhaps a particular geo-region or certain tax – and then evaluated and improved before being rolled out on a larger scale. Specifically, the pilot study will run in parallel to the existing tax system and may be an optional system that taxpayers can participate in. This minimises the impact of any problems in the pilot study, while still generating valuable feedback for the tax authority. Larger companies may be happy to volunteer to participate in such pilot schemes if it will allow them more time to implement changes in their own processes.

ROLLOUTS

When a final system has been decided upon, many administrations roll out changes in a series of phases, steadily retiring the old system as they go. This allows for the change costs to be spread out chronologically and as a result any problems discovered are limited in their impact.

There are a few different ways of sectioning the audience for rollouts.

By size – starting with the largest entities and then working down. This also has the advantage that the larger taxpayers have the resources to cope with rapid change better than the smaller ones.

By sector – starting in a particular industry and then expanding to others. This approach is particularly useful where a specific sector – such as natural resources – is dominant in the national economy.

By geography – rolling out across different states or other sub-national boundaries. Particularly cogent for large countries.

By tax type – taking each tax in turn. When done, it is more common to begin with sales tax, a relatively simple tax.

By mandatory rollout – beginning with a totally optional new system and steadily reducing the optionality until the new system is entirely mandated.

The OECD recommends the use of data to target offerings of new digital services.

CASE STUDY EXAMPLE: RUSSIA

The Russian Federal Tax Service trials all new projects, experimenting with using the proposed system in one region of the country before rolling it out. This has meant fewer difficulties with implementation. The largest companies were happy to volunteer to be testers for new systems, especially where it meant they could get the jump on adapting their own systems to the new regime ahead of it becoming mandatory.

MANDATING

There are different approaches to mandating the use of new methods, and the case studies illustrate such differences. Given that one goal of digitalisation is to reduce reliance on more expensive communication channels and allow new capabilities in review, it is in the interest of the tax authority to maximise the degree of transfer to the new channels. This can be achieved by making their use mandatory, although this approach has some difficulties. Smaller companies and many individuals will not have the necessary tools or know-how to make the shift, and will end up incurring costs either to acquire them, or to hire an agent to do it on their behalf. What's more, some are simply unable to use digital methods, such as those with some specific disabilities, and will require specific exceptions and support.

On the other hand, the UK government believes that around £600m of the £6.5bn tax uncollected due to small business error could be collected with a digital system, but only about 10% of this would come about if companies were transferred only voluntarily to the proposed new systems (Gauke (2016), letter to MPs).

Many tax authorities have avoided making new services mandatory, but incentivised taxpayers to move to new methods, for example by offering prompter payment of rebates for online filing, delaying the filing deadline, only allowing some rebates to be claimed online. This helps to maximise the adoption of new systems without necessitating additional compliance costs. On the other hand, such measures may conflict with a desire to be even-handed with different taxpayers, a goal which is often an explicit pledge in various 'Taxpayers' Charters'.

CASE STUDY EXAMPLE: SINGAPORE

Before September 2018, employees and tax agents responsible for filing on behalf of companies and other organisations used their personal SingPass government ID to access the company's records. This caused some concerns about ease of use and security, and consequently from September 2016 a new CorpPass system was introduced, which from September 2018 became the sole method of accessing services from the Inland Revenue Authority of Singapore.

MINISTERIAL OWNERSHIP

Digitalisation is a large, complex process. Change in the tax system will often be linked to increases in digital administration across government. Many technology approaches, such as pre-population, rely on the ability to share information across different government departments. Hence common standards and approaches, as well as shared platforms, are essential for successful transition. It is important that a clear responsibility for the process of change exists at the ministerial level within the government.

THIRD-PARTY INVOLVEMENT

Many digitalisation projects rely on interaction with the software industry – for example, the software tools the taxpayers will use to comply with the new system will be developed by external software providers. The relationship of the tax authority with these vital suppliers must be nurtured and proper time given for them to work on creating the solutions taxpayers need. There may be some tension – for example, in the US, tax filing companies that currently benefit from the more labour-intensive compliance regime spend substantial sums lobbying against digitalisation efforts. Even when third-party developers are completely on board, there are some thorny issues: for example, if no developer is willing or able to produce free software of sufficient quality, then additional compliance costs will be imposed on the economy.

Pre-population also relies on the government collecting information on taxable events from various third parties, such as payroll reporting from employers. The process through which this information is collected must be laid down before the end goal can be reached.

If new tax tools are not to be made mandatory, then the OECD recommendation is to leverage tax agents to promote them.

TAX SIMPLIFICATION

The simpler the tax rules, the greater the amount that can be automated in the review process. Some countries will take the change in the tax process as an opportunity to review and simplify their tax code. Simplification also decreases the number of elections, unusual items and other elements of tax that are outside the view of pre-population systems, which further increases the latter's usefulness and accuracy.

Simplification is easier to achieve in countries with less legislative history in their tax code - for example, the former Soviet nations started from a clean slate and are not burdened with the long history of rulings and legacy IT systems to maintain.

Barriers to adoption

Depending on the exact changes being made and the strategies being used to bring them about, there are many potential barriers that need to be overcome to create a modern digital tax administration.

DIGITAL EXCLUSION

The largest and most persistent issue in introducing digital methods to tax administration is that of digital exclusion. This covers those users who are either unwilling or unable to make use of digital methods to interact with the government, or who do not have records in the appropriate format for compliance. This may be due to generational differences in uptake of technology, personal beliefs about sharing information with the state, disability, remote location, cost of compliance, or any number of other reasons. Exclusion can be temporary as well as permanent (such as in case of sickness), and can arise suddenly (for example in cases of natural disaster).

Governments can work to educate and provide resources for many affected by digital exclusion, but total compliance is impossible. There must be an avenue for those who cannot comply with digital reporting to avoid penalty; this may be through the maintenance of traditional paper-based filing or via supporting a network of accessible and affordable tax agents that can file on the behalf of taxpayers.

COST AND COMPLEXITY

While the benefits of digitalisation may be clear, in the short term the transition usually increases costs and the gains may take some years to materialise. This kind of spending can be politically difficult to justify. Furthermore, mandatory electronic record-keeping and other required taxpayer activities will pass costs on to taxpayers, which will also attract resistance. In the EU, the adoption of iXBRL as a requirement for listed company accounts led to these kinds of problems. In the UK, for example, the original planned timetable and the extent of tagging had to be relaxed in order to accommodate difficulties with implementation.

On the other hand, long waiting times at tax offices and on the phone can lead to frustration. Expanded services and simplified tax filings are often very appealing prospects and digitalisation may be branded as part of a government's efforts to modernise or to cut down on tax evasion, corruption, and bribery. Ultimately nobody enjoys paying their taxes, but making taxation more efficient, simpler, and easier to carry out can improve the authority's standing.

There are also costs to taxpayers, such as buying new software to comply with new requirements; free software alternatives may be available, but there is no guarantee or their quality may be insufficient.

SECURITY AND PRIVACY

Electronic communications are open to a host of potential abuses. Phishing, man-in-the-middle attacks, identity theft, spearfishing, social engineering, and other forms of cyber security breaches are serious wherever important information is being transmitted. But in tax administration the threat is especially high due to the valuable and sensitive nature of the information in question. Most breaches occur due to human error, so governments must marry an increasing reliance on digital communication with a concerted effort to educate taxpayers about the key risks and safeguards.

Separately from the issue of security, there is a question about personal and corporate privacy. Even without third parties accessing it, governments can theoretically gather a great deal of information on their citizens through what is provided as part of the tax compliance process. Digitalisation greatly increases the ability of governments to analyse and conclude from this information. Trust must be established between the government and its citizens.

LEGACY SYSTEMS

Every country has at least some electronic element to their tax administration now. Digitalisation is not about introducing computer techniques for the first time, but updating and expanding them to take advantage of the capabilities of the modern world. Older systems will contain much vital data and will need to be properly brought forward into the new system. More ambitious digitalisation efforts may require linking together data from a variety of legacy systems, such as the old tax system, pensions administration and healthcare.

FUTURE-PROOFING

Current technology is advancing at an ever-increasing rate. Introducing a system that is reliant on current technologies or web standards, or that relies on fixed current best-practice elements, such as security, will limit the longer-term usefulness of a system. Development should instead be focused on technology-neutral approaches and proofing against possible future changes – whether those be in technological capabilities and standards, in the preferred hardware and software used by taxpayers, or even changes in the tax regime itself.

MISSION CREEP

With large, long-scale projects such as tax digitalisation, it is natural to break the goals down into achievable objectives. However, over time, implementation can start to meet the letter of those objectives without actually proceeding to work on the spirit of the original goals. For example, if a take-up metric is designed as part of the adoption of a new system, then a project might end up lowering the quality of data needed in order to hit this target, while not actually collecting the data that was the impetus behind the introduction of the system in the first place. Regular high-level reviews of a project's goals are necessary to keep the detailed implementation on track.

LIMITATIONS ON THE DIGITALISED TAX SYSTEM

Pre-populated returns are one of the most valuable and commonly implemented tools of digitalisation. However, they are limited in what kinds of information they can include, based on what details the government is typically supplied with. Often, items such as dividends, capital gains, foreign income and rental income are missed out. Many costs, such as allowable third-party disbursements and payments, may not be reportable to the authority and hence won't appear on a pre-populated return either. Any taxable activity that includes some kind of a choice in treatment is naturally not the most compatible with an automated system.

TRUST AND SECURITY

Digitalisation often involves increasing the breadth and scope of government data collection on individuals and companies, and may include asking for real-time data, or that data be formatted in an API or other government-defined format. Naturally some will resist such requests or be concerned about how their data will be stored and used. Building trust between the taxpayer and the tax authority needs to be done on a basis of clear communication and careful building of appropriate security systems for taxpayers' data.

LEGISLATIVE BASIS

Without a proper legal basis for the collection of information, the use of electronic data as evidence, and the requirement for data to be supplied in a given format, taxpayers will lack the certainty they need to plan their compliance activities and may resist or refuse to comply with the authority's requests.

Tax morale and inverting the tax flow

No two countries are the same - and the section containing all of the case studies illustrates that we have considered each country's economy, governance, and culture separately in terms of how they affect the process of digitalisation. However, there are a couple of changes to the digitalisation of tax culture that are universal, and we will discuss these in more detail.

TAX MORALE

Tax morale refers to a country's citizens' general opinion of paying their taxes, and their happiness with the services which they receive from their government in return. There is a correlation between tax morale and tax compliance - those countries where citizens have the most trust in the tax system and the government have the highest rates of compliance and the least tax evasion. Tax morale is affected by the views of the levels of fairness in the tax rules, support for democratic government, and the perceived levels of corruption within the tax administration.

Digitalisation naturally has an effect on tax morale. Generally, automated systems should be seen as fairer and less open to corruption. If well-implemented, the system achieves more transparency and is easier for citizens to use. The increase in tax morale can help drive a rise in compliance - separately from the use of data analysis methods to help catch evasion directly.

INVERTING THE TAX FLOW

However, digitalisation also comes with some changes to the public's trust of the tax system. Under the pre-digitalised model of tax compliance, most administrations worked by taking taxpayers' returns, and using the information they gleaned from third-party sources (such as employers) to review for accuracy. Any suspected errors or omissions were then followed up.

With pre-population, this flow is inverted. The third parties provide the original input information, the tax authority reviews this and prepares the initial return, and the taxpayer audits this against their expectations. This reverse of the flow has some interesting implications for the system.

For starters, they are motivated in different ways. An individual taxpayer might be tempted to leave off some income or exaggerate their deductions: in theory, a tax authority has the opposite incentive. In either case, the third-party information providers' main motivation is to meet their statutory reporting obligations for a minimum cost. It's important to note that there is a tendency to the default - many people would not question a pre-populated return, even if it might in theory be incorrect; this is especially difficult for those without the knowledge of the tax system to be able to understand the return they are given. Pre-population must come alongside clearly articulated and well-advertised explanatory materials, to make sure that taxpayers are properly able to audit their returns.

For each tax non-compliance concept, there is an inverse equivalent under pre-population. Tax evasion by the taxpayer would be reflected in intentional over-claiming by a tax authority - a PR problem even if it is only theoretical and never actually happens. Tax avoidance mirrors a situation where the tax authority defaults to classing taxpayers as taking few or no exemptions in its tax preparations. This also covers cases where, for example, income in a joint account is automatically allocated to the higher-bracket taxpayer. And error is error, no matter who makes it.

It's arguable whether a tax authority would truly be incentivised to over-claim from taxpayers. Certainly opponents of pre-population fear this outcome, arguing that individuals would lose out by letting the taxman choose his own cut of their income. But a well-governed authority should be measured on applying the law as accurately as possible, not simply by how much it collects - see further discussion in the section on policy goals.

A larger concern is missed exemptions and deductions. In particular, many of these are based on information not available to the tax administration, such as private expenditure or particular living circumstances of the taxpayer. So a pre-populated return may miss out on these kinds of deductions, and a trusting taxpayer may in turn pay more than is necessary. Opponents of pre-population paint this effect as a kind of tax increase. Without proper education and guidance, taxpayers may miss out on tax avoidance channels legally available to them.

Case studies in detail

The following case studies have been updated for this edition: Australia, Brazil, Czechia, Estonia, Italy, Russia, and the UK.

This edition also contains new case studies for these countries: Canada, China, Nigeria, Singapore, and the US.



Australia

OVERVIEW

Being geographically isolated and with a shorter history of tax law – federation took place in 1901 – Australia is an unusual case. Tax revenues are the responsibility of the Australian Taxation Office (ATO), which levies an average of 25.6% of GDP as taxes each year. The ATO is also responsible for managing the Higher Education Loan Program, portions of the superannuation system and some other government payments. Australia requires universal filing of returns for all citizens, which has historically supported a healthy high-street tax advisory industry and a higher-than-average engagement with, and knowledge about, tax matters among Australians. In particular, the deductions system for income tax is extensive and several interviewees identified a ‘claim what you can get away with’ culture in respect of deductions.

DIGITALISATION

In 2013, the Australian government began a programme of work, called ‘Digital by default’, to update its workings and systems with the assumption that people’s preferred method of interacting with the government in the future will be digital. There is a Digital Transformation Office within the government that is overseeing this process. The ATO’s own digital strategy publication identifies meeting community expectations and customer service as the primary goal of the process. The same document also recognises a need to create a legislative framework that will support further changes in the future, as technology continues to move forward.

In a short period, the use of electronic forms and communication channels has expanded significantly – including the ATO’s willingness to discuss tax queries with users via email. Pre-populated personal tax returns can now be accessed through a programme downloaded to taxpayers’ personal devices, and completed and filed from there. Pre-population is fast and accurate. However, there are some gaps – the most significant being rental income, as well as proper attribution of foreign income. The ATO is connected with the border control service and can track the movement of expats and non-resident taxpayers if they wish to. Deductions have to be entered manually each year. However, in close partnership with the ATO, the tax filing software available to the market is of a high quality and contains excellent automatic checking and explanatory materials. From July 2018 larger employers must report under Single Touch Payroll, a real-time payroll reporting schema. Single Touch Payroll will expand to all employers in July 2019. The new system means that employees will access their pay summaries through the MyGov portal rather than the employer creating them.

There is a parallel push for online filing for companies, but this is not as advanced and paper filing is still common. However, business software developers are working on increasing integration between their packages and the ATO’s systems. The changes are supported through whole-of-government efforts such as the central MyGov portal, which is used for most government services. Many of these resources are developed in-house by the ATO rather than by third-party suppliers.

Personal tax accounts use two-factor authentication, a username/password as well as a code sent to the taxpayer’s mobile. Logon to corporate tax accounts is done with a tokenised, hardware-dwelling logon

ID called an AUSkey, along with a username and password. This works as two-factor authentication, as only the user's personal computer can be used to log in. Agents can register to act on a client's behalf easily, needing only basic details and a signed consent form. Like its neighbour New Zealand, Australia has significantly adopted voice recognition technology as a means of identifying taxpayers who call the ATO directly. It is also considering adopting a similar model of running trials before implementation for some services. As of 2018, the Australian government is working on a whole-of-government identity system called the Trusted Digital Identity Framework.

With tax agents being common and universal returns required, many are accustomed to using an intermediary for their tax affairs. While services will remain available for the digitally excluded, they are also likely to have an existing tax agent to act through. The ATO's estimate is that 70% of users could transition to online-only services with no support, a further 25% with some support, and 5% would require significant support and/or non-digital alternatives.

CHALLENGES

Some members of the tax profession in Australia feel that the digitalisation programme is explicitly aimed at reducing the size of the tax industry by introducing direct services that effectively operate as superlative competition to the existing offerings. While Chartered Accountants Australia and New Zealand, the local accountancy body, has been involved in consultations and guidance around the ATO's plans, there is still a feeling that the government sees accountants' costs as regulatory costs that drain the overall economy and should be reduced.

Furthermore, the newer tax portals originally did not allow agents to access correspondence sent to their clients, making acting on their behalf much harder. These kinds of issues have led some agents to distrust the system and resist changes. The ATO itself does identify tax professionals as one of the three key stakeholder groups in its own strategy (alongside individual taxpayers and companies); the same document talks about those agents moving higher up the value chain as a result of digitalisation. As of 2018, work is under way on a new agent portal, aiming to address some of the issues with agent access and support.

There is also concern from some libertarian groups about the scope of information about Australians held by the government, and in particular the ATO. Use of big data techniques by the government allows significant insight into citizens' affairs.

Australia's deductions system is extensive and complex. Individuals filing their own returns without experience of this system may miss out on the ability to claim all relevant deductions and end up overpaying. More generally, there are concerns that the complex elements of the Australian tax system will be hidden from those who use the ATO's system for their taxes, but not actually removed from the underlying rules - leading to inefficient use of the options available by under-informed taxpayers.

CONCLUSION

Australia has an ambitious and proactive programme of digitalisation across both its tax services and the whole of government. There are substantial potential benefits to be had, but also some issues that arise from attempting to transition too quickly. For example, rushing into hardware plans or service delivery options without pilot schemes or proper consultation could lead to wasted money and effort.

The use of pre-populated returns in Australia, driven by a demand from universal filing, has been successful. Returns are comprehensive, accurate and timely. While no pre-filled return can ever be fully complete, expanding into more difficult areas and gaining greater coverage of common tax affairs is likely to be the next goal for the programme.

The agent relationship for the ATO is somewhat mixed. Some agents feel they are an afterthought, or that the ATO wishes to push them out of the tax compliance market. However, the ATO frequently

stresses the importance of agents in their communications, and are working with local accounting bodies to help design ways for agents to provide services to and through the ATO. Nonetheless, other countries should consider the current and desired role of tax agents as elements of the tax system, and plan accordingly.

Australia has experimented with some unusual authentication options, such as the AUSKey and voice pattern recognition. These are approaches that have some useful benefits and features and other authorities should consider more inventive approaches to security.



Brazil

OVERVIEW

Brazil has a service-led economy with significant industrial and agribusiness components. After many years of high growth, Brazil has been in a recession since 2014.

Brazil has a leading legislative framework for combating corruption, but is still considered to be among the more corrupt economies in the world. The untaxed grey economy is estimated at 39%.

DIGITALISATION

Since 2002, the Brazilian authorities have been building a regulatory regime that is based on four pillars of modernisation: electronic invoicing, accounting, tax and payroll. The largest change has been the rollout of a mandatory standard electronic format invoice for goods, applicable to all companies, starting in certain sectors and for larger companies and steadily rolling out since 2009. When an invoice is submitted, it is passed to the tax authority first for recording and format approval checks, before then being passed on to the customer. This way the authority gains real-time insight into transactions and greater compliance with VAT reporting.

Transactional accounting and tax data also have to be submitted electronically and according to a prescribed format. To further help reduce the size of the grey economy, many states provide consumers with a small VAT rebate when their purchases are lodged with the tax authority. This motivates consumers to report missing transactions, in effect creating millions of additional part-time tax inspectors.

Around 185,000 federal tax audits were performed in 2015, of which 97% were carried out electronically and remotely. In the 92% of cases where such an audit identified a penalty, this was issued automatically and without a chance for the taxpayer to correct the perceived inconsistency.

CHALLENGES

The implementation of the electronic invoice (the Nota Fiscal eletrônica) was expensive, both for the government and for companies to comply with. Nowadays many off-the-shelf ERP solutions that comply with the NF-e legislation are available, but these took some time and expense to implement - the cost of bringing in a system was estimated by one interviewee as 10-15% of the cost of a full new accounting system.

The Brazilian tax system is among the most complex in the world - with 64 different types of income and corporate taxes, four different VAT taxes, and layers of federal, state and municipal tax all laid atop one another. Brazilian tax compliance is estimated to be the most arduous anywhere in the world - hours to comply are some eight times the world average, although the World Bank and PwC's 'Paying Taxes'

report does show a decrease in the annual time for a medium-sized company to comply from 2,600 hours in 2016 to 1,958 in 2018.

Any attempt at creating a standard system inevitably does not properly account for all users, and designing universal systems is considered challenging to impossible.

CONCLUSION

Brazil has taken a very unusual approach to its tax system, building a large information-gathering system based on electronic invoices and transactional accounting data. This has been possible thanks to a strong political incentive to combat high levels of corruption, bribery and grey economy, but it has been expensive to introduce for all companies, even those that were previously compliant. There are signs that common reporting structures and streamlined invoicing may yet yield benefits for companies, but these have not yet materialised.

Nonetheless, the electronic invoicing regime in Brazil is an example for any other government considering similar measures. While the tax system and complex government of Brazil are substantial challenges, the fact that the system has been built nonetheless shows that even a difficult digitalisation process can be done.



Canada

OVERVIEW

Taxation powers in Canada are divided between the federal government, provincial governments and municipalities. Income and consumption taxes are generally levied at the federal and provincial levels, with municipalities largely funded by property taxes. There is mandatory annual filing for personal income taxes for all citizens. Like many countries with universal filing, there is a healthy marketplace of tax agents and third-party tax software available to support taxpayers. The Canada Revenue Agency (CRA) is the administrator for all federal and most provincial taxes.

Canada has been described as the leading 'cashless' economy in the world, with an average of more than two credit cards per person and 70.7% of personal consumption expenditure being card-based. Canada is a member of a group of digital-focused governments known as the D7, which also includes Estonia and the UK (two of our other case studies).

DIGITALISATION

Over the last decade, the CRA has sought to increase their technological capabilities and reduce the complexity of tax compliance. Electronic filing is by far the norm, with around 90% of personal returns and over 99% of corporate returns being submitted electronically. While returns do not have direct pre-population, the CRA's portals do allow taxpayers to download tax information that the CRA holds to aid in completing their returns.

The CRA is using the expanding pool of data available to target compliance activity, creating more timely audits and raising revenue collection. One case study used predictive modelling to identify likely non-filers and claimed to capture an additional CAD\$127.6m in revenue.

The CRA's online portal is well set up for agents to assist their clients, including easy client authorisation and an ability to limit junior staff's view to only the clients they work on, rather than the agents' entire client list. The CRA learned from past unpopular trial systems and now consults with major stakeholders,

including tax agents, when developing new initiatives. New systems are generally tested internally rather than with pilot schemes.

While online filing is the norm, paper and telephone filing are still available for the digitally excluded. Online filing is generally optional, but some (such as agents with more than 10 clients) can be penalised if they file offline without good reason.

CHALLENGES

The rapid digitalisation of the Canadian tax system has caused a proliferation of filing methods in different taxes, and some areas are further ahead than others. This inconsistency causes taxpayer confusion - for example, some returns require a client signature, while others do not. The rapid pace of change has also left the CRA itself with some older legacy systems, such as the pensions system, that are not easy to integrate with newer systems.

The CRA has not yet really capitalised on the increasingly cashless Canadian national economy, although there are aspirations to use the growing amount of information to target the grey economy. There are also limitations to how extensive pre-population can become in Canada, as many elements of the tax code - such as carry-forwards, elections, medical expenses, donations and splits of items between spouses - are not visible to the CRA's systems.

As the tide of digitalisation has continued, the CRA has redirected support resources towards online platforms and away from telephone and other service lines. Several interviewees noted that they have found that the service is increasingly targeted at high-volume answers for simpler and technological queries, with no easy way to escalate their more complex technical queries.

CONCLUSION

Canada's CRA has made good progress to develop its online presence and use of technology in simplifying the tax compliance process and expanding taxpayer services. However, its progress is starting to reach its limits, with online filing adoption nearing 100%, pre-population capped by factors not visible to the tax authority and older systems hampering efforts in some places. To continue pushing forward into the frontiers of modern digital tax administration, Canada will need to consider either expanding to new sources of information to aid pre-population, or overhauling its tax code to streamline what information is needed. Cross-system integration and updating older systems should also be a priority.



China

OVERVIEW

As a socialist market economy, the Chinese public sector is larger than the private sector, and state-owned enterprises are common. With the largest population of any nation, China's GDP per capita is relatively low for its position in world trade. Despite this, it has the world's largest e-commerce market, with social media and online shopping sites being widespread.

In the past, China's government's revenues were mostly from remittances from state-owned enterprises, but in recent decades the majority of government revenues has been through taxation. Tax is administered and collected by the State Administration of Taxation (SAT), a large organisation with over

3,000 major tax offices throughout mainland China which collect more than two trillion US dollars in revenue per annum (around 17.5% of GDP).

DIGITALISATION

The SAT has embarked on a series of tax digitalisation projects since 1994, under the banner 'Golden Tax Project', investing heavily in updating and harmonising their systems. The current stage, 'Golden Tax Project Phase 3', is focused on harmonising tax compliance processes across China and unifying the processes used in each province. A significant element of this is rolling out a partial e-invoicing system for VAT. With such a large manufacturing sector, VAT invoices are a key part of Chinese business, and there are two types of invoice in use - 'general' VAT invoices, which can be used for B2B and B2C transactions but not to reclaim input VAT, and 'special' VAT invoices, which are for B2B transactions only and are usable for claiming of input VAT. The Golden Tax Project created an electronic format for general VAT invoices, which has replaced a largely paper-based system and greatly increased efficiency.

While special VAT invoices are not yet in a digital format, the process of verifying these invoices has moved from manual scanning and verification to a digital verification process. With some manual verification of invoices previously being in the hundreds of millions, the time and cost savings are significant. This new electronic option was initially only available to taxpayers with an 'A' grade tax credit rating, but has since been rolled out to all businesses except those with the lowest tax credit ratings.

Another flagship project is the 'Thousand Groups Project', a data analytics project taking significant data from the largest business groups in China. Although originally targeting the top 1,000 groups as the name implies, the project has since expanded its service target to the top 2,000. Since 2016 this data has been used to conduct risk analyses and collected more than RMB 100bn in underpaid taxes.

As well as face-to-face and online administration, the SAT has also been expanding into mobile platforms, such as Alipay and WeChat, for tax compliance services and payments. This is in line with the rapid growth of the mobile-based internet economy in China.

CHALLENGES

With an enormous population, wide geography, and highly varied circumstances and tax policies in each region, creating a harmonised tax system for China is a daunting task. Differences between tax rules, administrative processes and systems in use have meant that progress has taken many years of work and substantial investment to bring improvements. Proper staffing of the SAT with appropriate professionals has also been a challenge.

While the initial steps in bringing e-invoicing and digitalisation to VAT have been successful, there is still much work to be done to complete the process; while there is a desire to begin special VAT e-invoicing in some provinces, there is no coordinated plan yet. Due to the difficulty of digitalising, the SAT approach is stage by stage and batch by batch, which means that transition is slow but steady.

The extensive data requested by the SAT from those companies falling under the Thousand Groups Project has been met with some resistance by taxpayers. There is not always a clear basis in law for what is requested, and some taxpayers have doubts about how the data will be used and kept secure. This has led to some delays and omissions in the project. Generally, taxpayer identity and tax administration security are also relatively simple compared to many other countries, with no significant use of two-factor authentication or other modern security measures.

Mobile payments and the internet economy are creating both challenges for the SAT as well as opportunities. While cash is less common and more payments have an electronic record that can be reviewed, more and more of the purchases themselves are going online and visibility of the transaction as a whole is reduced.

CONCLUSION

It is clear that digitalisation of the tax system is a major aim of the Chinese government. The incredible scale of Chinese society and economy makes modernisation a significant challenge, and the successes of the Golden Tax Project are commendable first steps. However, pre-population of returns is still nascent, and rolling out the digitalisation projects to all VAT invoices, corporate income taxes and personal taxes is the next goal.

Keeping up with the shifting business models of modern organisations and the shift from cash and credit cards to online payments will also be a key goal for the SAT as the Chinese economy continues its process to modernise and innovate.

Meanwhile, to ensure that taxpayer trust and collaboration are successful, the SAT will need to build a solid legal foundation for the collection of information required, and demonstrate the highest standards of data security for taxpayers' information by updating and expanding its security procedures. In this way, the SAT can enable further digitalisation while also improving taxpayer confidence.



Czechia

OVERVIEW

The Czech tax system is unusual in that for the most part it does not use progressive taxes, instead having mostly flat or regressive taxes.

Czechia has one of the highest rates of VAT fraud in Europe, predominantly from the creation of fake companies which raise large input VAT invoices - including some genuine transactions to mask the fraud - and which then never pay their VAT. With employer's taxes totalling around 35%, there are also a reasonable number of unregistered employees.

DIGITALISATION

According to the OECD's figures, Czechia is one of the least digital of the tax administrations within its comparison sample. There is also less of a plan for digitalisation in Czechia than in many other OECD countries.

The first digital law enacted in Czechia was the VAT Act in 2014, which required online filing for VAT statements and returns. In 2015 this was extended to other taxes and ongoing development is planned beyond this. The VAT system is robust enough to allow cross-comparison between input and output VAT by the tax authority, which is useful against a backdrop of high levels of VAT fraud.

The state offers 'data boxes', which are a secure processing centre for communicating with the government. These are mandatory for companies and optional for individuals, and some tax filings can be made through the data box infrastructure.

From November 2016, cafes, hotels and restaurants had to use electronic tills that track cash receipts and deliver VAT information electronically to the tax authority. This system was intended to be rolled out to all retail and wholesale companies, followed by all other businesses. However, while by 2018 the first two waves of the EPOS rollout were carried out, the project has now hit a snag. The planned rollout to all businesses had to be deferred, as the data requested falls outside the Czech constitution; the same lack of current legislation has prevented credit card purchases from being reported as intended.

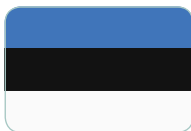
CHALLENGES

The implementation of the VAT reporting tool was very quick and the XML structure used to report has had reliability issues including loss of data, or taxpayers not being warned of non-compliant filings. There are also multiple filing methods available, which are not inter-compatible and which all require different information. This is acting as an obstruction to the potential efficiency savings for the tax authority, which must cope with multiple and non-integrated formats.

The new information is being used aggressively to chase non-compliance, with the authority's use of seizure powers for believed unpaid taxes having tripled since introduction. The burden of compliance has been spread unevenly, with smaller, Czech-based businesses that use Czech accounting systems finding their packages can output in the desired format, while larger multinationals are struggling to format their data in the required fashion.

CONCLUSION

Czechia has lagged behind many of its European neighbours in adopting digital methods for its tax system. The implementations they have made so far are fairly limited - for example, no pre-population is used - and implementation is suffering from being done in a short time frame. However, it is looking to evolve and has high-level parliamentary commitment to the project in the form of its finance minister. Yet, a wide range of filing options is undermining any likely benefits to be accrued.



Estonia

OVERVIEW

Shortly after achieving independence in 1991, Estonia decided to invest heavily in its digital government. The philosophy of 'digital first' has continued to the present day - and Estonia now has the fastest broadband in Europe, more digital start-ups per capita than Silicon Valley, and held the world's first general election that included online voting.

The Estonian tax system is relatively simple, with mostly flat taxes and a unique corporation tax system that taxes companies only on distribution of profits to shareholders, rather than on earnings. The wider culture is very individualist, with a great emphasis on personal freedoms.

The country's 1.3m population is spread out, with around 450,000 living in the capital, Tallinn, but no other densely populated areas. As such, the government pursued digitalising itself both as a way to reach its more remote citizens and also to differentiate it from the other former Soviet Union states entering the world market in the early 1990s.

DIGITALISATION

Since the 1990s, Estonia has sought to bring more and more of its government services online. This began with significant investment in computers and computer education in Estonian schools, under a major investment programme which continues to this day. Today all government services along with internet banking through the largest Estonian banks are linked via a single platform, called X-Road, which connects the distributed databases from different departments and organisations. The infrastructure is designed to be open-ended and decentralised. Over 600 government services are available through the platform.

Digital and paper signatures have had legal equivalency since 2000, and the ability to work in an entirely electronic environment is seen as a key legislative support of the wide acceptance of digital alternatives.

The Estonian e-ID card uses two-factor authentication to control both the proof of identity for citizens, as well as the ability to electronically sign documents and transactions.

Current figures indicate that over 94% of Estonian personal tax returns are filed electronically utilising pre-populated data which means this process takes less than five minutes on average. Throughout government services, the aim of the system is to never ask the user to provide information that is already available to the government through one of its databases.

The Paying Taxes report lists Estonia as having the lowest time to comply with taxes on a medium-sized company of any economy at fifty hours per year, barring a few low- and no-tax countries, as compared to a world average of 240 hours.

CHALLENGES

Since emerging from the Soviet Union, Estonia has had to enact a substantial change in the level of trust in government. Estonians have a wealth of their information stored in various interconnected government databases. However, the Estonian culture is accepting of the loss of privacy, seeing the gains in convenience as outweighing the costs. In many cultures, especially in the UK and US, this level of government knowledge about citizens' affairs would be seen as invasive and unacceptable.

The simplicity of completing certain tasks inevitably lowers the barriers for some forms of crime. For example, company registration takes an average of 18 minutes; Estonian authorities have since seen a rise in tax fraud as a result of easier access to company status to disguise or complicate the tracking of income.

Digital exclusion is not unknown in Estonia. The rate of uptake of digital services is notably lower among older citizens and remote parts of the country inevitably have worse internet connectivity. There is still a demand for paper, in-person, telephone and other older forms of government service delivery.

CONCLUSION

What Estonia's programme of digital transformation has achieved in terms of reach and efficiency gains is impressive, and thus it is rightly seen as one of the leading examples of digital governance in the world. This success grew out of a strong, central vision for transformation over the last three decades, despite changing administrations, and a commitment to flexibility and ongoing investment.

However, Estonia's relatively simple tax structure, small population and blank slate start upon exit from the Soviet Union, benefited the country and allowed it to revolutionise its digital government and tax administration in a relatively short period. These distinctive factors, while not unique to the country, do mean that the lessons learned from the Estonian story aren't universally applicable in other jurisdictions.



Italy

OVERVIEW

Italy is a modern, Western economy, with over 4m households paying tax. However, it has a relatively low rate of computer ownership, at around 65% of households, and slower internet speeds than much of the rest of Europe.

The tax code is fairly complex; all individuals need to file returns and most need to use a studio or 'commercialista' tax agent to deal with their tax affairs. Italy has one of the highest rates of tax evasion in Europe, with the Italian tax agency reporting over €180bn of evaded taxes (almost 17% of the actual tax take in 2013), and covering as many as 20% of Italian households. In 2012, the authority introduced the 'Redditometro', a tool to compare a household's spending against its declared income to flag which needed further audit. It also introduced a taxpayer tool called the 'Redditest' which allows citizens to anonymously check their own expenses against that same metric. But one of our interviewees pointed out that many Italians simply see the Redditest as a tool for finding the lowest reported income they can 'get away with'.

The accounting market in Italy is very fractured, with many small studios providing services to smaller customers, including many 'commercialista' (combination accountants and lawyers). The system is very bureaucratic - for example, Italian entities have to generate and report notarised copies of every accounting journal they make and all third-party transactions. While these can be electronic, the requirements are still very burdensome.

DIGITALISATION

For more than 10 years, tax filings in Italy have been online only. However, pre-population for individual taxpayers has only been employed since 2015, with a significant expansion of the plan ongoing in 2016. The plan covers those in employment and retirement, with more complex situations such as self-employment currently outside the scope of the system.

Many Italians are unsatisfied with the perceived level of services they receive for their tax money and resist paying taxes where possible. Tax evasion is at a high level, but the increased use of pre-population and better quality information sharing is looking to address this.

Additionally, in September 2015 the Italian tax authorities identified that the Italian tax gap had fallen to 6.6% of GDP, down from 7.6% in the 2007-13 period.

CHALLENGES

One of our interviewees noted that, while digitalisation had made the process of corporation tax easier in theory, in practice the tax authorities have used digitalisation to ask for a raft of additional information, including detailed transactional data, which has overall probably complicated the process.

With filing taking place online only and Italian computer ownership rates and internet speeds both well below the European averages, digital exclusion is, in theory, an issue. However, the tax system is already complicated and the majority of people need to use a tax expert, who will have computer access even if they do not. Unions and local municipalities provide subsidised advice bureaus called Centro Autorizzato Assistenza Fiscale (Authorised Tax Assistance Centres) that can assist with these matters.

For corporate tax, the authorities publish templates each year that define the correct format for making returns. However, these formats are often published only just before the official deadline, which then has to be moved back as a result.

CONCLUSION

The Italian tax digitalisation story is in many respects just starting. While digital methods have been used in tax administration for some time, the real power of transforming tax administration using these approaches has yet to be truly leveraged. A complex tax system and a reluctantly compliant population make collecting taxes in Italy difficult, however, there are some specific issues that have reduced the effectiveness of digitalisation.

For starters, the streamlining effect of digitalisation in corporate tax has been used not to reduce costs for the authority and taxpayers, but as a platform for requesting large amounts of additional data. This data is especially onerous to provide for smaller entities, who may not have the powerful accounting software available to the larger organisations in the market.

The presence of the Redditest system for taxpayers is an unexpected choice for the Italian tax authority - allowing citizens to assess the likelihood of a given return being flagged for audit. Multiple interviewees said that people prepared returns 'to the Redditest', declaring only what income was necessary to reduce the chance of audit.



Nigeria

OVERVIEW

Nigeria's government is highly federated, with 36 states and 774 local government areas. The legal system combines leftover English common law from Nigeria's colonial past with post-independence common law, as well as elements of traditional indigenous law and Sharia law.

Nigerian federal taxes - including corporation tax, value-added tax, withholding taxes deducted on payments made to limited liability companies, capital gains tax and more - are collected by the Federal Inland Revenue Service (FIRS). Each state also has its own tax authority which collects personal income taxes, withholding taxes and others from persons resident in that state. The Joint Tax Board led by the federal government brings together all of these authorities for discussions. While oil contributes only around 9% of GDP, revenues from the Petroleum Profit Tax - the replacement for CIT paid by petroleum companies - are estimated to account for over half of government revenues. There is also an extensive region-wide system of withholding taxes.

Corruption is a major challenge in Nigeria, with an estimated \$400bn lost to corrupt practices since gaining independence in 1960 and holding 136th place out of 176 in the Transparency International's Corruption Perceptions Index with a score of 28/100. Several periods of military rule and cultural and tribal expectations of graft have created an endemic problem which successive governments have worked to reduce, but have yet to eliminate. Notably, the FIRS itself is no exception - UN Office on Drugs and Crime research shows that 27.3% of interactions with tax and customs officers include a request for a bribe.

DIGITALISATION

Digitalisation efforts are in their infancy in Nigeria. A proper online platform was only introduced in 2017-18, allowing VAT and CIT return filing and company registration, along with some withholding tax schedule filing. Payments can now be made through a third-party payments provider for these taxes; individual taxpayers can also make payments via online banking. All these systems are currently optional and many taxpayers still rely on filing in person at tax offices.

In the past, withholding taxes required the withholding party to make a filing and then physically collect withholding tax receipts and withholding tax credit notes to distribute to their customers. However, in line with the revenue authorities' automation efforts, withholding tax receipts and credit notes can now be printed online. Furthermore, the physical application and issue of a Tax Clearance Certificate - a document that certifies that a company has settled the income taxes due for the three immediately preceding years of assessments - has now been replaced with an online application and issuance.

Nonetheless, it is clear that digitalisation is an aim for the Nigerian government, with federal task forces promoting it as a way to improve Nigeria's attractiveness to business. The Joint Tax Board has begun to lay out standards for digital filing to be shared among the federal and state tax authorities.

When registering for the portal, taxpayers are able to request an additional login for their tax agent.

CHALLENGES

Being so new, the system in Nigeria is facing significant difficulties. In some situations, online filing and payments must then be printed and taken to a tax office for vouchsafing, destroying any efficiency gain from the digitalisation of the process and also introducing a risk that the taxpayer may be asked to pay a bribe to an agent to facilitate their filing. What's more, the portals have experienced significant outages at times of peak demand, typically near filing deadlines, which further disincentivises taxpayers from relying on these channels.

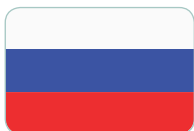
There is significant debate over the place of electronic filing in the law; with few updates to the legislation in the last decade, it is not clear whether FIRS has the necessary legal powers to mandate online filing, or to use electronic submissions as evidence in court. FIRS has recently requested companies to use a plug-in to allow automatic extraction of tax data from their accounting systems; due to security and privacy concerns, companies have resisted on the basis of challenging FIRS' legal ability to require this.

There have also been concerns raised about the security of logging in to the portal system, which currently uses only a simple password system.

CONCLUSION

There is still much to be done to digitalise the Nigerian tax system. While the early steps are promising - interviewees were pleased to see real effort being made and praised the accuracy of the VAT portal - the Nigerian government needs to invest in overhauling and modernising its legislative framework and commit to reducing the need for in-person filing. This of course must come with an expansion of technological capacity to support broadband access across the country and to improve uptime for the portal system.

Finally, security and confidentiality are essential to tax administration, with any potential weakness being hugely valuable to a would-be attacker. Taking advantage of modern security methods would also help to build taxpayer confidence in the system and help to move more administration online, which in turn would help to reduce the effect of corruption on the tax compliance ecosystem.



Russia

OVERVIEW

Russia emerged from the Soviet Union with a blank slate, building from the chaos of the disintegration period a new integrated economy to replace the centrally-controlled one that was previously in place. After the collapse of the Soviet Union, the tax system in Russia had to be created almost from scratch in the early 1990s. With a complex backdrop of political unrest, the system was initially very localised, with federal, regional and local laws overlapping. In the mid-1990s this was recentralised and the modern Russian tax system began to take shape. With less history behind it, the Russian system is somewhat

simpler than many Western comparators, although some aspects (such as rates and exemptions) are tinkered with as much as four times a year.

DIGITALISATION

The story of digitalisation in Russia is much shorter than in many other places. Since his appointment as the Head of the Russian Federal Tax Service (RFTS) in 2010, Mikhail Mishustin has been a key leader in pursuing a 'digital first' strategy for Russian tax. He also sits on the OECD's Forum on Tax Administration and is vice-chair of the group focusing on digital tax services. The rollout has been done quickly, with a central database that uses a common structure for all taxpayers and which links into the systems of each federal office. According to the RFTS's own information, its website is designed with ease of use in mind, with all information intended to be reachable within three clicks.

The Russian bureaucracy was infamous for its long lines and slow operation. Since beginning to digitalise, interviewees recognised a significant improvement in the efficiency of the system. Electronic signature is supported and most businesses are able to interact with the tax authority's system through low-cost commercial software. Some larger entities have to open their systems directly to the authority and all companies are required to supply all transfer pricing and VAT information in a prescribed format. This allows for easier manipulation and review by the RFTS.

The RFTS trials all new projects, experimenting with using the proposed system in one region of the country before rolling it out. This has meant fewer difficulties with implementation.

There is only basic pre-population for personal taxation. The tax portal does allow taxpayers to view past returns and details, as well as employment income and taxes. The withholding system is accurate enough, so that most employed individual taxpayers do not need to file returns.

Paper filing and in-person tax offices are still available, and with a new system the queues are much shorter than they were before digitalisation.

CHALLENGES

Making reporting formats mandatory does create some additional compliance costs for corporate taxpayers. In particular, the volume of information required leads to difficulty getting a submission that will be accepted by the automatic gateway. For example, the RFTS expects input and output VAT to balance across the country, but this is unlikely given the complexity of the VAT landscape. In theory, these costs are offset by a reduction in the likelihood and cost of tax audits, with the authority having better information to target these to where they are most needed. However, the change is too new to know for certain whether this saving has materialised.

Some interviewees were sceptical that the authority has the capability to use all the information that it receives, and that it was likely getting such large volumes of data simply because it was available and not for any specific purpose. Furthermore, the civil company registration legislation requires very similar information in a different format, due to low cooperation between these arms of government - further increasing the compliance costs to the taxpayers.

There are some rumours that pressures on the government's budget are driving some changes, with more taxpayers winning their suits against RFTS overreach and with the RFTS having an undisclosed revenue KPI to work towards. This distrust has led to additional resistance to some of the scheme's changes.

CONCLUSION

Russia has rolled out a programme of digitalised tax services impressively quickly. This has been assisted by a central authority with a clear vision for putting digital services at the heart of their work, along with

robust regional pilot testing. However, there have been some issues with increased costs to taxpayers – especially to companies – as the cost of compliance has increased. What’s more, the rapid pace of change has led to some inefficiencies, such as non-holistic approaches across different branches of government and information being requested before the authorities are ready to deal with it or to answer questions about the system.



Singapore

OVERVIEW

With low government spending, Singapore supports one of the lowest tax rates as a share of GDP for a highly developed economy, at around 14.2%. Tax rules are relatively simple for an economy of this small size, and there are no inheritance or capital gains taxes. While 90% of the land in the country is government-owned and the majority of Singaporeans live in subsidised housing, the overall high living costs make Singapore the most expensive country to live in for both citizens and immigrants (according to research by the Economist Intelligence Unit).

The politics of Singapore (and hence its tax laws) are very stable, with the ruling People’s Action Party having won every election since the beginning of self-governance in 1959. The Inland Revenue Authority of Singapore (IRAS) collects the majority of taxes and levies on behalf of the state. A small number of Singaporeans whose income is below the taxable threshold do not have to file tax returns, but otherwise the default is for universal filing.

DIGITALISATION

Personal taxation in Singapore incorporates many elements of pre-population, largely derived from employers’ returns, and completion of a personal tax return typically takes no more than 30 minutes. Commission-earning workers in some sectors, such as property and insurance agents, can create a similar pre-populated return. Since 2018, an agreement with some ‘gig economy’ private car hire companies means that drivers can also pass a summary of their gross passenger fares to IRAS via an API.

The GST regime is relatively simple, and administration is largely automated and filing is straightforward unless an entity falls under audit. Withholding taxes are online-only, filed through a site called myTax Portal. Corporation tax, by comparison, is less automated, and most automation in the area is by companies looking to streamline their own processes. Online filing is only mandatory for the largest companies, although a rollout to smaller entities is currently in progress. However, as an incentive to drive up participation, the deadline for online filings is later than for paper ones. Singapore has used the information it gathers to fuel a custom-built centralised database for analytics, helping IRAS to increase the automation of audits.

In the past, tax department employees and tax agents would access their company’s filings portal with their SingPass, a personal government digital ID. This led to security concerns as individuals could retain their access when moving jobs if not carefully controlled, and recently a mandatory switch has been made to a new system called CorpPass. This assigns a similar login to a registered officer for each company, who can then create additional delegated accounts for others to better control access to government services. In theory authorisations for tax agents would transfer from the old system to the new, but in practice this hasn’t been universal.

CHALLENGES

Singapore has a small geographic footprint and high levels of internet connectivity, but digital exclusion is still known, particularly among older taxpayers who are less computer-literate. IRAS maintains face-to-face counters for those unable to file online, and the digitally excluded are also more likely to be exempt from filing returns due to lower income.

The move to the new CorpPass system, which is mandatory since September 2018, has caused some administrative burdens. For SMEs, the burden on the senior staff to create delegate accounts and re-authorise their tax agents is significant. This has particularly affected smaller tax practitioners with multiple SME clients, who need to get re-authorisation from each. The new system is fundamentally similar to the older SingPass system and some interviewees questioned what benefit the mandatory change brought.

CONCLUSION

Singapore's digitalisation efforts are successful to the extent that they have been deployed. With favourable conditions - from a small country with simpler tax laws to a digital-ready economy and population - they perhaps could expand on the successes so far and look to take a leading position in digitalisation, as similarly advantaged economies such as Estonia have done.

The implementation of the new CorpPass system has had some teething issues and the benefits are not yet clear. For complex transitions, mandating systems like these comes with certain costs, but rolling out security improvements is always tricky.



United Kingdom

OVERVIEW

The UK is considered one of the most digitally advanced governments in general, and is one of the 'D7' group of digital-led governments (the D7 are the United Kingdom, Israel, New Zealand, South Korea, Canada, Uruguay, and Estonia).

Taxation in the UK is standard for an economy of its size; government revenues are principally taken from income taxes and employment levies on individuals and companies, as well as consumption taxes such as VAT. Most individuals do not complete tax returns, as a system of pay-as-you-earn deductions is in place, which for most with simple affairs will deduct the correct amount of tax without the need for any further filing. Those with more complex tax affairs, such as substantial investment income or with income from a business and property, still need to make returns, mostly on an annual basis. Company accounts and corporation tax returns have to be iXBRL (Inline Extensible Business Reporting Language) tagged to a greater or lesser extent, and filed online.

DIGITALISATION

The UK has steadily advanced the use of technology in its tax administration, having already introduced electronic filing for VAT returns (99% filed online) and for personal and business taxes (92.5% and 98% filed online respectively). At the time of writing, the British government has directed the tax authority HMRC to invest substantially in additional digital administrative methods, which will take the digital framework to a new level under the Making Tax Digital (MTD) programme. In 2015, the Government

awarded HMRC £1.3bn to transform itself into one of the most digitally advanced tax administrations in the world. The headline goal is to reduce the need for the annual tax return and to create a single view of a taxpayer's affairs through a portal on the Government website, GOV.UK, while reducing the UK's tax gap.

The UK tax authorities are now pre-populating personal tax returns with some information already held about, for example, an individual's earnings and taxes paid. The ambition is to expand this to government-generated income sources such as the state pension, before moving on to include more third-party information, such as bank deposit interest.

UK taxpayers are now eligible to sign up for a personal tax account (PTA), although at the time of writing, less than half have done so. The PTA shows earnings, taxes paid and an estimate of the individual's likely entitlement to the State pension on their retirement. Interest in the PTA is rising as public awareness builds. Businesses can sign up for a business tax account (BTA) which allows them to access information and services for most taxes.

VAT returns have had to be filed online for a number of years, but in most cases the numbers were simply typed into an HTML page on the GOV.UK website, with only about 12% filing directly from software using XML. From April 2019, MTD will require businesses to file their VAT returns directly from software via an HMRC API platform. The overall aim of MTD is for all accounting records of such businesses to be kept electronically.

MTD also includes plans for a new quarterly reporting regime in which businesses, both incorporated and not incorporated, would report summary totals of income and expenses to HMRC, which it would use to provide an estimated year-end tax liability and to target compliance activity. There is also a programme of work to provide digital services to individual taxpayers that are not required to complete annual returns by further developing the personal tax account.

The payroll tax system, once largely reliant on annual returns, was replaced in 2013 by Real-Time Information (RTI). RTI involves employers updating HMRC along the same timeline that they pay their employees. The faster return of information allows HMRC to adjust taxpayers' tax codes as the year progresses, with the aim of collecting the correct amount of tax from each individual at each pay point in the year, so reducing over / underpayments at the year end.

The current proposals for MTD include a longer term ambition to reduce 'silo'-based thinking. This would, for example, make it easier to offset between different taxes and also bring the penalty and filing schemes in line with one another. Additionally tax rules are being reviewed for possible simplification and consolidation. For example, the recent introduction of a nil-rate band for dividends and a personal savings allowance will reduce the volume of tax compliance work, without making a significant difference to the total tax revenue collected. Consequently, this increases in the overall efficiency of the system. Likewise, the use of the cash basis is to be expanded to additional small entities to reduce the difficulty of making calculations.

CHALLENGES

The complexity of the payroll system, together with differences between tax law and employment law in the UK, is continuing to create challenges for software developers and employers.

The model that HMRC is proposing will require the majority of businesses, whether incorporated or otherwise, to report figures quarterly. There are inevitable costs to doing this, acquiring hardware and software to support it, training needs, and time. There has been considerable controversy about the level of cost being imposed on business and many have challenged the extent to which this cost has been considered when assessing the benefit of the MTD programme: transferring administrative costs from HMRC to the taxpayers would not create a net benefit for the economy.

The original plans for MTD were to begin with quarterly reporting for income tax in April 2018 which would have put the greatest strain on the smallest taxpayers. The timetable was later amended and the

programme will begin with VAT filing by businesses with income above the VAT threshold (currently £85,000) in April 2019. An open beta for VAT began in October 2018 and a much smaller private beta has been running for income tax since April 2017. However, preparations for Brexit have divided HMRC's attentions and resources.

The UK, unlike most other countries of its size, does not have a national ID scheme or reliable cross-service identifiers for taxpayers. Instead, a range of references such as National Insurance Number, Unique Taxpayer Reference and Company ID numbers are used, but these are hard to tie together with individual identities (especially for those who have not got all or any of these), and consistent taxpayer identification might be a barrier to adoption.

Development of online services for tax agents has lagged behind the provision of services to taxpayers, causing considerable frustration in the agent community who do not have access to all the information and services in their clients' personal and business tax account. The gap has largely been due to difficulties in developing robust and secure authentication and authorisation to allow access to agent services. HMRC has committed to giving agents access to everything their client can see and do, but this is only being addressed now and only for new services as they are developed.

However, HMRC is engaging extensively with third-party developers to develop additional API-based software for compliance - including both software vendors and the in-house tax departments of larger corporations. This should help to smooth the launch of the digitalisation wave as it continues.

CONCLUSION

The UK's digitalisation process is already substantially under way and is ahead of many comparators. The further work planned in MTD is ambitious and will bring the UK up to one of the leading digital tax systems if carried out successfully. However, the current timeline and plans for change are aggressive, will be expensive for business and will be hampered further by preparations for Brexit. The UK tax system is among the world's most complex and therefore the proposed simplification measures may not be sufficient to make the digitalisation process viable. It is also unclear whether the reality of reporting quarterly from digital records will be as straightforward as was hoped. The UK has a great opportunity to build a leading digital tax administration, but it must take care to make the transition carefully and correctly and not be rushed into making mistakes.



United States of America

OVERVIEW

The tax system in the US is administered at a federal level principally by the Internal Revenue Service (IRS), except for some minor taxes collected by other agencies. State and local taxes are also levied but fall outside of the scope of this review. Tax revenues come mainly from income and payroll taxes, with a relatively small proportion coming from corporate and capital gains taxes. The US is very unusual as it requires its citizens to pay US taxes on their worldwide income, even if they are no longer resident in the US.

With an extensive system of deductions and credits, all taxpayers are required to prepare and file returns annually. As the payroll withholding system is basic, most taxpayers stand to receive a tax credit at the year end, which is often substantial, especially for lower-income taxpayers. As a result, the US faces significant issues with identity fraud, as diverting a tax rebate can be lucrative.

DIGITALISATION

With significant congressional pressure to increase its efficiency, the IRS has been computerising and digitalising its processes over the last few decades. It works closely with a consortium of third-party software developers (the Free File Alliance), which offers a range of both free and paid tax filing products. Around 85% of returns are filed electronically. The IRS is extremely efficient at tax collection, spending on average only \$0.34 for each \$100 it collects.

The use of digital filing is particularly advanced in corporation taxes, and the US ranks well in studies of ease of doing business and of paying taxes.

CHALLENGES

The IRS has the two oldest computer systems in the US federal government. Around 60 different case management systems are in use, and most are incompatible with one another. Due to the nature of the annual appropriations process, where the IRS's resources vary year on year based on political winds, it is difficult for the agency to commit to multi-year modernisation projects to update its systems. Hence, maintaining and working around legacy systems is a significant challenge. There are also issues with digital exclusion, as 41m of the 155m US taxpayers do not have high-speed home broadband access, and some 14m do not have internet access at home at all.

Having essentially opted out of producing its own electronic filing system in favour of privately run options, the IRS has steadily become beholden to those private interests. It cannot readily provide features such as downloadable data, pre-populated forms, or true data analytics due to political lobbying, and legal resistance. There is also a particular strain of anti-government or distrusting sentiment in American society that means that proposals to increase the information available to the IRS face particular opposition.

Due to past issues with identity theft, security is a rightful concern for the IRS. However, it has consistently struggled with the accuracy of its auditing and security processes, with high false positive rates. For example, recent IRS figures showed that 55% of child tax credit issue notices were found to be in error, and that perhaps as many as 41% of the remainder could also have been. The false positive rate for identity theft is over 60%, and only around a quarter of taxpayers attempting to log in to their tax accounts are successful. These rates lead to low uptake of the online account, and to wasted time and effort in compliance processes. What's more, in some cases taxes are sought from low-income taxpayers, or credits denied due to errors in records, which could be prevented with more modern techniques such as text analysis. This is not to say, however, that identity theft is not a serious concern. With universal filing and rebates being very common, there is significant seasonal demand for filing assistance. This is partly met through the provision of filing services by unregulated assistant services, often offering services part-time alongside their usual employment. With relatively light regulation in this space, the potential for fraud or other crime is significant.

CONCLUSION

It's certainly not an easy job for the IRS to administer the tax system of the world's largest economy. The annual appropriations cycle leaves the IRS struggling to commit to longer-term modernisation processes, and its ageing infrastructure makes building a meaningful unified online account for taxpayers all but impossible. On top of that, having created a consortium with third-party providers to supply basic online filing facilities, the IRS has become unable to advance its own taxpayer services without opposition from those same parties. The IRS would have to renegotiate those relationships in order to be able to make any significant progress.

With the US tax system requiring universal filing and the low level of withholding taxes in use, most taxpayers are expecting a rebate when filing. This creates additional incentives for fraudsters. The IRS needs to create a system that is able to catch any fraudulent attempts, while not causing undue delay for genuine claimants.

There are over 1.7m chartered accountants and students around the world – talented, ethical and committed professionals who use their expertise to ensure we have a successful and sustainable future.

Over 178,500 of these are ICAEW Chartered Accountants and students. We train, develop and support each one of them so that they have the knowledge and values to help build local and global economies that are sustainable, accountable and fair.

We've been at the heart of the accountancy profession since we were founded in 1880 to ensure trust in business. We share our knowledge and insight with governments, regulators and business leaders worldwide as we believe accountancy is a force for positive economic change across the world.

www.charteredaccountantsworldwide.com
www.globalaccountingalliance.com

ICAEW

Chartered Accountants' Hall
Moorgate Place
London
EC2R 6EA
UK

T +44 (0)20 7920 8481
E itfac@icaew.com
icaew.com/digitaltax

 facebook.com/icaew
 twitter.com/icaew

