

# 4 Assessment

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This chapter looks at the tax assessment function, which includes all activities related to processing tax returns and payments. It comments on the use of e-channels for filing and paying, outlines administrations' efforts to provide pre-filled returns, and discusses the level of on-time return filing and payment. It also provides examples of the impact of technology and data sciences techniques on refund processes.

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## Introduction

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

Previous editions of this series have highlighted how the widespread enabling of electronic filing and payment by taxpayers has helped administrations to reduce their costs and improve the services they provide. This trend has continued with an increasing range of supporting services and options now also being made available.

Tax administrations are also managing an expanding range of data that administrations are collecting electronically, including from a growing number of third party organisations. This is facilitating a shift towards more intelligent use of data, and more complete pre-filled returns, increasingly driven by the use of artificial intelligence and machine learning. This is also helping to create more upstream compliance approaches that can minimise or prevent errors in returns. As well as updating information on the use of channels used for filing and paying, this chapter will:

- Outline administrations' efforts to provide pre-filled returns for individual and corporate taxpayers, including the expansion of this approach by some into "no-return regimes";
- Discuss the levels of on-time return filing and payment; and
- Provide examples of how technology and the application of data sciences have improved refund processes.

## Use of e-channels for filing and paying

With digitalisation continuing to transform everyday life, it is unsurprising that the uptake in the use of e-filing and payment channels continues to grow. Table 4.1 provides average e-filing rates from jurisdictions that provided details of channels used by taxpayers to file for the years 2018 to 2020. Over that period, more than nine-out-of-ten business taxpayers filed their returns electronically. For personal income tax return filers this figure is around 85%. Also, it should be noted that for a significant number of administrations a 100% e-filing rate has already become reality (see Table D.13 in the ISORA data).

**Table 4.1. Average e-filing rates (in percent) by tax type**

Tax type	2018	2019	2020
Personal income tax (47 jurisdictions)	80.0	82.4	85.6
Corporate income tax (50 jurisdictions)	92.3	93.4	94.2
Value added tax (44 jurisdictions)	96.2	96.9	97.8

Note: The table shows the average e-filing rates for those jurisdictions that were able to provide the information for the years 2018, 2019 and 2020. The number of jurisdictions for which data was available is shown in parenthesis

Source: Table D.13 Electronic filing.

Looking at the evolution of e-filing rates over the period 2014 to 2020 shown in Table 4.2, it is clear that e-filing rates have increased significantly – between 15 and 20 percentage points – across the three main tax types. (It should be noted that the table only takes into account information from jurisdictions for which data was available for both years 2014 and 2020, which explains the differences in 2020 averages shown in Tables 4.1 and 4.2)

**Table 4.2. Evolution of e-filing rates (in percent) between 2014 and 2020 by tax type**

Tax type	2014	2020	Difference in percentage points
Personal income tax (31 jurisdictions)	63.2	82.4	+19.2
Corporate income tax (33 jurisdictions)	76.3	94.9	+18.6
Value added tax (29 jurisdictions)	82.3	98.0	+15.7

Note: The table shows the average e-filing rates for those jurisdictions that were able to provide the information for the years 2014 and 2020. The number of jurisdictions for which data was available is shown in parenthesis

Source: Table D.13 Electronic filing and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.8, [https://doi.org/10.1787/tax\\_admin-2017-en](https://doi.org/10.1787/tax_admin-2017-en).

As for electronic payments rates, as can be seen in Table 4.3, more than 85% of payments, measured by number and value, were made electronically in 2020. The percentage of e-payments by value is slightly higher than the percentage of e-payments made by number, suggesting that particularly larger taxpayers make use of this payment channel. (Due to a change in the definition of the underlying survey question, it is not possible to look at the evolution of e-payment rates since 2014.)

**Table 4.3. Average e-payment rates (in percent) by number and value of payments**

Measurement type	2018	2019	2020
Percentage by number of payments (47 jurisdictions)	79.9	82.1	86.3
Percentage by value of payments (47 jurisdictions)	84.4	85.8	88.4

Note: The table shows the average e-payment rates for those jurisdictions that were able to provide the information for the years 2018, 2019 and 2020. The number of jurisdictions for which data was available is shown in parenthesis.

Source: Table D.18 Electronic payment proportions and third party withholding.

There remain a number of jurisdictions where the volume of returns filed using paper as well as payments through non-electronic means remains high. Among those jurisdictions that provided data, more than 52 million returns (for PIT, CIT and VAT) were still filed on paper (see Tables A.45 to A.47). However, it should be acknowledged that this is a significant reduction compared to the years prior to the COVID-19 pandemic where, for the same set of jurisdictions, 88 million returns were filed on paper in 2018 and 75 million returns in 2019.

It is to be expected that this figure will further decline over time as more administrations take steps to encourage more taxpayers to use electronic platforms where possible. This will not only lower administration costs but could also reduce the administrative burden on taxpayers over time.

### Box 4.1. Examples - E-filing

#### India - Integrated e-filing and centralised processing

The Integrated E-Filing and Centralized Processing Centre 2.0 (IEC 2.0) is a technology led innovation that aims to transform tax filing and processing. Beyond the core functions of e-Filing and processing of tax returns, this project has also helped taxpayer engagement and facilitation so that their issues can be resolved in more efficient and effective manner.

The project is achieving its objectives by making it easier to file returns using wizard-based forms, an intuitive user interface with simple questions to guide filing journey and generating pre-filled returns for the tax payers. More than 61 million returns were filed this way in fiscal year 2020-21. It is also actively promoting taxpayer education and e-verification of tax returns and has established a complete

paperless environment. IEC 2.0 has reduced the processing time of returns on a year-on-year basis and is achieving real time processing of returns and credit of refunds.

IEC 2.0 has reduced errors, and is achieving its target of “first-time-right”. Defective tax returns out of total tax returns filed have reduced from 1.05% for fiscal year 2019-20 to 0.0025% for fiscal year 2020-21. IEC 2.0 aims to provide convenience and simplicity through a “one-stop shop” for taxpayers, helping to reduce their compliance burden.

See Annex 4.A for supporting material.

### **Japan - Centralized corporation tax return filing**

In Japan, large domestic enterprises, became required to submit electronically their tax return, including any attachments, for fiscal years beginning on or after 1 April 2020. With the introduction of this obligation, various measures have been taken to improve the convenience of taxpayers.

Until April 2020, these enterprises had needed to file their national and local tax returns through different electronic filing systems. Since then, thanks to the work to connect these systems, they have been able to remove duplicate inputs of common items in their national and local tax returns.

Secondly, until April 2020, enterprises had been required to submit their financial statements both to national and municipal governments when filing tax returns. To increase the convenience of taxpayers, they have now been able to remove the double submission of the financial statements with national and municipal governments sharing the information in the ‘back office’.

Going forward, there will be more work to make electronic filing available to all corporations, not only large enterprises but also small and medium enterprises.

See Annex 4.A for supporting material.

Sources: India (2022) and Japan (2022).

## ***Pre-filled returns***

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

The complexities of the legal frameworks governing tax can be a barrier to more automated tax calculations, and to help overcome this some tax administrations are exploring the use of machine readable legislation which can help automate the calculation process through the use of algorithms (see examples in Chapter 5). This is leading to reduced errors and reduced burdens for taxpayers.

Advocates of pre-filing initially encouraged its use with individual tax regimes that allowed relatively few deductions and credits, and where they could be verified with third party data sources. Advances in rules-based technologies, information-reporting requirements and the application of data science techniques mean that the approach can now be considered more widely. For example, survey responses show that in many jurisdictions PIT returns are now pre-filled with different income information as well as deductible expenses such as donations, school and university fees and insurance premiums (see Figures 4.1 and 4.2). The latest developments in some jurisdictions are described in Box 4.2.

In a growing number of jurisdictions, this concept now goes as far as totally pre-filling PIT returns, which the taxpayer then has to either agree (which may be by deemed agreement after a certain period of elapsed time) or provide further information which may lead to an upwards or downwards adjustment (see Table A.46). In their most advanced form, complete pre-filled returns are being generated for large proportions of the individual tax base. In addition, the availability of electronic invoicing systems allows tax administrations to start to go beyond PIT returns and pre-fill corporate income tax (CIT) and value-added tax (VAT) returns (see Tables A.45 and A.47).

### Box 4.2. Examples - Pre-filling

#### Australia – Prefilling programme

Prefilling information is a very effective strategy for the Australian Taxation Office (ATO) in improving voluntary compliance and reducing the tax gap, which is currently at 5.6% for individual taxpayers. The ATO currently prefills approximately 90 million rows of data into the tax returns for individuals each year. This accounts for approximately 88% of all income amounts reported by individual taxpayers. Ninety percent of these are accepted without amendment by the taxpayer.

The Data Acquisition Prefilling and Sharing program is the next development in this work, and aims to deliver a modernised, end to end data ingestion and analytics solution that will address current limitations and enable more scalable and adaptable approaches to on-boarding datasets and enabling analytical outcomes.

Incrementally, existing workloads are being transitioned off legacy patterns onto the cloud-based solution and all new use cases will be built using the cloud-based solution. The capabilities of this solution will also be incrementally enhanced, driven by the specific needs of the use case but designed in a way to produce an inventory of re-usable building blocks that will enable quicker, lower cost delivery over time. The new platform will provide a number of significant benefits to the organisation, in particular it:

- Enables the decommissioning of legacy systems with rapidly diminishing workforce skills and knowledge
- Avoids significant costs associated with upgrading niche on-premise systems and their associated licence, support and maintenance costs
- Provides greater agility to respond to business demand and technology trends
- Enhances the ability to leverage new data sources more easily to sustainably reduce the tax gap, targeted at 4.5% for individuals.

#### Colombia – Prefilled tax returns

This project used the information reported by third parties to the Colombian Tax and Customs Administration (DIAN) to reduce compliance costs for individuals and legal entities. By using this information, DIAN can prefill some fields of the income tax return form that the taxpayer can then verify. This is part of DIAN's strategy of making it easier for taxpayers to file their tax returns.

The results of the project have been significant. For the taxable year 2019, the number of taxpayers to whom the pre-filled income tax return was issued increased 296.4%, going from 781 012 to 3 095 575 and for taxable year 2020 this trend continued, increasing to 4 102 239 taxpayers, which represents an increase of 32.5 % with respect the taxable year 2019.

The suggested income tax returns have brought not only benefits for the taxpayers but also for DIAN. For the 2019 tax year, a total of 268 861 individuals who previously had not filed income tax returns, did file returns and paid approximately COP 35 billion. For the 2020 tax year, the challenge was

significant, taking into account the pandemic effects that decreased earnings of a significant number of people. Despite the impact of this situation, 576 416 people who had not been filling their income tax return, began to do so and made payments on an amount exceeding COP 111 billion.

### **Denmark - APIs (SOAP Web Services) to submit VAT returns**

In Denmark, an API has been developed for operators of accounting software, which makes it possible for companies to transfer data directly from the accounting software to the VAT return system of the tax administration with only one approval required from the company.

The API consists of three main elements:

- The first web service returns dates by which the legal entity has to submit VAT Returns. These dates are required, when submitting VAT Returns.
- The second web service submits a draft of the VAT Returns to the tax administration at skat.dk with all the completed fields. The legal entity can access the submitted VAT Returns and approve it.
- The last web service provides a receipt for the VAT Returns given that the legal entity has approved it. This service also includes payment information on how to pay any outstanding balance.

The sample client for the service is free and can be used in all accounting software. The API has been operating since December 2019. So far eight suppliers have connected their accounting software to the solution, resulting in around 30 000 companies automatically submitting approximately 100 000 VAT returns through the API.

See Annex 4.A for supporting material.

### **Germany - New software product for electronic filing for recipients of retirement income**

The German tax administration's online tax office (ELSTER) is introducing a targeted, simplified online income tax return for pensioners. This option – called "einfachELSTER" ("easy ELSTER") – is targeted towards domestic pension recipients who do not receive other types of income.

By offering this new service, the German tax administration aims to help pensioners fulfil their tax obligations, and make tax return preparation as simple as possible while still complying with applicable tax law provisions and IT standards.

The einfachELSTER system does not use a specific form. Instead, it conducts an "interview" with users, asking them a small number of questions to guide them through the income tax return. These questions use easy-to-understand language that is tailored to the target group. The service is easy to use, even for inexperienced users.

The einfachELSTER system also uses a highly simplified authentication process that is not only user-friendly but also complies with high security standards.

An agile, iterative process was used to develop the einfachELSTER system. The target group was actively included in the development process – pensioners tested each development stage and evaluated interview questions and explanatory texts in terms of clarity and user-friendliness. The feedback from users helped the development team build a system that is specifically tailored to the target group.

### **Portugal - IVA Automático +**

IVA Automático+ (pre-filing of VAT returns) is available to certain taxable persons established in Portugal. This pre-filing uses the output and input VAT values obtained from the data contained in

invoices issued via the Tax Administration's web portal and also the data submitted by taxable persons through the e-invoice system. In order to assess deductible VAT correctly, the taxpayer has to classify invoices where s/he appears as the acquirer in a business activity, as well as to mention the amount of legally deductible input VAT.

This functionality is based on data from the "E-fatura" (e-invoice system), which supports the transaction based reporting obligation. Taxable persons for VAT purposes have to submit selected information to the Tax Administration regarding each document issued, mainly invoices, independently of whether they were issued in electronic format or not. This obligation applies to almost all VAT taxable persons, and other taxable persons can also issue invoices on the Tax Administration web portal.

This functionality not only represents an easier way to fulfil the VAT return obligation available to smaller taxpayers, it also facilitates the compliance and control functions of the tax administration.

See Annex 4.A for supporting material.

### **Singapore - Extension of No-Filing Service (NFS) to self-employed persons**

From 2021, eligible commission agents and taxi/ private hire car drivers have been selected for the Inland Revenue Authority of Singapore's (IRAS) No-Filing Service (NFS). This means they would not be required to file their Income Tax Returns with IRAS unless they have taxable income which was not made known to IRAS through third parties, or if there are changes to be made to their pre-filled relief claims based on previous years' assessments.

Instead, their tax bills were computed based on pre-filled income information obtained directly from third parties from which they derived their income. A deemed amount of expenses, based on a prescribed percentage of their gross income earned, was automatically allowed against their pre-filled income.

To qualify for NFS, the commission agents and taxi/ private hire car drivers had to first have their income information transmitted to IRAS via the agencies and operators from which they derived their income. In addition, the income information received must be eligible for the Fixed Expenses Deduction Ratio (FEDR) scheme (e.g. below a certain threshold). The FEDR scheme prescribes a certain percentage of the agents' and drivers' gross income as expenses, which can be deducted against their taxable income.

About 12 000 self-employed persons benefitted from the NFS in 2021. For some, their tax payments are automatically deducted from their designated bank accounts, allowing for a fully automated and hassle-free tax filing and payment experience.

Sources: Australia (2022), Colombia (2022), Denmark (2022), Germany (2022), Portugal (2022) and Singapore (2022).

As the levels of data available to support pre-filing grows, tax administrations are able to develop predictive techniques that can spot errors that taxpayers make as they finalise their return. A growing trend is also the use of 'nudge' techniques to prompt completion of certain fields that data suggests a taxpayer should be completing. Techniques such as these are changing compliance approaches as they are reducing errors and bringing the compliance work 'upstream' into tax administration processes, bringing significant resource benefits to tax administrations. Later chapters have more detail on nudge techniques and the increasingly sophisticated use of data in compliance work.

### Box 4.3. Examples – Upstream compliance

#### Australia – Real-time online checks

In Australia, the Online BAS Check (OBC) is designed to improve the Business Activity Statement (BAS) lodgement experience for businesses by reducing the number of inadvertent errors (such as honest mistakes, transposition, and arithmetic errors). It uses analytics and clients' historic BAS data to forecast future outcomes and produce pre-lodgement nudge messages. The messages prompt the client in real time to check the amounts entered at a label where it is higher or lower than expected, helping them to get it right and reducing the number of inadvertent errors.

By providing real-time prompts, OBC presents an opportunity for businesses to review information, self-correct any errors and avoid post-lodgement adjustments or audit.

This preventative engagement delivers benefits for businesses through:

- Reduced compliance costs for meeting their tax obligations by avoiding penalties, general interest charges and costs associated with an audit process and/or the need to amend their BAS down the track.
- Improved confidence and visibility for business cashflow due to increased accuracy of assessments.

This is expected to reduce both post-lodgement client initiated amendments and also the effort required by the tax administration to undertake compliance activity to correct these Activity Statements post-lodgement and, in some cases, post-refund.

#### Spain – Using behavioural insight

In 2021, the Spanish Tax Agency (AEAT) launched an innovative project during the Personal Income Tax (PIT) campaign, developing several predictive models to improve the information provided by taxpayers in their returns.

Thousands of taxpayers modify, every year, the information related to income from work provided by the pre-populated PIT return. However, a significant percentage of these modifications are erroneous. In order to tackle this issue, AEAT decided to develop machine learning models that learnt from past tax procedures, by analysing and discovering which characteristics of taxpayers, or which of their circumstances, make them more likely to make a mistake in an eventual modification of the return. By doing so, the AEAT was able to categorize taxpayers who have a higher probability of making a mistake.

The system was integrated with the AEAT application for filing personal income tax returns. Therefore, when a taxpayer tries to modify data while filing the return, if the system determines that the taxpayer has a high probability of making a mistake, a 'nudge' message will be shown, with the aim of reducing the total number of erroneous modifications. With this new approach, AEAT managed to go one step further in achieving the concept of compliance-by-design, making use of behavioural insights and analytics to try to prevent undesirable actions on the side of the taxpayer that may harm the quality of the return.

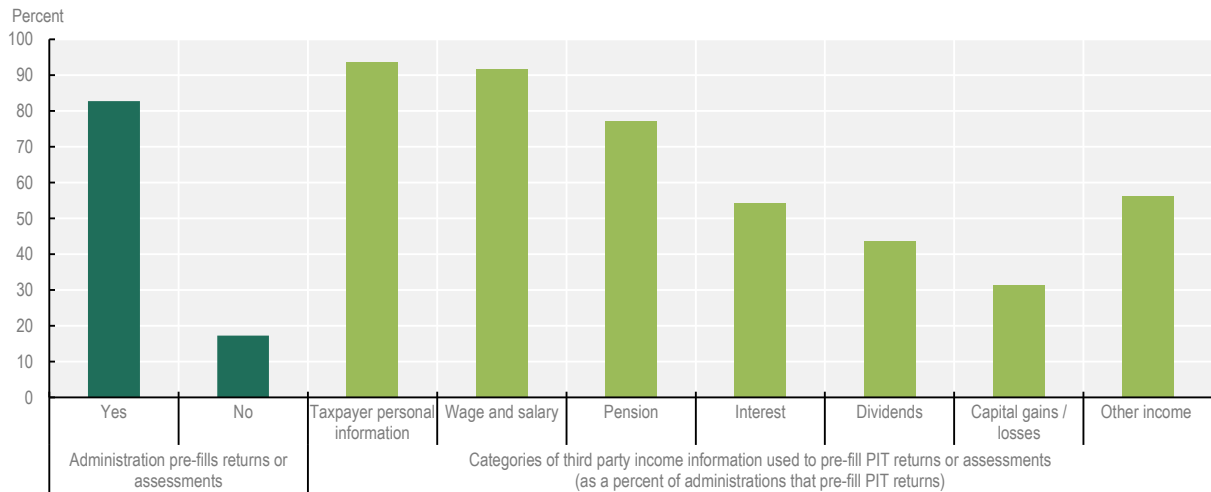
First estimates show that the use of nudge messages on taxpayer behaviour was highly effective as around 70% of taxpayers decided not to make the planned modification in the end.

See Annex 4.A for supporting material.

Sources: Australia (2022) and Spain (2022).



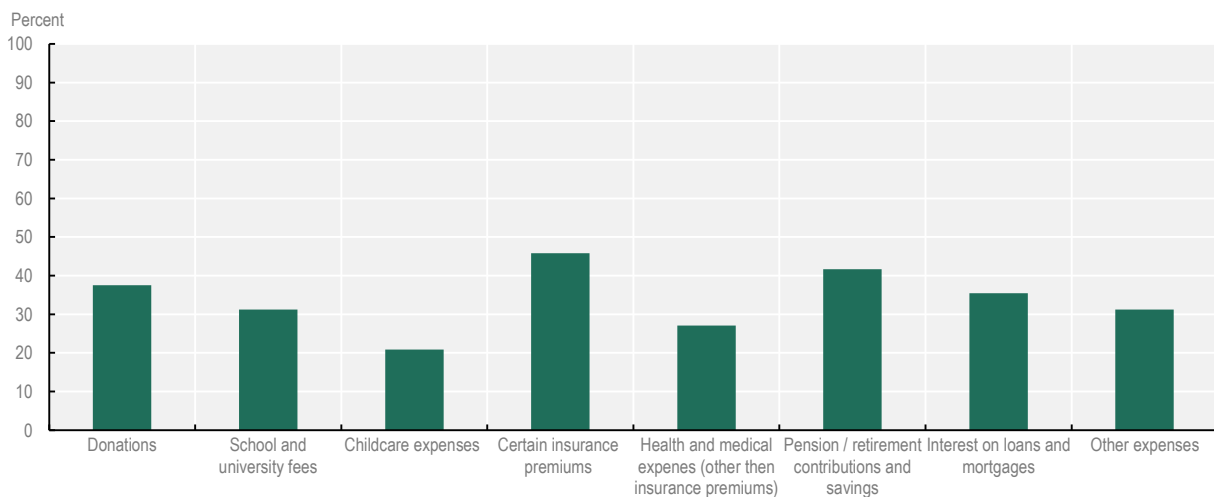
**Figure 4.1. Third party income information used to pre-fill PIT returns or assessments, 2020**



Source: Table A.42 Pre-fill of tax returns – income information.

StatLink  <https://doi.org/10.1787/888934310537>

**Figure 4.2. Categories of tax deductible expenses used to pre-fill PIT returns or assessments, 2020**



Source: Table A.43 Pre-fill of tax returns - expense information.

StatLink  <https://doi.org/10.1787/888934310556>

### ***On-time return filing***

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

Table 4.4 summarises on-time return filing for those administrations able to supply information by tax type. Apart from CIT, the rates are around 85%. The lower rates for CIT may be explained through more complexity in the corporate income tax system and the preparation of financial statements and year-end reports.

**Table 4.4. Average on-time filing rates (in percent) by tax type**

Tax type	2018	2019	2020
Personal income tax (39 jurisdictions)	85.2	85.0	85.3
Corporate income tax (41 jurisdictions)	78.0	79.1	78.3
Employer withholding (28 jurisdictions)	88.9	88.0	87.2
Value added tax (44 jurisdictions)	87.0	86.3	85.8

Note: The table shows the average on-time filing rates for those jurisdictions that were able to provide the information for the years 2018, 2019 and 2020. The number of jurisdictions for which data was available is shown in parenthesis.

Table 4.5 shows the evolution of on-time filing rates. This has remained broadly static between 2014 and 2020 though it is encouraging that despite the impact of the pandemic filing rates remained stable, although Figure 4.3 shows the significant variation in on-time filing rates by tax type.

The underlying data for on-time filing also shows significant variation in on-time filing rates between jurisdictions, often reflecting that some jurisdictions had different responses to the pandemic for different tax types. The 2020 report *Tax Administration Responses to COVID-19: Measures Taken to Support Taxpayers* highlighted how some jurisdictions may have required on-time filing, for example to pay out refunds or to provide other government benefits, but allowed delayed payment, while some may have relaxed penalties for late filing (CIAT/IOTA/OECD, 2020<sup>[11]</sup>).

In the future these rates may be expected to recover and improve further as electronic filing and taxpayer services, such as pre-filing, continue to grow. It should be noted that the table only takes into account information from jurisdictions that were able to provide data for both years 2014 and 2020, which explains the differences in 2020 averages shown in Tables 4.4 and 4.5.

**Table 4.5. Evolution of on-time filing rates (in percent) between 2014 and 2020 by tax type**

Tax type	2014	2020	Difference in percentage points
Personal income tax (35 jurisdictions)	85.5	87.2	+1.7
Corporate income tax (36 jurisdictions)	80.2	80.9	+0.7
Employer withholding (18 jurisdictions)	86.7	88.1	+1.4
Value added tax (39 jurisdictions)	86.3 (2016)	85.9	-0.4

Note: The table shows the average on-time filing rates for those jurisdictions that were able to provide the information for the years 2014 and 2020. The number of jurisdictions for which data was available is shown in parenthesis. For VAT, the table compares information for the years 2016 and 2020, as the underlying question was changed with ISORA 2018.

Sources: Table D.12 On-time filing rates, OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.6, [https://doi.org/10.1787/tax\\_admin-2017-en](https://doi.org/10.1787/tax_admin-2017-en) and OECD (2019), *Tax Administration 2019: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table D.12, <https://doi.org/10.1787/74d162b6-en>.

Given the impact on compliance rates, many tax administrations are turning to behavioural insight techniques to try and encourage more accurate filing. This is seeing promising results, with tax administrations reporting that ‘nudges’ at key points in the filing process can increase the timeliness of filing. Not only is this improving compliance rates, but is also freeing up resources that can be used elsewhere.

#### Box 4.4. United Kingdom – Use of behavioural insight to improve filing

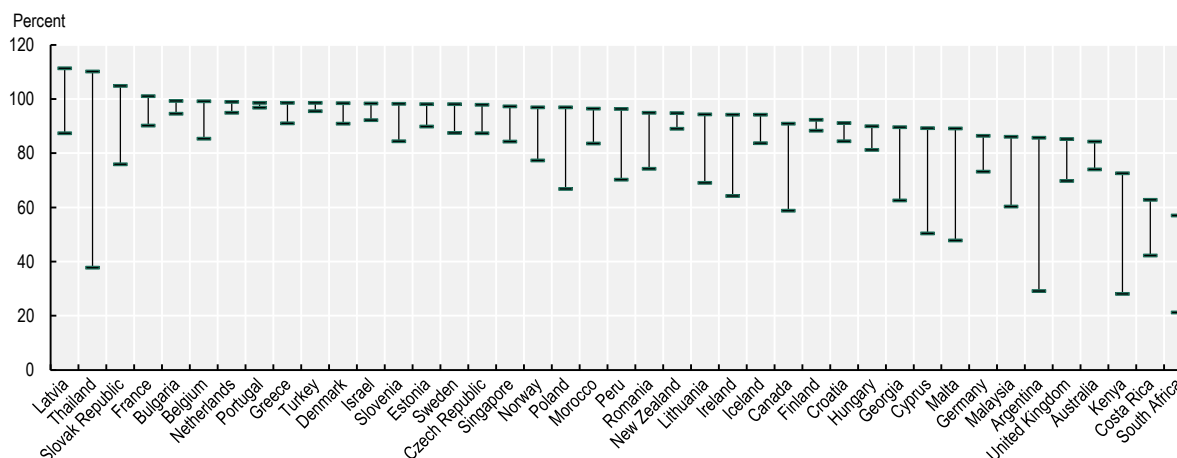
Despite their best efforts, some taxpayers make simple errors in calculating the tax they owe and others do not take enough care when they submit their tax returns. This, alongside other behaviours (e.g. evasion and avoidance), contributes to loss of revenue and widens the tax gap.

To address this, Her Majesty's Revenue and Customs (HMRC) has piloted the use of error prevention prompts in its online platforms to help customers avoid making common errors as they file their tax returns. The error prevention prompts appear in places where common errors can occur giving customers a chance to reflect on their entries before they are submitted. These digital prompts provide timely support to customers by directing their attention to key information as they are filling out their tax returns. This helps to build their tax literacy, helping them to get tax right, first time. By intervening early, this also helps to avoid the need for costly compliance interventions. Research with customers shows that digital prompts helped them to understand how to proceed or provided reassurance that they were proceeding in the correct way.

As the United Kingdom moves further forward in the digitisation of tax administration, HMRC has also collaborated with third party providers to develop error prevention prompts for use in commercial software. By working with third party providers, HMRC is creating more opportunities to support customers and prevent common errors at an earlier stage in the customer journey.

Source: United Kingdom (2022).

Figure 4.3. Range in on-time filing performance across major tax types, 2020

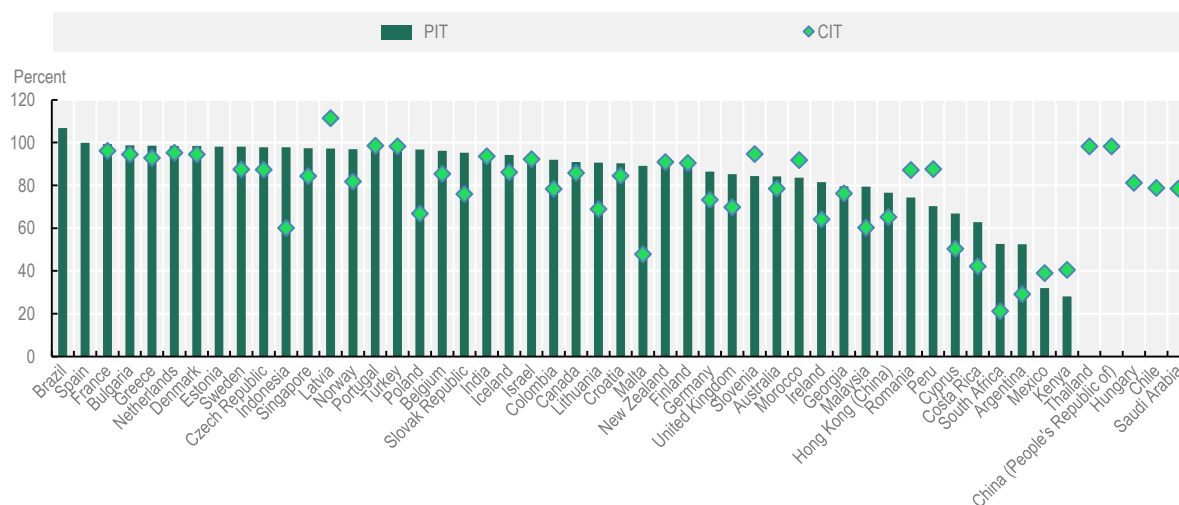


Note: On-time filing performance is expressed as a percentage of returns expected and can therefore be above 100%. The figure shows for each jurisdiction the range in on-time filing performances in 2020 across the four tax types: PIT, CIT, Employer WHT and VAT (where applicable). It only includes jurisdictions for which information was available for at least three tax types.

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

StatLink  <https://doi.org/10.1787/888934310575>

Figure 4.4. PIT and CIT on-time filing rates, 2020



Note: On-time filing performance is expressed as a percentage of returns expected and can therefore be above 100%.

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

StatLink  <https://doi.org/10.1787/888934310594>

### On-time payment

Payment of tax constitutes one of the most common interactions between taxpayers and tax administrations, especially for businesses that are typically required to regularly remit a variety of payments covering both their own tax liabilities and those of their employees. Administrations continue to make progress in increasing the range of e-payment options available to taxpayers and to increase their use. This progress not only lowers the cost to the administration, it can also increase on-time payments and reduce the number of payment arrears cases by providing improved access and a better payment experience. One significant development is the growth of payment facilities being built into the natural systems of taxpayers. This is making payment more seamless for taxpayers as they can use their existing banking or accounting software to make payments.

Table 4.6. Average on-time payment rates (in percent) by tax type

Tax type	2018	2019	2020
Personal income tax (32 jurisdictions)	83.7	82.4	79.2
Corporate income tax (33 jurisdictions)	84.8	85.2	82.5
Employer withholding (28 jurisdictions)	94.9	94.8	92.3
Value added tax (33 jurisdictions)	88.3	88.4	87.4

Note: The table shows the average on-time payment rates for those jurisdictions that were able to provide the information for the years 2018, 2019 and 2020. The number of jurisdictions for which data was available is shown in parenthesis.

Source: Table D.17 On-time payment performance.

On-time payment rates for those administrations able to supply information by tax type are summarised in Tables 4.6. and 4.7. Table 4.6 shows that in 2020 on-time payment rates have fallen when compared with previous years. The range of on-time payment depicted in Figure 4.5. shows a significant gap in on-time payment across the main tax types for a number of jurisdictions, in some cases above 50 percentage points.

This reduction in on-time rates is almost certainly an impact of the pandemic, reflecting the cash flow challenges businesses and individuals may have had. It may also reflect the numerous easements some tax administrations gave on payment timeliness to assist with the challenges of the pandemic, for example where taxpayers may have been required to file on time, but had longer time to pay.

**Table 4.7. Evolution of on-time payment rates (in percent) between 2014 and 2020 by tax type**

Tax type	2014	2020	Difference in percentage points
Personal income tax (16 jurisdictions)	80.4	78.4	-2.0
Corporate income tax (15 jurisdictions)	89.6	86.3	-3.3
Employer withholding (15 jurisdictions)	93.4	93.0	-0.4
Value added tax (17 jurisdictions)	89.0	88.8	-0.2

Note: The table shows the average on-time filing rates for those jurisdictions that were able to provide the information for the years 2014 and 2019. The number of jurisdictions for which data was available is shown in parenthesis. Data for Costa Rica has been excluded from the calculations for PIT, CIT and VAT as it would distort the average ratios.

Sources: Table D.17 On-time payment performance and OECD (2017), *Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies*, Table A.9, [https://doi.org/10.1787/tax\\_admin-2017-en](https://doi.org/10.1787/tax_admin-2017-en).

Future editions of this report will track these trends, and recovering and increasing on-time payment rates should continue be an area of focus for administrations given the amounts of revenue involved. This is why some tax administrations report investing resources in this area, as can be seen in the examples in Box 4.5.

### Box 4.5. Examples – Increasing on-time filing and payment

#### Hungary – Increasing on-time VAT filing

In view of the fact that the highest budget revenue is generated by VAT and the reduction of the VAT tax gap is of core importance, the central risk analysis unit of the National Tax and Customs Administration has initiated the development of an individual taxpayer risk model.

The purpose of the model is to anticipate changes in taxpayer behaviour at the time of submitting the tax return. It was assumed that by addressing this problem earlier, compliance can be maintained at higher levels.

To start, risk analysts collected tax administration data and information that could characterise this form of behaviour. During the work, professional and behavioural variables were developed, based on the data of taxpayers' employees, online invoicing, cash register operation, current account and representation data. Additional variables were set up based on the taxpayers' tax return habits, and a software analysis determined the strength of the indicators used to explain whether the taxpayer is significantly late or completely fails to submit the VAT return. From these parameters, the model could "learn" about the relevant behavioural characteristics of the group.

Based on preliminary results, the models have significant prediction power in identifying the behaviour of taxpayers.

See Annex 4.A for supporting material.

#### Singapore - Expanding e-payment options

In collaboration with a local bank, IRAS integrated its payment Application Programming Interface (API) with the bank's digital mobile banking platform – to enable taxpayers to view and pay their income tax

and property tax easily. This app made financial planning more inclusive and accessible, while recognising tax as an integral part of the financial planning process.

The app allows taxpayers to access the breakdown of their yearly assessable income, information of their property, their outstanding income and property tax balances, and their current financial holdings. This overview helps users easily work out their budget, income and expenses, including any upcoming tax payments. It also serves to remind taxpayers to pay their taxes promptly, thus avoiding missing payment deadlines and unnecessary penalties.

This solution also eases a common pain-point among taxpayers, who traditionally had to switch between different platforms to view their outstanding tax details and make tax payments. The integration with IRAS' APIs allows taxpayers to pay the correct amount of tax and the pre-population of the necessary information reduces any data entry errors by the taxpayers when making payment to IRAS. For IRAS, payments received are updated into the ledgers expeditiously and accurately.

Within 3 months from the launch of the bank's app, 70% of the bank's customers who used to pay their taxes via the Bank's online bill payment channels converted to using the app to access their tax details and make their tax payments.

### **Spain – Integrating online payments**

The Online NRC (Número de Referencia completo/Full Reference Number) is an IT tool developed to immediately transfer to the AEAT databases information about online payments made by taxpayers to settle their tax bills.

The NRC is a 22-character alphanumeric code that incorporates the basic information of the payment in encrypted form, (Taxpayer's National ID, tax return, period, amount) in such a way that guarantees both its own authenticity and the receipt on which it is recorded.

Prior to this new development, the information on payments made by taxpayers was sent to AEAT in two ways. The first from the information that banks send to the tax administration on a bimonthly basis, and the second as a result of the justification of payment presented by the taxpayer in the course of a tax procedure.

This new development will allow AEAT to solve, almost in real time, those cases in which taxpayers request certain actions (refund, lifting of seizures, issuance of certificates of income or of being up to date with tax obligations) that are conditional upon prior payment. Consequently, this new development provides two main advantages:

- It allows better services to be provided to citizens by reducing their physical presence in the offices, avoiding unnecessary trips.
- It speeds up recovery proceedings, thanks to the immediacy of the available payment information.

See Annex 4.A for supporting material.

### **United Kingdom - Open Banking**

HMRC offers customers a world leading Open Banking payment service, where HMRC provides a secure, efficient, and seamless single journey for our customers to pay tax that is due. This means the Open Banking Service Provider connects directly to the customer's bank and initiates an authorised payment to be sent to HMRC, reducing significantly the opportunity for error and fraud.

This new service differs from traditional bank transfer journeys which require the customer to manually input all the data needed to make a payment - such as bank sort code, account number and customer reference number - or rely on banking software which could hold out-of-date details. The new service

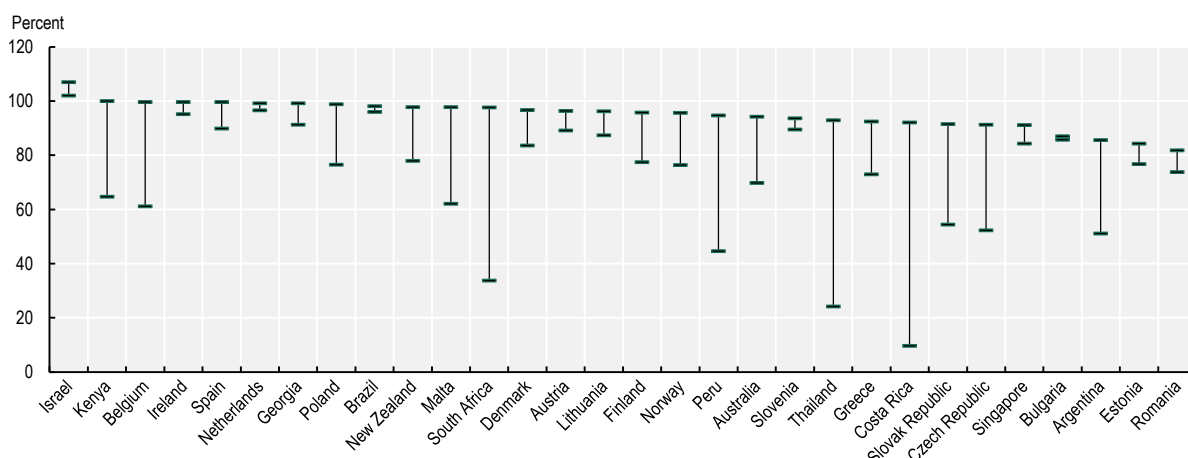
uses HMRC's systems to prepopulate the customer's payment details automatically, so customers are reassured that the HMRC bank account details, as well as the customer reference, are correct and their liability will be updated to show they have made the payment.

In the first year that HMRC introduced the service, HMRC received over 2 million payments to the value of GBP 5 billion. Over 500 000 of these were received for Income Tax Self Assessment alone in the peak month of January.

In addition to benefitting HMRC's customers, HMRC reduced its payment processing costs and reduced the numbers of payments requiring manually resourced intervention to allocate the correct account.

Sources: Hungary (2022), Singapore (2022), Spain (2022) and the United Kingdom (2022).

**Figure 4.5. Range in on-time payment performance, 2020**



Note: On-time payments are expressed as a percentage of estimated payments expected by due date and can therefore be above 100%. The figure shows for each jurisdiction the range in on-time payment performances in 2020 across the four tax types: PIT, CIT, Employer WHT and VAT (where applicable). It only includes jurisdictions for which information was available for at least three tax types.

Source: D.17 On-time payment performance.

StatLink  <https://doi.org/10.1787/888934310613>

## Refunds and credits

Given the underlying design of the major taxes administered (i.e. PIT, CIT and VAT), some element of over-payment by a proportion of taxpayers is unavoidable. Excess tax payments represent a cost to taxpayers in terms of “the opportunity cost”, which is particularly critical to businesses that are operating with tight margins where cash flow is paramount. Any delays in refunding legitimately overpaid taxes may therefore result in significant “costs” to taxpayers.

Table 4.8. shows the different treatment of VAT refunds, and highlights that some administrations pay out refunds immediately. This is helpful to business but tax administrations need to continue to be cognisant of fraud risks. Tax regimes with a high incidence of tax refunds are particularly attractive to fraudsters

(especially via organised criminal attacks) necessitating effective risk-based approaches for identifying potentially fraudulent refund claims.

During the COVID-19 crisis, the importance of paying out refunds quickly was a key issue for many governments, as a significant number of taxpayers were facing severe cash-flow problems. Tax administrations responded to this by prioritising refund applications or adapting refund processes, in some cases fully automating them. (CIAT/IOTA/OECD, 2020<sup>[1]</sup>) As economies emerge from the pandemic, the swift payment of refunds remains a priority for many governments.

**Table 4.8. Treatment of VAT refunds, 2020**

Percent of jurisdictions were ...			
VAT refunds are automatically paid out immediately	VAT refunds are paid out immediately subject to the availability of funds	VAT refund are established as a 'credit' in the taxpayer's account, until such time as the taxpayer may legally request the refund	VAT refund are established as a 'credit' in the taxpayer's account, until such time as the taxpayer may legally request the refund, subject to the availability of funds
57%	4%	37%	2%

Source: Table A.30 VAT refunds.

The learning from both the pandemic and previous approaches is now being combined with advances in technology, and the growth of data science to provide tax administrations with new options to mitigate risks and simplify processes. This can lead to reduced administrative and compliance burdens, and the creation of new innovative approaches which can be seen in the examples in Box 4.6.

### Box 4.6. Examples - Refunds and credits

#### Ireland - Real Time Credits

Real Time Credits is a new facility introduced for employees and pension recipients in 2021 in line with Revenue's strategy of "right tax at right time". Real Time Credits allows customers to claim as the expense is incurred, rather than at the end of the year through their tax return.

Where a customer has incurred the qualifying expenditure they can claim immediately through Revenue's secure online service and must upload a receipt with their claim ensuring compliance by design. The customer's tax calculation is adjusted in real-time to reflect the expense incurred. To give the customer the benefit of claiming their credit in real-time an instruction is made available to the payroll software of that customer's employer. The employer uses this instruction in payroll for the employee enabling a seamless real-time approach. Any resulting refund will be accounted for by the employer in the next payroll run.

Customers can claim tax relief as they incur qualifying expenditure. This means that they benefit immediately. Prior to the introduction of Real Time Credits, customers could only claim after the tax year ended and did not get the tax relief when the expense was incurred.

The introduction of Real Time Credits will result in significantly less pressure on resources at peak times as customers will be able to claim at any stage during the year. Launched in July 2021, over 11 700 claims were made up to the end of that year using this facility.

#### Spain - Agreement to the PIT refund proposal

Every year many euros have to be refunded to individuals as a result of the PIT campaign. Refunds are a target of the verification procedures of the Tax Agency and, although automated procedures for cross-checking and producing an assessment proposal are applied, the formalities to be followed are time



and resource heavy both for taxpayers and the Tax Agency. In this context, a more agile procedure has been implemented in the fiscal year 2020. In short, under this procedure:

- The Tax Agency applies its automated cross-checking procedures to detect discrepancies with the requested refund.
- Notifications are then issued in large numbers to taxpayers with discrepancies, with a proposal of reduction of the PIT refund. There is a deadline of 15 days to respond, with taxpayers either:
  - Agreeing with the proposal, in which case a receipt is automatically issued and incorporated to the taxpayer’s electronic file. This speeds up the refund processing. Taxpayers can confirm their agreement online or by phone and have the agreement recorded by a tax official.
  - Disagreeing, in which case they can challenge the assessment and the regular procedure is followed.

This automation of the process has reduced the average processing time of the procedure by 15 days, which has had a direct impact in the time to get the refunds by taxpayers.

See Annex 4.A for supporting material.

Sources: Ireland (2022) and Spain (2022).

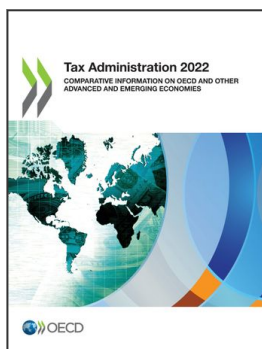
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- OECD (2019), *Tax Administration 2019: Comparative Information on OECD and other Advanced and Emerging Economies*, OECD Publishing, Paris, <https://doi.org/10.1787/74d162b6-en>. [3]
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## Annex 4.A. Links to supporting material (accessed on 13 May 2022)

- Box 4.1. – India: Link to document with more detail on IEC 2.0: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.1-india-iec-2.0.pdf>
- Box 4.1. – Japan: Link to a presentation providing more detail on the co-operation between national and local tax offices regarding the e-filing of corporation tax returns: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.1-japan-e-filing-cit.pdf>
- Box 4.2. – Denmark: Link to more detail on the code used in providing the web services: <https://github.com/skat/rsu-b2b-sample-client-java>
- Box 4.2. – Portugal: Links to a brochure and video explaining more about the service of pre-filing of VAT returns:
  - Brochure (in Portuguese): <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.2-portugal-brochure-iva-automatico.pdf>
  - Video (in Portuguese): <https://www.youtube.com/watch?v=xWcldpAJhlg>
- Box 4.3. – Spain: Links to presentations with more detail on the use of behavioural insights during the PIT campaign:
  - <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.3-spain-using-behavioural-insight-eng.pdf> (English short version); and
  - <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.3-spain-using-behavioural-insight-esp.pdf> (Spanish comprehensive version).
- Box 4.5. – Hungary: Links to a document and video containing more detail on the model developed to anticipate changes in taxpayer behaviour:
  - Document: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.5-hungary-predictive-modelling-of-vat.pdf>; and
  - Video: <https://www.youtube.com/watch?v=zviwtbPF6AI>
- Box 4.5. – Spain: Links to a document and websites containing more detail on the IT tool developed to immediately transfer to the administration information about online payments made by taxpayers:
  - Document: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.5-spain-online-nrc.pdf>
  - Websites (in Spanish):
    - <https://sede.agenciatributaria.gob.es/Sede/ayuda/consultas-informaticas/pago-impuestos-deudas-tasas-ayuda-tecnica/que-nrc.html>
    - <https://sede.agenciatributaria.gob.es/Sede/ayuda/consultas-informaticas/pago-impuestos-deudas-tasas-ayuda-tecnica/pago-autoliquidaciones.html>

- Box 4.6. – Spain: Links to:
  - A screenshot of the taxpayer view of a PIT return in the Tax Agency’s electronic office where the two possibilities (agreement or disagreement) are offered: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.6-spain-screenshot-taxpayer-view-on-online-pit-return.pdf> (English text added as a courtesy); and
  - The model template of the receipt of the agreement: <https://www.oecd.org/tax/forum-on-tax-administration/database/b.4.6-spain-model-template-of-receipt-of-agreement.pdf> (English text added as a courtesy).



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