HOW TO

NOTES

How to Implement Electronic Fiscal Reporting (Fiscalization)

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To improve the management of tax compliance risks, tax administrations are increasingly seeking opportunities to enhance their access and use of data. For many years, there has been a worldwide trend to implement electronic fiscal reporting (also known as fiscalization) to achieve these aims. Fiscalization refers to the process of automated reporting of a taxpayer's business activities to the tax administration. When implemented as an integral part of compliance risk management processes, fiscalization will contribute to an improvement in tax compliance by making it easier for taxpayers to voluntarily comply and discouraging taxpayers who may choose to not report their business transactions. However, fiscalization alone will not address all tax compliance risks. This how-to note provides practical guidance about the case for fiscalization and implementation approaches, including good practices and practices to avoid in relation to the key dimensions of fiscalization: data collection, data analysis, integration with compliance risk management, consumer engagement, and implementation.

I. Introduction

Tax administrations are increasingly seeking opportunities to access data to better manage tax compliance risks while also encouraging voluntary compliance by assisting taxpayers to efficiently manage their businesses and meet their tax obligations at minimal cost. To achieve this aim, there is a worldwide trend to implement electronic fiscal reporting (also known as fiscalization). Fiscalization is one of the elements of the digitalization transformation agenda, where revenue administrations implement new digitally enabled processes substituting traditional paper-based operations with new digital solutions, serving both the revenue administration and taxpayers (IOTA 2018). One region that recently has been very active in implementing fiscalization is the six jurisdictions in southeast Europe.[1]

Fiscalization refers to the process of automating the reporting of a taxpayer's business activities (sales and/or purchases) to the tax administration. It is usually implemented using fiscal cash devices or software for preparing and reporting e-invoices using specific protocols (for example, the Standard Audit File for Tax Purposes [SAF-T] protocol; see Appendix 2) to standardize electronic reporting to the tax administration.

The aim of fiscalization is to facilitate the documentation of business transactions and the visibility of those transactions to the tax administration through the use of online reporting processes. The system can also include a requirement to issue fiscal receipts to consumers (in some cases following online verification from the tax administration). It helps discourage taxpayers from not reporting business transactions (informal

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1 Fiscalization was introduced in many jurisdictions, first in Latin America at the beginning of this century and has been expanding to Europe and other jurisdictions. This note draws heavily on capacity development work provided by IMF's Fiscal Affairs Department in southeast Europe and the experiences of each of the six jurisdictions there. These six jurisdictions in southeast Europe are Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia. This capacity development was funded by the European Union and the Swiss State Secretariat for Economic Affairs.

economy) and allows the use of the granular business transaction data to improve the tax administration's compliance risk management (CRM) processes.[2] There is also an increasing trend by administrations to use these data to prefill tax declarations and returns, reducing the opportunities for noncompliance and increasing voluntary compliance.

While some administrations have reported improvements in compliance, fiscalization alone will not address all tax compliance risks and, in some instances, the desired outcomes from fiscalization are simply unachievable. Studies have shown that the lone strategy of digitizing documentation does not lead to an improvement in tax compliance (Casey and Castro 2015). However, if implemented appropriately, fiscalization can be a valuable component of a tax administration's CRM processes.

It should also be noted that implementing a fiscalization system requires a significant investment in information technology infrastructure by a tax administration and will likely require an initial cost outlay for taxpayers as they modify their systems (or purchase electronic fiscal cash registers) to meet fiscalization requirements. However, the worldwide trend of administrations investing in information technology capability and the increased use and acceptance of digital solutions have led to increasing adoption of fiscalization by tax administrations (OECD 2020b).[3] This has resulted in fiscalization models becoming increasingly sophisticated, providing standard format data automatically, at the transactional level, in real time, direct from taxpayers to tax administrations, with little or no human intervention.

The legal framework should create the obligation of issuing and reporting data on invoices and receipts, the right of consumers to demand them, and the regime of authenticity and data processing.

II. The Case for Fiscalization

Global taxpayers manage business operations and meet tax obligations by documenting their business activities. Documenting business transactions is a threshold issue between the informal economy[4] (undocumented) and the formal economy (documented) (Medina and Schneider 2018). Generally, a business creates documents relating to (1) obtaining and selling goods and services (purchase and sales invoices, cash register receipts), (2) inventory records, (3) delivery (transport documents), (4) receiving payments (financial records), and (5) accounting data.

Fiscalization is the vehicle that facilitates the documentation and online availability of business transaction data that, in turn, allows a tax administration to analyze those data to improve tax compliance (Alonso and others 2021). The general expectation is that fiscalization will lead to an increase in the level of tax compliance and a reduction of the tax gap by improving the transparency, access, richness, and accountability of data related to business activities (OECD 2019a).

The general increase in digitization enables fiscalization to extend to the documentation and reporting of all business activities with fiscal relevance (Sovos 2020). Fiscalization typically applies to the collection of digital data through fiscal cash devices (generally business-to-consumer, or B2C, transactions) and e-invoices (generally business-to-business, or B2B, transactions). Fiscalization can be extended to inventory in transit (transport), payments (financial documents), and accounting data. Tax administrations are increasingly able to encourage or oblige taxpayers to adopt digital options for documenting, collecting, and reporting business

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2 For the overarching CRM framework, see Betts (2022).

3 Fiscalization requires electronic data reporting but does not require electronic invoicing Summito (2022).

4 Informal economy is sometimes referred to as unreported, hidden, black, gray, parallel, or shadow.

transactions and other business data. Fiscalization is commonly referred to as the future of digital taxation (digitaxation; OECD 2021).

Fiscalization enables consumers to engage proactively in the tax collection process by requesting receipts and providing details of the receipts to the tax administration. While this provides the tax administration with transaction data, such involvement also raises awareness and ownership of the tax system among consumers, ultimately creating a societal awareness of the importance of taxation.

The benefits of fiscalization also extend to businesses by encouraging and requiring electronic communication between taxpayers and the tax administration. Fiscalization creates standardization and consistency in exchange of information between businesses, leading to efficiency improvements in invoicing, bookkeeping, and reporting of data to the tax administration. Ultimately, fiscalization can lead to prefilling of tax returns with benefits to both taxpayers and the tax administration.

Fiscalization that is limited to just collecting and storing of digital documentation by the tax administration is unlikely to have a sustainable impact on taxpayer compliance behavior and is not able to address all tax noncompliance (Casey and Castro 2015). Committed noncompliant taxpayers are unlikely to respond unless the data are demonstrably used by the tax administration to identify and act on them. Nevertheless, if a fiscalization system is implemented, it will be a key component of the CRM process because it does the following (Tot and Detelj 2014):

- Improves data collection.

- Engages consumers in the tax collection process.

- Provides more timely and richer data for analysis.

- Assists in identifying and assessing risks (low to high risk) and developing actions (facilitate and enforce) to address them.

- Enables errors to be detected and predicted so that taxpayers can be notified to make voluntary corrections.

- Provides data for use in enforcement action (debt collection, audit, sanctions, or investigation).

- Requires tax administrations to expand data storage, increase analytical capacity, and automate risk management and mitigation actions.

The fiscalization process is not a one-time "set and forget" process. It demands initial and continual management. The effective implementation and operation of fiscalization require consultation, planning, communication, monitoring, and evaluation. When considering if a fiscalization system should be implemented, careful consideration on the costs and potential benefits of such a system must be assessed together with an assessment on the capability of the tax administration and taxpayers to implement and maintain the fiscalization process. Baseline compliance levels across the four pillars of compliance (registration, filing, reporting, and paying) should be established to allow close monitoring of the effectiveness of fiscalization (Saulnier and Munoz 2021).

The following sections expand on the key dimensions of fiscalization: data collection, data analysis, integration with CRM, consumer engagement, and implementation.

III. Data Collection

Data collection underpins the effectiveness of fiscalization. Data collection commences with the creation of the documents that taxpayers typically use to manage their business, such as sales invoices or fiscal cash register receipts, that are used for calculating and reporting tax obligations (OECD 2019b). Complete and

accurate reporting of data to the tax administration relies on the timely capture of this documentation and data (OECD 2013). Traditional tax reporting models rely on the periodic collection of aggregated business activity data without detail of individual transactions. Fiscalization and digitalization provide tax administrations with real-time and more granular data on a taxpayer's business transactions.

Appendix 1 sets out several models of data collection, which can be grouped into four categories (OECD 2022b; Casey and Castro 2015; Pagero 2022).

The centralized model and the clearance models described in Appendix 1 are commonly referred to as closed systems because the tax administration controls the issuing of sales invoices (and, by extension, purchase invoices). These models can reduce (but not eliminate) fraudulent purchases and identify potential unreported sales. However, the efficiency depends on the ability of the closed system to detect and include all taxpayers in the system. The costs of implementing closed systems are also lower compared with open systems (European Commission and others 2022).

The automated reporting after issue model and the real-time model are commonly referred to as open systems. The taxpayers control the issuance of sales invoices. Regarded as more flexible to the needs of taxpayers, these models provide the tax administration with data and the capacity to cross-check purchases (by buyers) to sales (by sellers) and to detect nonregistered taxpayers. However, recipients of an invoice cannot be assured that the seller has declared the invoice unless a verification system is in place (Sovos 2020).

Tax administrations also collect a range of data from third-party sources. The collection and use of third-party data allow an administration to confirm or query taxpayer-originated data. Examples of third-party data include data from banking and credit card institutions, other government departments/regulators, local governments, business associations, informants, consumers, and international exchange of information. Exchange of information between the tax and customs administration is a critical source of information, regardless of whether administrations are merged.

A data warehouse will be needed to hold the vast array of data collected through the fiscalization processes and third-party sources. A data warehouse is the repository for the collected data allowing access and analysis by the tax administration's data analysts. If a tax administration does not have a data warehouse or an existing data warehouse will not have the capacity to store fiscalization data, the requirement to upgrade or purchase should be included in the fiscalization implementation information technology plan.

Box 1 sets out good practices and practices to avoid in data collection.

Box 1. Good Practices and Practices to avoid in Data Collection

Good Practices

- Ensure a legal basis for implementing fiscalization.

- Carefully consider the scope of fiscalization, such as size of taxpayers, sectors, and activities.

- Limit the number of taxpayers that are exempted from fiscalization.

- Ensure that data collection is based on processes currently used by businesses (cash registers and invoices), thus avoiding additional burdens on business.

- Recognize and emphasize in communications that fiscalization can help businesses to comply and make it difficult to not comply.

- Carefully consider the choice, availability, and procurement of fiscal equipment, software, and servicing. These should be free of cost for taxpayers, and taxpayers should have equipment/software options from which to select the most suitable for their business needs.

- Carefully define the fields of the collected data and the design of the database.

- Have extensive communication:

    - Emphasizing and advertising the ease and convenience that fiscalization offers to taxpayers.

    - Emphasizing the benefits of fiscalization, such as fair competition, prefilling, and avoiding noncompliance costs.

    - Encouraging correct tax declarations of turnover by informing and demonstrating to taxpayers and the community that the tax administration can identify noncompliers and will act.

Practices to Avoid

- High costs to taxpayers in terms of inefficient or costly software and hardware that are used to generate sales invoices and receipts.

- Failing to act on nonissuance of invoices by identifying and sanctioning taxpayers who do not issue invoices.

- Leaving taxpayers without answers to their questions and requests/complaints.

- Neglecting the registration of unregistered taxpayers (a preliminary step to fiscalization).

- Lacking fiscal devices on the market and having inadequate information technology support (infrastructure and staff).

- Failing to create laws for misdemeanors and criminal liability for failure to register and comply with regulations.

- Accepting the old ways of working with fiscal cash registers or invoices by noncompliant taxpayers.

- Failing to take action where unlicensed software and/or equipment has been identified.

IV. Data Analysis

Data analysis is the key tool in managing taxpayer compliance (Bomer and Griffioen 2022). A strong data analytics capability is key to an efficient and effective tax administration. The analysis of information provided in tax returns and from third-party sources is critical to managing taxpayer compliance, preventing tax evasion, detecting noncompliance, and managing corrective actions (International Chamber of Commerce 2020; Pagero 2022).Fiscalization can enable tax administrations to analyze data before a tax return is submitted, cross-check the final return to the business activity data, detect anomalies in real time, and respond to taxpayers after the transaction is documented (Koch 2019). Demonstrated effectiveness in data analysis will deter noncompliance (Pomeranz 2013). Real-time transaction data collection can change a tax administration's paradigm (OECD 2020a).

Data analysis enables the tax administration to better control all tax obligations using algorithms to detect: (1) omissions of sales transactions, (2) mismatches of purchase data compared to sales data, (3) fake purchases, (4) irregular invoice issuers, (5) missing traders, and (6) unexpected deductions.

The need for a comprehensive suite of data analysis tools, and the expertise to optimize the use of those tools, is critical to achieving significant tangible benefits from the fiscalization system. Appendix 3 provides examples of risk criteria algorithms.

Box 2 sets out good practices and practices to avoid in data analysis.

Box 2. Good practices and practices to avoid in Data Analysis

Good Practices

- Optimize systems and software to receive accurate and complete data.

- Provide data analysis feedback to taxpayers:

- Give real-time prompts when potential errors are detected.

- After further analysis, contact taxpayers (telephone, letter, email, an integrated and interactive platform in the tax administration website) when potential errors are detected.

- Demonstrate that the data collected are used to good effect in risk analysis and follow-up actions (facilitate and enforce). If taxpayers perceive the data are not used effectively, fiscalization and the tax administration will be discredited. How the data are used and its impact should be communicated to increase the risk perceptions among taxpayers.

- Integrate indirect (third-party) data as much as possible to develop a robust data analytics platform that does not rely solely on taxpayers' reported sales and purchases.

Practices to Avoid

- Poor design and operation of fiscalization, as well as weak standards in IT systems, can lead to security and privacy breaches. The trust and confidence of taxpayers and consumers in relation to the security and use of their data are particularly important.

- Inadequate information technology, such as hardware that is unable to capture and store the fiscalization data, software that is unable to analyze the data and staff that are insufficiently skilled to manage the system.

V. Integrating Fiscalization with Compliance Risk Management Processes

Fiscalization has the greatest impact on improving compliance when integrated with CRM processes (OECD 2004, and OECD 2020). Fiscalization alone will not mitigate all risks across the four pillars of compliance (Casey and Castro 2015) and is not a substitute for a comprehensive CRM function. The rich data provided by fiscalization are essential to risk identification and risk management. Failure to integrate and demonstrably use fiscalization data as part of risk management will discredit fiscalization in the eyes of taxpayers and may encourage some to adapt their behavior in attempts to avoid their obligations (Brondolo and others 2022).

If used as an integral part of the CRM process, fiscalization can shift the tax administration's priority to voluntary compliance strategies, which aim to prevent proactively rather than react to noncompliance (OECD 2017). In the past, compliance strategies have focused on enforcement (audit, recovery, sanctioning, and investigation) as the main tools to deter and correct noncompliance. The high quantity, quality, and timeliness of fiscalization data enable tax administrations to support voluntary compliance and adopt prevention strategies. For example, providing reported data back to businesses and prefilling of returns/declarations are features that provide a service to taxpayers and encourage voluntary compliance. More specifically, the voluntary compliance support system can be developed in several ways:

- Before returns/declarations are submitted, by estimating the values that must be declared.

- When returns/declarations are submitted, by detecting mismatches with transaction data already reported and issuing online alerts.

- After the returns/declarations are submitted, by further analyzing the data and comparing the return data to the predicted data based on peers, industry, tax types, and known risks.

However, these voluntary compliance strategies alone will not be enough to effectively reduce noncompliance; enforcement will still be needed. Improved identification of high-risk taxpayers and transactions enables audit and investigation resources to be better targeted. Audit procedures, sanctions for noncompliance, debt management processes, and other administrative procedures should be reviewed, modernized, and strengthened to ensure an effective overall CRM function is in place (Feria and Ruiz 2020).

Box 3 sets out good practices and practices to avoid in CRM.

Box 3. Good practices and Practices to avoid in Integrating Fiscalization with CRM

Good Practices

- Publicly demonstrate to taxpayers and the community that the fiscalization data they provide is being used to manage taxpayer compliance. For example, publicly demonstrate that taxpayers who do not issue receipts are being identified and acted upon or taxpayers that do not declare fiscalized sales are being addressed.

- Implement an autonomous CRM function within the tax administration that operates based on data analysis to do the following:

    - Prevent noncompliance and improve voluntary compliance.

    - Support taxpayers before filing returns.

    - Interact with taxpayers after risk detection promoting self-regulation.

- Implement CRM procedures:

    - Identify all potential risks and define measures to mitigate the risks using CRM.

    - Identify possible restrictions in legal regulations and prepare an adequate legal framework.

    - Ensure transparency and engagement of all organizational units of the tax administration in the decision-making process, allocating tasks and responsibilities of all participants in the process.

    - Place special emphasis on representatives of business associations, representatives of accounting institutes, and the information technology community.

- Automate work processes need to handle substantial amounts of fiscalization data. Processes include risk identification (risk criteria), risk assessment/prioritization, strategy development and mitigation actions, real-time interactions with taxpayers through tax administration website sharing results of data analysis, before- and after-returns submission, real-time email, telephone, letter, field visit, audit, investigation, monitoring returns and results from actions, making improvements.

- Make sure data that is relevant to the specific needs of field staff, auditors, and investigators is available to them. Processes should be automated to provide the relevant data to auditors when an audit case is selected.

Practices to Avoid

- Underestimating the capacity and will of individual taxpayers to continue to evade taxes (for example, there are cases of dual programs within fiscal devices). Remain vigilant, act on tip-offs, sanction deliberate noncompliers.

- Thinking that all noncompliance will be solved by fiscalization. Taxpayers will change their behavior to remain noncompliant. They may for example register correctly, file on time, report correctly, but fail to pay. Be prepared to monitor not just what taxpayers report and enforcement results but also to identify risks and monitor other pillars of compliance.

- Lacking sufficient training for field staff to use fiscalization data.

- Partially implementing fiscalization and not completing the operation may be less effective than no fiscalization.

VI. Consumer Engagement

Worldwide, a growing number of tax administrations are encouraging citizen engagement as a means to improve taxpayer compliance, for example, by encouraging (and sometimes requiring) them to request fiscal cash register receipts or invoices and by enabling, encouraging, and (sometimes rewarding) them to check that receipts are declared. Such engagement of consumers in the tax collection process can result in increased awareness, ownership, and community confidence in the integrity, fairness, and importance of their tax system—resulting in increased levels of voluntary compliance (Naritomi 2019, and Ainsworth 2008).

The following options can be used to achieve citizen engagement:

- Require consumers by law to obtain and retain invoices and fiscal cash register receipts or invoices.

- Encourage consumers through media and communications to check that invoices and receipts are reported or submit the receipts to the tax administration.

- Reward consumers with prizes, lotteries, and tax deductions or refunds for checking or submitting receipts. These measures should be specific, nongeneralized, and nonregressive as well as inexpensive for the tax administration.

- Enable consumers to check and report receipts easily, such as by providing smartphone applications that read and check quick reference codes printed on fiscal cash register receipts.

- Some tax administrations have implemented lotteries to reward consumers for requesting, checking, or submitting receipts. If managed appropriately, it can be an effective method of engaging citizens and can be efficient if costs are controlled (Fenochietto and Benítez 2021).

In addition, personal income tax expense deductions are allowed in some countries (OECD 2022a). In Portugal, consumers are entitled to a deduction in personal income tax (PIT), corresponding to a percentage of the value-added tax (VAT) paid on specific expenses in sectors at risk of tax evasion, such as those relating to health, education, housing, restaurants, and hotel accommodation if a receipt is obtained and submitted to the tax administration (Pires 2014). Deductions are also allowed for expenses incurred in high-risk industries, such as restaurants, hair salons, and vehicle repair shops. The data obtained through these credits are also used in the administration's CRM processes (Fenochietto and Benítez 2021). However, these types of measures should not be generalized or regressive and should not be costly for the tax administration. In addition, the effectiveness of consumer engagement programs depends partly on the effectiveness of the tax administrations' audit, enforcement, and sanctioning processes.

Box 4 sets out good practices and practices to avoid in consumer engagement.

Box 4. Good Practices and Practices to avoid in Consumer Engagement

Good Practices

- The law should require the following:

    - Taxpayers must issue receipts and invoices.

    - Consumers and businesses must obtain and retain the receipts and invoices.

    - The e-invoice process must require the purchaser to validate the e-invoice from the seller by either accepting or rejecting the e-invoice.

- Consumers need to be incentivized to obtain and check/report the receipt to the tax administration. One or more of the incentives mentioned here should be implemented.

- Extensive communication should:

    - Influence awareness of taxpayers and consumers that

    - Fiscal receipts/invoices must be issued.

- Consumers and businesses must obtain and retain the receipts and invoices.

- Promote the importance of fiscalization in the media. For example, in relation to VAT, "My VAT: consumers pay VAT, businesses collect VAT, the government spends VAT, the community benefits from VAT expenditure."

- Encourage ongoing media reports to inform citizens and taxpayers about the success of fiscalization.

Practices to Avoid

- Sending complex and confusing messages to consumers. Make messages simple and consistent.

- Undertaking large-scale field-based spot checks of the issue of fiscal receipts.

VII. Implementing Fiscalization

Implementing fiscalization affects all functions of a tax administration and a comprehensive strategic implementation plan is needed. Figure 1 sets out some of the key issues that need to be considered in formulating a fiscalization implementation plan.

Figure 1. Example of a Fiscalization Implementation Plan

Fiscalization Implementation Plan

Vision, Objectives, Tasks, Milestones, and Evaluation

What ?	Why?	Who?	How?	When?
What are you going to choose? • Objectives • Scope • Exemptions • Legal framework • Hardware • Software • Data warehouse • Data analysis • Voluntary compliance • Enforcement • Sanctions	**Why are you making these choices?** • Goals to achieve • Scoping the project • Costing • Predicting benefits	**Who is going to be involved?** • Taxpayers • Representatives • Consumers • Government • Consultants • Staff: Information Technology, risk, audit, taxpayer services, communications	**How will you achieve your objectives?** • Top-level support • Project leader • Project team • A plan involving all tax functions • Evaluation	**Timeline?** • Deadlines • Milestones • Actions

Source: IMF Staff.

The implementation plan should be:

▪ Progressive: staged and implemented over an extended period.

▪ Comprehensive: incorporating engagement with taxpayers, consumers, citizens, tax administration officials, relevant government stakeholders, and business associations.

▪ Inclusive: seeking the contribution of all stakeholders, highlighting the benefits while acknowledging the downside for some stakeholders but emphasizing the overall benefits to the jurisdiction.

▪ Measurable: outcomes from the fiscalization process must be monitored, measured, and communicated to all stakeholders. (Appendix 4 provides guidance on monitoring and measuring the impact of fiscalization.)

▪ Qualified: fiscalization is a project of change, affecting the tax administration, taxpayers, and the community. It is important that all participants in its implementation and operation, especially tax administration staff, have appropriate awareness and training.

▪ Transparent: sharing information with all stakeholders is essential—an internal and external communication plan is critical.

A project of this significance requires a leadership team and a multidisciplinary approach. The multiplicity of system and process affected demands a multidisciplinary implementation team, involving

specialists on different taxes and from different functional areas, as well as information technology specialists. Table 1 provides guidance on the issues that should be addressed in each of the administration's subplans.

Table 1. Guidance on Implementation Issues to Be Addressed (by Subplan)

Subplan	Recipients	Goals
Strategic implementation plan	Tax administration	Analyze possible capital and operating costs and benefits (feasibility study). Have required resources—internal staff, external experts, and contractors (clear terms of reference). Have top-down authority and priority from head of administration and appointed project team leader. Set up a project team (including external consultants and taxpayer representatives) with clear terms of reference, timelines, roles and responsibilities, progress reporting. Stimulate trust, teamwork, and engagement of all team members and all staff that will implement and operate fiscalization. Identify a small number of quick wins that can demonstrate value early.
External communication plan	Consumers	Explain why receipts/invoices must be obtained. Explain consumers' rights and obligations to obtain a receipt/invoice. Share results in the reduction of the shadow economy. If there are incentives or lotteries, explain how they operate. Explain how to use mobile applications.
	Citizens	Include tax citizenship in school education programs.
	Taxpayers	Explain consumer rights and obligations to obtain an invoice. Explain how to issue and report receipts and invoices. Highlight the benefits of voluntary compliance. Communicate how to comply with tax obligations. Share results of improving compliance.
Internal communication plan	Tax administration workers	Define and explain system objectives and main functionalities. Share results in reducing tax evasion.
External training plan	Taxpayers	Educate about the following: Main tax obligations of taxpayers. Applicable legislation. Use of computer systems.
Internal training plan	Tax administration workers	Explain the following: Applicable law, taxpayers' and consumers' rights and obligations. Mode of operation and use of computer systems. Compliance procedures and operation of automated systems.
Information technology systems implementation plan (Appendix 5 sets out the necessary systems building blocks to implement fiscalization)		Establish the following: Electronic signature and electronic notification system Compliance procedures for management system Data collection system and data analysis system Mobile applications for consumers Management systems of VAT refunds Automation of the audit system, enforcement system, administrative and criminal sanctions system
Plan of legislative changes		Set a limit for cash transactions. Obligate users to create bank accounts to handle invoice and receipt payments. Define the tax administration's access to banking and financial data. Establish incentives for consumer engagement.

Box 5 sets out good practices and practices to avoid in implementation practices.

Box 5. Good practices and Practices to avoid in Implementing Fiscalization

Good Practices

- Clearly define the objectives and scope of the fiscalization project
- Say what you are going to do and do what you say to avoid creating mistrust.
- Thoroughly analyze existing solutions and adjust, discard, and, when necessary, develop new solutions to meet current needs, allowing for specific country circumstances.
- Implement an autonomous compliance function within the tax administration that operates based on data analysis.

- Implement CRM procedures: train professional staff involved in implementing and operating fiscalization, and communicate in a timely manner.
- Focus on the benefits of fiscalization rather than the difficulties. For example, focus on the opportunity to improve business processes, for all participants in fiscalization (taxpayers, consumers, state, economy, and community), including:
    - Improved business efficiency, communications, reporting, fair competition, and reduced temptation to not comply.
    - Ease of payments of taxes and improved consumer rights.
    - The state will have funds to spend on community programs.
    - The community will get improved services.
- Continuously monitor the impact of fiscalization to identify areas of existing and emerging risks and conduct control and research activities based on data analysis and risk assessment.

- Measure the effects of the introduction of fiscalization in respect of improvements in enforcement results and improvement in compliance. Use comparative data over time, specific sectors, and individual taxpayers.

Practices to Avoid

- Frequent legal changes and complex legislation result in confusion and additional costs for taxpayers.
- Extending deadlines.

- Poor staff training.

- Slow and inaccurate responses to questions or resolving requests and complaints.

- Merely copying solutions from existing practices. Leaving solutions/decisions to external collaborators or the contractor. While their proposals should be considered, the final decision should always be made by the tax administration or the contracting authority in accordance with the terms of reference.
- Frequent changes in the teams involved in the project and the activities defined in the plan.

VIII. Conclusion

Improvements in digital technology and broad social acceptance of, and access to, that technology have made fiscalization a viable option for tax administrations and taxpayers. Fiscalization will be most effective if it is integrated as part of the CRM process to support shifting the tax administration's priority to voluntary compliance strategies, which aim to proactively prevent rather than react to noncompliance. It is an opportunity to better manage tax compliance by improving visibility of business activity and accurate reporting of transactions, and it contributes to an improved level playing field. Fiscalization can increase the motivation to comply through easier reporting and reduce the opportunity to not comply. For taxpayers who wish to comply, fiscalization provides easier reporting. For those who choose to not comply, fiscalization makes that choice much harder. Fiscalization can take tax administrations one step closer to seamless management of tax obligations, from business activity through to reporting, enabling tax administrations to better manage compliance and enabling taxpayers to get on with their business.

While opting for fiscalization may be an obvious choice, implementing fiscalization effectively is not so easy, as demonstrated in this note.

Appendix 1. Data Collection Models

Model	Description	Advantages	Disadvantages	Examples of jurisdictions
Centralized model	- Invoice[5] issued on state's platform - Purchasers accept the invoice on the platform	- Control of declared and deducted value-added taxes - Control of fake invoices	Closed system Difficulty to detect evaders	Italy Türkiye
Clearance model	- Tax administration clears invoices after the issuer requests - The purchasers agree on the clearance	- Strong ability to control tax issued and deducted - Control of fake invoices	Closed system Difficulty in detecting nonregistered or nonissuing taxpayers	Chile Mexico India China
Automated reporting after issue of invoices	Report data: - After issuing - Periodically - On demand by the tax administration	-Tax administration not involved in issue of invoices - Ability to detect fraud Less costly	Less effective in controlling fake purchases	Portugal Spain
Real-time reporting model	- Mandatory real-time reporting - Invoice data are reported to the tax administration at the same time as issuance	-Tax administration not involved in issue of invoices - Superior ability to detect noncompliant taxpayers	Higher costs to taxpayers and tax administrations	Hungary South Korea

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[5] Invoice refers to sales invoice (B2B transactions) or fiscal cash register receipt (B2C transactions).

Appendix 2. Use of SAF-T Files as a Means of Fiscalization

The SAF-T file (Standard Audit File for Tax Purposes; OECD 2005) was created by the OECD in 2005 and completed in 2010 (OECD 2010b) with the purpose of simplifying and standardizing the audit of computerized accounting.

The SAF-T file contains all the accounting information, typically composed of three tables: invoices, accounting entries, and assets inventory. The uniformity of SAF-T enables auditors to read the data more efficiently and effectively, regardless of the companies' computer system language or configuration.

Recognizing the uniform and structured nature of the SAF-T file, many tax administrations have required taxpayers to report transactions using the SAF-T file as their preferred method of fiscalization (OECD 2022b).For example, in 2013, Portugal obliged taxpayers to submit their SAF-T file of invoices monthly to enable processing of data and control of VAT and income taxes. Similar requirements were implemented in Luxembourg (2013), France (2014), Austria (2016), Poland (2016), Lithuania (2019), Norway (2020), Angola (2020), and Romania (2022).

The use of uniform SAF-T files across a range of accounting systems provides taxpayers with the flexibility to adopt billing and accounting systems that suit their business needs and budget. Most jurisdictions require that the accounting systems software be certified as suitable for use.

The adoption of SAF-T files as a basis for reporting data on invoices and receipts can be complemented with reporting data from accounting and inventories, allowing tax administrations to analyze data with an impact on controlling taxpayers' compliance in all taxes, especially in personal income tax and corporate income tax. The automation of cross-checks can make tax compliance control universal and immediate. The costs of implementing these systems are also lower (European Commission and others 2022).

Appendix 3. Examples of Risk Criteria

Goal	Risk	Description of algorithm
All transactions must be documented by receipts or invoices.	Detecting the absence of sales invoices or receipts.	Aggregating sales invoice value by the issuer's taxpayer identification number (TIN). Cross-checking with sales reported by consumers, purchases/deductions reported by purchasers, transport documents' database, payment database, inventory database.
All invoice issuers must be registered.	Detecting nonregistered taxpayers.	Aggregating sales invoice value by the issuer's TIN (including data provided by purchasers). Cross-checking with taxpayers' registration database.
All the invoiced values must be reported to the tax administration.	Detecting nonreported invoices and receipts data.	Aggregating sales invoice value by the issuer's TIN. Cross-checking with sales reported by consumers, purchases/deductions reported by purchasers.
All the invoiced value-added tax (VAT) must be declared for personal income tax (PIT)/corporate income tax (CIT) purposes.	Detecting omission/differences on submission of VAT/PIT/CIT returns.	Aggregating VAT invoices by the issuer's TIN. Cross-checking with database VAT returns/PIT returns/CIT returns.
All the deducted VAT must have been declared by the issuers.	Detecting irregular VAT deductions in returns.	Aggregating purchase invoice value by the purchaser's TIN. Cross-checking with VAT deductions claimed for the same period by the same purchaser.
All irregular VAT deductions must be detected.	Detecting VAT deductions that the law does not allow.	In respect of taxpayers who cannot claim VAT (for example, because the supplies they make are exempt or partly exempt from VAT): aggregate the purchase invoice VAT by the purchaser's TIN. Cross-check to the VAT (input tax) claimed by the purchaser. VAT claimed should be less than purchase VAT incurred by the taxpayer.
All the declared expenses for PIT/CIT purposes must be documented.	Detecting noninvoiced acquisitions deducted in PIT/CIT returns.	Aggregating the invoiced taxable amount paid by the acquirer's TIN. Cross-checking with database PIT/CIT returns (declared costs of acquisitions) for the same period by the acquirer.
All sales of goods and services must be documented.	Detecting noninvoiced sales that are falsely described as goods in the inventory.	Aggregating sales invoice value and purchase invoice value by the issuer's TIN. Cross-checking the difference between the sales value and purchase value with differences in inventories declared in PIT/CIT returns and aggregated data regarding transport documents (inflows and outflows).
All purchase credit notes received must be adjusted by the purchaser.	Controlling regularity of deductions regarding rebates after invoicing.	Aggregating the invoiced VAT paid by the acquirer's TIN. Cross-checking with credit notes aggregated by the issuer's TIN and debit notes aggregated by the purchaser's TIN/rebates declared in tax returns.
All VAT in returns regarding reverse charge regime must be controlled.	Controlling the declaration of the VAT issued and deducted in returns.	Aggregating VAT issued in reverse charge invoices by purchaser's TIN. Cross-checking with VAT payable in VAT returns (reverse charge fields) and VAT claimed in VAT returns (reverse charge fields).
Irregular zero rating of exportations must be avoided.	Controlling all declared exportations.	Aggregating value of exports on sales invoices by issuer's TIN. Cross-checking with exports declared on returns and customs database regarding exportations aggregated by TIN exporter.

Appendix 4. Monitoring and Measuring the Impact of Fiscalization

Table 2 contains examples of measures that should be benchmarked before implementation of fiscalization. The second column indicates the "likely potential best or worst case" movement in the measure during and after implementation. Note that many of the measures focus on VAT. These measures apply to all taxes, including income tax and employment taxes. VAT is specified in the measures because it will be the earliest reported (monthly, quarterly) tax and reported at the transaction level.

Table 2. Examples of Measuring the Impact of Fiscalization

Measure	Likely change arising from fiscalization	Notes
Net VAT declared as percentage of GDP	Increase is likely, due to increase in sales VAT declared and reduction in false purchase VAT.	Net VAT declared = VAT on sales plus import VAT minus VAT on purchases (including import VAT).
Net VAT collections as percentage of GDP	Increase is likely, due to increase in sales VAT declared and reduction in purchase VAT.	Net VAT collections take into account the influence of changes in debt.
Registration	Decrease in registrations is possible as taxpayers seek to opt out of the tax system or not enter it.	Measure the number registered, sector, market segment, average turnover.
Registration clusters	Clusters just below registration threshold may increase as taxpayers seek to opt out of system because it is transparent.	
Filing	Filing may decline as taxpayers choose this as a method of noncompliance. Prepopulation will likely prompt earlier filing.	Measure numbers and percentage filed and timeliness across sectors and market segment.
Correct reporting	Compliance is likely to improve: (1) Declared sales will likely increase, (2) claimed purchases will likely decrease, (3) ratio of sales to purchases will likely improve. Profit likely increases: for VAT, value of zero/exempt purchases (misdescribed) will likely increase to artificially reduce net VAT.	Measure sectors, market segments. Measure sales, purchases (taxable and nontaxable). Compare trends. Compare to GDP changes.
Debt	Compliance pillar is most likely to increase in noncompliance. Taxpayers who can't be noncompliant in reporting will choose to not pay on time or not pay at all. Likely time lag is 6 to 12 months before debt risk becomes apparent.	Closely monitor all debt: Sector/Segment/All tax types (VAT return payment and wages withholding will be first to decline)
Deregistration	Increase in false deregistration is likely as some businesses seek to leave the system.	
Bankruptcy	Increase in contrived bankruptcy is likely as taxpayers fail to pay tax debt and are forced into bankruptcy.	
Phoenix behavior[6]	This is a likely means of noncompliance if fiscalization forces taxpayers to declare all sales and claim only correct purchases. Businesses may respond by failing to pay, closing the business, and setting up once more under a different company.	
Fictitious registrations and "missing trader"	This is likely to increase. Companies are likely to be created to produce fictitious sales for conspiring buyers. The fictitious business will be seemingly genuine (registered, filing, reporting but not paying) and will go missing, bankrupt, or phoenix.	
Bank payment versus cash	Increase use of cash, especially among B2B.	Monitor cash in economy and flow of payments through banking system.
Shift to online trading	Increase online trading paid with cash on delivery.	
Internal use of resources—functional risk	Staff allocated to verifying fiscalization data problems, mismatches, and apparent anomalies will likely increase.	Measure number, value, and impact of interventions by HQ/field staff; monitor the types of risks being verified by assessing likelihood and consequence of a risk occurring; focus on

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[6] Illegal phoenix activity occurs when a company is liquidated, wound up, or abandoned to avoid paying its debts. A new company is then started to continue the same business activities without the debt (Australian Tax Office 2022). https://www.ato.gov.au/General/The-fight-against-tax-crime/Our-focus/Illegal-phoenix-activity/

Measure	Likely change arising from fiscalization	Notes
		highest risks and do not chase every apparent error/risk.
Perceptions about taxpayer behavior		Ask taxpayers directly what the impact has been on their costs, efficiency, compliance. Ask taxpayers what they think the impact is on other taxpayers (most likely get a more truthful answer). Ask citizens what they are observing.
Perceptions within tax administration and regional offices	Staff will observe changes from their perspectives as administrators and will have observations from their private life.	Ask questions similar to those asked of taxpayers.

Appendix 5. Systems Building Blocks to Implement Fiscalization

System description	Goals	Functionalities
Implementation phase 1: Data collection		
1.1 Definition of data and format to be reported by taxpayers	Collect all data in a structured way	- Design of databases - Information validation modes - Interfaces with other databases and systems
1.2 Definition of communication channels	Use of appropriate channels for the types of taxpayers	- Online data communication - Data communication by file - Data communication by web service
1.3 Implementation of the data submission system	Definition of information input interfaces through the different channels	- Insertion of information - Validations - Database recording - Proof of delivery - Consultation of information by issuers and acquirers
1.4 Collected information processing system	Verification of the consistency of the information collected	- Central validation of information - Notification of errors or omissions to contributors - Treatment of declarative defaulters
1.5 App for consumers	Sending and querying information by consumers	- Consultation of documents in which the taxpayer appears as acquirer - Sending documents not sent by the issuers
1.6 Data model design	Definition of the data model, logical and physical	Definition of tables - Attributes (type and domain) - Indexes
Implementation phase 2: Data analysis to detect nonconformities		
2.1 Design and validation of data analysis rules	Allow universal and automated control of taxpayer obligations	- Definition of rules for detecting nonconformities and noncompliance situations - Implementation of analysis and control algorithms - Detection of declarative payment and registration nonconformities
2.2 Definition of outputs and documents to be issued	Definition of detection algorithm outputs	- Definition of documents - Online availability of issued documents
Implementation phase 3: Electronic document signature and generation system		
3.1 Electronic document generation and management system	Dematerialize and automate processes and ensure authenticity of documents	- Generation of all internal procedures' documents - Generation of all communications with taxpayers - Electronic signature functionality
3.2 Communication system and electronic notifications	Dematerialize and automate communications with taxpayers	- Issue of documents - Interface with taxpayers and provision of an electronic mailbox - Interface with all systems
Implementation phase 4: Voluntary compliance support system		
4.1 Alert system before the end of deadlines for compliance with legal obligations	Support taxpayers and prevent default and noncompliance	- Information to taxpayers of detected nonconformities - Design of documents - Shipping through available channels - Sending automation
4.2 Communication interface and receipt of information from taxpayers	Using information and interaction to promote voluntary compliance	- Consultation of documents and information provided by the tax administration - Possibility for taxpayers to justify the divergence or send additional returns for regularization
4.3 Nonconformity analysis and treatment procedure management system	Internal automated nonconformity processing system	- Analysis of taxpayer responses - Completion of noncompliance procedures - Processing of additional or corrective settlements
Implementation phase 5: Automated audit system		
5.1 Automating the phases of the audit procedure	Correct all tax evasion situations detected by the system	- Opening of audits - Generation of all documents - Interaction with taxpayers and internal services
5.2 Additional settlement system	Missing tax assessment	- Treatment of additional returns - Treatment of official declarations

System description	Goals	Functionalities
		- Issuance of additional settlements
Implementation phase 6: Sanctioning and coercive systems		
6.1 Administrative sanctioning procedures management systems	Automation of processes for applying sanctions	- Opening of processes - Issue of documents - Automated process management
6.2 Criminal investigation system	Partial automation of criminal investigation	- Opening of processes - Automated management of processes (such as in case of nonpayment of VAT)
6.3 Enforcement collection system	Partial automation of enforced collection	- Opening and management of processes - Communications with taxpayers - Automating credit pledges
Implementation phase 7: Other		
7.1 Prefilling VAT returns	Filling automation	- Generation of statements - Validation by taxpayers - Automating official settlements
7.2 Other data collection and analysis	Expand automated control	- Transport documents - Inventory data - Accounts data - Financial data

References

Ainsworth, Richard T. 2008. *"*Electronic Tax Fraud—Are There 'Sales Zappers' in Japan?" Boston University School of Law & Economics Paper No. 08-31, The Social Science Research Network Electronic Paper Collection, Rochester, NY. http://ssrn.com/abstract_id=1290627.

Alonso, Cristian, Ledys Feliz, Patricia Gil, and Miguel Pecho. 2021. "Enhancing Tax Compliance in the Dominican Republic Through Risk-Based VAT Invoice Management." IMF Working Paper 21/231, International Monetary Fund, Washington, DC.

Australian Tax Office. Illegal phoenix activity. https://www.ato.gov.au/General/The-fight-against-tax-crime/Our-focus/Illegal-phoenix-activity/

Betts, Susan. 2022. "Revenue Administration Compliance Risk Management Framework to Drive Revenue Performance." IMF Technical Note and Manual 2022/005, Fiscal Affairs Department, International Monetary Fund, Washington, DC. https://www.imf.org/en/Publications/TNM/Issues/2022/08/26/Revenue-Administration-Compliance-Risk-Management-Overarching-Framework-to-Drive-Revenue-520479.

Bomer, Albert, and Menno Griffioen. 2022. "The Future of VAT Is Digital: Perspective European Tax Administrations." NLFiscal Foundation. https://research.tilburguniversity.edu/en/publications/de-toekomst-van-de-btw-is-digitaal-perspectief-belastingplichtige.

Brondolo, John D., Annette Chooi, Trevor Schloss, and Anthony Siouclis. 2022. "Compliance Risk Management: Developing Compliance Improvement Plans." IMF Technical Note and Manual 2022/001, International Monetary Fund, Washington, DC. https://www.imf.org/en/Publications/TNM/Issues/2022/03/18/Compliance-Risk-Management-Developing-Compliance-Improvement-Plans-515263.

Casey, Peter, and Patricio Castro. 2015. "Electronic Fiscal Devices (EFDs): An Empirical Study of Their Impact on Taxpayer Compliance and Administrative Efficiency." IMF Working Paper 15/73, International Monetary Fund, Washington, DC. https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Electronic-Fiscal-Devices-EFDs-An-Empirical-Study-of-their-Impact-on-Taxpayer-Compliance-and-42820.

European Commission, Directorate-General for Taxation and Customs Union, Giacomo Luchetta, Enrico Giannotti, Stephen Dale, et al. 2022. *VAT in the Digital Age: Final Report, Volume 1: Digital Reporting Requirements.* Luxembourg: Publications Office of the European Union. https://data.europa.eu/doi/10.2778/541384.

Fenochietto, Ricardo, and Juan Carlos Benítez. 2021. "Encouraging Formal Invoicing and Reducing the VAT Impact on Low-Income Individuals." IMF Working Paper 21/40, International Monetary Fund, Washington, DC. https://www.imf.org/en/Publications/WP/Issues/2021/02/19/Encouraging-Formal-Invoicing-and-Reducing-the-VAT-Impact-on-Low-Income-individuals-50079.

Feria, Rita de la, and Maria Amparo Grau-Ruiz. 2022.. "The Robotisation of Tax Administration." In *Interactive Robotics: Legal, Ethical, Social and Economic Aspects,* edited by Maria Amparo Grau-Ruiz. New York. Springer Nature. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4045621.

International Chamber of Commerce. 2020. "ICC Continuous Transaction Control (CTCs) Practice Principles." https://iccwbo.org/publication/icc-continuous-transaction-control-ctcs-practice-principles/.

Intra-European Organisation of Tax Administrations (IOTA). 2018. *Impact of Digitalisation on the Transformation of Tax Administrations. Intra-European Organization of Tax Administrations*. Budapest, Hungary: IOTA. https://www.iota-tax.org/publication/impact-digitalisation-transformation-tax-administrations-0.

Koch, Bruno. 2019. "The E-invoicing Journey 2019–2025." Billentis. https://www.billentis.com/The_einvoicing_journey_2019-2025.pdf.

Medina, Leandro, and Friedrich Schneider. 2018. "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?" IMF Working Paper 18/17, International Monetary Fund, Washington, DC. https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583.

Naritomi, Joana. 2019. "Consumers as Tax Auditors." *American Economic Review* 109 (9): 3031–72. https://eprints.lse.ac.uk/101538/1/Consumers_as_tax_auditors.pdf.

Organisation for Economic Co-operation and Development (OECD). 2004. "Compliance Risk Management: Managing and Improving Tax Compliance." Guidance Note, Centre for Tax Policy and Administration, OECD, Paris. https://www.oecd.org/tax/administration/33818656.pdf.

Organisation for Economic Co-operation and Development (OECD). 2005. "Guidance on Tax Compliance for Business and Accounting Software." Guidance Note, Centre for Tax Policy and Administration, OECD, Paris. https://www.oecd.org/tax/administration/34910263.pdf.

Organisation for Economic Co-operation and Development (OECD). 2010a. "Guidance for the Standard Audit File—Tax, Version 2.0." OECD, Paris. https://www.oecd.org/ctp/latestdocuments/133/, and https://www.oecd.org/tax/administration/45167181.pdf.

Organisation for Economic Co-operation and Development (OECD). 2010b. "Tax Compliance and Tax Accounting Systems." Information Note, Centre for Tax Policy and Administration, OECD, Paris. https://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/45045662.pdf.

Organisation for Economic Co-operation and Development (OECD). 2010c. "Guidance for the Standard Audit File—Tax Version 2.0." Centre for Tax Policy and Administration. https://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/45045602.pdf.

Organisation for Economic Co-operation and Development (OECD). 2010d. "Guidance and Specifications for Tax Compliance of Business and Accounting Software." Guidance Note, Centre for Tax Policy and Administration, OECD, Paris. https://www.oecd.org/ctp/administration/45045404.pdf.

Organisation for Economic Co-operation and Development (OECD). 2013. "Electronic Sales Suppression: A Threat to Tax Revenues." OECD, Paris. https://www.oecd.org/ctp/crime/ElectronicSalesSupression.pdf.

Organisation for Economic Co-operation and Development (OECD). 2017. "*Fighting Tax Crime: The Ten Global Principles*." Paris: OECD Publishing. https://doi.org/10.1787/63530cd2-en.

Organisation for Economic Co-operation and Development (OECD). 2019a. *Tax Policy Reforms 2019: OECD and Selected Partner Economies.* Paris: OECD Publishing. https://read.oecd-ilibrary.org/taxation/tax-policy-reforms-2019_da56c295-en#page80.

Organisation for Economic Co-operation and Development (OECD). 2019b. "Implementing Online Cash Registers: Benefits, Considerations and Guidance." OECD, Paris.https://www.oecd.org/ctp/implementing-online-cash-registers-benefits-considerations-and-guidance.htm.

Organisation for Economic Co-operation and Development (OECD). 2020a. "Tax Administration 3.0: The Digital Transformation of Tax Administration." OECD, Paris. https://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm.

Organisation for Economic Co-operation and Development (OECD). 2020b. "Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues." OECD, Paris. https://doi.org/10.1787/152def2d-en.

Organisation for Economic Co-operation and Development (OECD). 2020c. "Tax Crime Investigation Maturity Model." OECD, Paris. http://www.oecd.org/tax/crime/tax-crime-investigation-maturity-model.htm.

Organisation for Economic Co-operation and Development (OECD). 2021. "Digital Transformation Maturity Model." Forum on Tax Administration, OECD, Paris. www.oecd.org/tax/forum-on-tax-administration/publications-and-products/digital-transformation-maturity-model.htm.

Organisation for Economic Co-operation and Development (OECD). 2022a. "Tax Policy Reforms 2022: OECD and Selected Partner Economies." OECD, Paris. https://doi.org/10.1787/067c593d-en.

Organisation for Economic Co-operation and Development (OECD). 2022b. "Tax Administration 3.0 and Electronic Invoicing: Initial Findings." OECD Forum on Tax Administration, OECD, Paris. https://doi.org/10.1787/2ffc88ed-en.

Pagero. 2022. *Time to Get Ready for E-invoicing and CTC Mandates*. Gothenburg, Switzerland: Pagero. https://www.pagero.com/guides-and-reports/e-invoicing-compliance-e-book/.

Pires, José Maria. 2014. "Tools at the Service of Optimization of Resources, Processes and Decision-Making." In *Tools at the Service of Optimization of Resources, Processes and Decision-Making*. Centro Interamericano de Administraciones Tributarias. CIAT Technical Conference, Santiago de Compostela, Spain, October 6 to 9, 2014) / 2014. https://biblioteca.ciat.org/opac/book/5467.

Pomeranz, Dina. 2013. "No Taxation Without Information: Deterrence and Self-Enforcement in the Value Added Tax." NBER Working Paper 19199, National Bureau of Economic Research, Cambridge, MA. http://www.nber.org/papers/w19199.

Saulnier, Jérôme, and Maria Mercedes Garcia Munoz. 2021. *"Fair and Simpler Taxation Supporting the Recovery Strategy—Ways to Improve Exchange of Information and Compliance to Reduce the VAT Gap. European added value assessment."* European Parliamentary Research Service. https://www.europarl.europa.eu/RegData/etudes/STUD/2021/694223/EPRS_STU(2021)694223_EN.pdf

Sovos. 2020. "Trends in Continuous Global VAT Compliance, 11th edition." White paper. https://sovos.com/content-library/vat/sovos-global-vat-compliance-trends-2020/.

Sovos. 2022. "Trends 13th edition 2022" https://sovos.com/content-library/vat/sovos-global-vat-compliance-trends-2022/.

Summitto. 2021. "The Relationship Between Real-Time Reporting and E-invoicing." Summitto (blog), May 27. https://blog.summitto.com/posts/the_relationship_between_real_time_reporting_and_e_invoicing/.

Tot, Alenka, and Kristina Detelj. 2014. "Implementation of Cash Transaction Fiscalization Procedure in Businesses: Case of Croatia." Paper presented at the Central European Conference on Information and Intelligent Systems, Varaždin, Croatia, September 17-19. https://www.proquest.com/openview/fdcccec7537043de9dc6ab03d2ad6b99/1?pq-origsite=gscholar&cbl=1986354.