Tax administration is going digital:
Understanding the challenges and opportunities

The digital age is rapidly transforming the relationship between tax authorities and taxpayers. Driven by a desire for more revenue, greater efficiency and improved compliance in an atmosphere of shrinking resources, tax authorities are increasingly relying on digital tax data gathering and analysis – using digital platforms to facilitate real-time or near real-time collection and assessment of taxpayer data.

This move toward tax “digitization” is allowing tax authorities to collect tax data in real time or near real time; they can then use the information to respond quickly and in more targeted ways to perceived compliance risks. Digitization is, in some cases, allowing taxpayer information to be cross-referenced and shared among governments and agencies. Businesses with dated systems or those that are not able to adapt quickly may face increased risk, unexpected costs and compliance challenges to which they are not prepared to respond.

Some countries are leading the digital revolution, others are forming a second wave and still others are years away from embracing digitization. Brazil, for example, has been implementing a multilayered tax digitization project (called SPED) since 2006, with a goal of having all phases operational by 2017. The United States, in contrast, is not as far along in its tax digitization efforts (see the chart at the end of this article for a comparison of digitization efforts in key Americas countries).
**What’s changing**

As countries move toward digitizing their tax administration, their efforts can often follow a similar pattern, aligning with different levels of digitization (see Figure 1). Of course, the move to digitization is not necessarily linear, nor should higher levels of digitization be viewed as the ultimate goal of either taxpayers or tax authorities. The graphic is merely intended to provide an easy-to-digest overview of the vast spectrum of digitization efforts.

**Figure 1. Levels of digitization**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate entities required or have the option to use a standardized electronic form for filing tax returns. Other income data (e.g., payroll, financial) filed electronically and matched annually.</td>
<td>Corporate entities required to submit accounting or other source data to support filings (invoices, trial balances, etc.) in a defined electronic format at a defined frequency. Additions and changes at this level occur frequently.</td>
<td>Corporate entities required to submit additional accounting and source data, government accesses additional data (bank statements). Government begins to match data across tax types, potentially across taxpayers and jurisdictions in real time or near real time.</td>
<td>Corporate entities’ Level 2 data is analyzed by government entities and cross-checked to filings in real time or near real time to prevent fraud, unintended errors, and to map the geographic economic ecosystem. Governments send taxpayers electronic audit assessments with a limited window to respond.</td>
<td>Government entities use submitted data from corporate entities to assess tax without the need for tax forms. Taxpayers have a limited window of time to audit government-calculated tax.</td>
</tr>
</tbody>
</table>

*Note that not all governments collect the same information or treat it the same under this model. For example, a country might be at Level 1 for certain data, but at Level 3 for other data. Further, the move to digitization is not necessarily linear, nor should higher levels of digitization be viewed as the ultimate goal of either taxpayers or tax authorities.*
Timing

Digitization is accelerating the timing of tax reporting and filing obligations for businesses. Many governments are beginning to expect data in real time or near real time, often collecting it directly from taxpayers’ own systems, changing how and how often businesses must collect, format and report tax information. A company’s ability to analyze data and respond quickly to tax determinations will become increasingly important in this fast-paced digital world.

Value-added taxes (VAT) and goods and services taxes (GST) are often among the first taxes in a country to be fully digitized. In Brazil, for example, companies selling products in that market must send each invoice electronically to the government for validation before shipping goods, and companies purchasing goods in Brazil must check the electronic invoice with the government before receiving them. In Argentina, taxpayers have been required to submit VAT returns directly through the tax authority’s web page since July 2015.

Technologies that enable VAT and GST digitization will likely, sooner or later, enable business income tax systems as well. Brazil again provides an example of this process as electronic submissions support that country’s consumption tax and income tax systems.

Analytics

The increasing reliance on the electronic submission of tax, accounting and other company data has also allowed for the growth of another hallmark of the digital tax age — the use of data analytics and data matching to target compliance and audit initiatives.

Tax authorities are uncovering complex business relationships, reflected in the data companies submit, that they then use to trigger audits or stop the payment of refunds. In Mexico, sales transactions involving companies on the government’s “black list” — a public list of individuals and companies with alleged tax violations or debts — trigger additional data requirements. VAT invoices are reconciled with bank account information and data feeds sent to the authorities about each sale. Product classification and VAT treatment of taxpayers using similar suppliers is compared. VAT return information is cross-referenced with sales amounts claimed on income tax returns to check for consistency.

Automation

Automation and process standardization are cornerstones of digitization. The requirement that data be submitted in standard formats facilitates tax authorities’ expanded use of tax, accounting and other source data for compliance purposes. Mexico, for example, relies on the advanced use of automation to drive compliance and audit activity. Digital tax receipts from electronic billing in Mexico are reconciled with a taxpayer’s accounting records, and taxpayers are selected for income tax and VAT inspection based on digital information. Audits are conducted electronically.

In Argentina, the tax authority’s online portal is integrated with other online government service tools, including Customs, the Central Bank and the Secretary of Commerce. Some taxpayers involved in foreign currency transactions are automatically subjected to electronic tax audits. The tax authority submits the audit request via email, including a link to the tax authority’s web page, where taxpayer responses are submitted.

In Brazil, the SPED interfaces permit a flow of information among different auditing authorities at the federal and state levels, which is then leveraged for tax compliance purposes. The system has allowed the Brazilian tax authorities to access a greater volume of taxpayer information more rapidly and even issue penalties in real time or near real time.

Brazil emerges as a leader in tax digitization

Brazil illustrates where other countries may soon be heading:

- Brazil’s digital bookkeeping system, SPED, entails several different reporting arms, among them an annual digital tax accounting bookkeeping report (called ECD) containing information such as the general ledger, all tax accounting information and the tax accounting plan. It also includes an annual income tax report (ECF).

- The Brazilian tax authority determines a taxpayer’s income tax obligation based on the ECD, and companies have a limited window to challenge the assessment.

- Both the assessed value and the number of audits have increased under SPED, as have tax collections. The average value of an audit rose to R$9 million in 2013 from R$6.2 million in 2012, and the number of audits rose 19.13% from 2012 to 2013. Since 2010, there has been a 12.46% average increase in total federal taxes collected per year. Digitization has allowed for higher tax collections without raising the tax rate by increasing the number of taxpayers in the system.

- Some of the files companies submit to the Brazilian tax authority are reviewed, and penalties issued, in real time or near real time.

- The most complex aspect of SPED (eSocial) goes into effect in September 2016. eSocial requires companies to file electronic books with payroll information. Many companies are looking to third parties to help them manage eSocial reporting.

- Companies operating in Brazil need to manage these ongoing activities with an approach that can scale to high volumes of invoices and meet SPED’s reporting requirements.
Tax authorities’ use of data analytics for audit and compliance purposes is likely to expand, fueled by the increase in the amount of tax data available and the frequency of reporting under tax digitization.

Already, some countries have begun using agreements with other countries to enhance their taxpayer profiles. In Mexico, taxpayer information is exchanged with tax authorities from treaty partners and countries with exchange of information agreements. Laws allow Mexican tax administrators to collaborate with other Mexican government agencies for tax data collection.

The push for global tax transparency will place a great deal more responsibility on companies, which will soon be required to produce large volumes of data in new formats. One potential source of taxpayer information will be country-by-country (CbC) reports filed by large multinational corporations (MNCs). The reporting initiative, part of the Organisation for Economic Co-operation and Development’s (OECD) Base Erosion and Profit Shifting (BEPS) project, applies to MNCs with aggregate annual revenue of more than €750m.

Under the OECD model, which many countries are adopting, companies use a three-tier framework for providing information on global allocation of income, economic activity and intercompany pricing across all of their global operations. Companies generally file the CbC report with the tax authority in the home country of the MNC group’s parent company and the report is automatically shared with tax authorities in other relevant countries under government information exchange mechanisms. The first CbC reports will cover fiscal years beginning after January 1, 2016.

### Business impact

The data businesses are being asked to submit under tax digitization reaches far beyond tax forms, and often includes accounting and sales data. Legacy systems and processes may not be able to support these and other government requirements. Challenges may include:

- Lack of data available in the required formats
- Difficulty submitting data
- Inefficient processes for transforming data
- Lack of process support for new data requirements
- Outdated tax operating models
- More frequent need for more comprehensive analytics, in advance of submission to tax authorities
- Inability to respond to audit notices in a timely or effective manner
- Inability to respond quickly when there is disagreement with a tax assessment

A detailed review and possible reengineering of the processes companies use to record and report their data may be required. Businesses that outsource these and related functions need to make sure that their third-party solutions are flexible and updated frequently to reflect evolving digital requirements as tax authorities ramp up their digital platforms.

Businesses will also experience a financial impact as tax administration is digitized – more complex data requirements, delayed refunds, construction of new systems, retooling of processes and more time spent on compliance could negatively affect cash flow. Data security will also be a major concern as governments share data and BEPS reports.

### Meeting the challenge

As tax authorities move at varying speeds toward greater digitization of tax information, businesses need to develop a detailed understanding of digital tax requirements in their markets. Following developments closely and engaging in conversations can help businesses better meet the challenges as governments expand their digital capabilities.

They must also determine whether their tax function is able to meet digital data and filing obligations in operating jurisdictions and is prepared to defend audits in real time or near real time. Businesses will need to implement digital solutions that can work within and across countries and that can respond to evolving compliance and controversy requirements. They should explore the use of real-time data analytics for tax planning and compliance purposes, to measure and mitigate risk, to better target controversy interventions and resolve issues as they occur.

Businesses should consider what investment may be needed to respond to the increasing demand for digital tax information and how to manage the risks inherent in the expansion of electronic data submission. Taking the time to understand these issues and explore forward-looking solutions today – and conveying these options to policymakers – may help avoid more costly and time-consuming remedies tomorrow.
## For more information

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathy Koch</td>
<td>EY Americas Tax Policy Leader</td>
<td><a href="mailto:cathy.koch@ey.com">cathy.koch@ey.com</a></td>
</tr>
<tr>
<td>Carolyn Bailey</td>
<td>EY Americas Digital Government Tax Transformation Leader - Latin America</td>
<td><a href="mailto:carolyn.bailey@ey.com">carolyn.bailey@ey.com</a></td>
</tr>
<tr>
<td>Daniella Arbulu Diaz</td>
<td>Transaction Tax Services - Peru</td>
<td><a href="mailto:daniella.arbulu@pe.ey.com">daniella.arbulu@pe.ey.com</a></td>
</tr>
<tr>
<td>Gustavo Consoli</td>
<td>Business Tax Advisory - Argentina</td>
<td><a href="mailto:gustavo.consolid@ar.ey.com">gustavo.consolid@ar.ey.com</a></td>
</tr>
<tr>
<td>David De La Torre</td>
<td>Tax Managing Partner - Peru</td>
<td><a href="mailto:david.de.la.torre@pe.ey.com">david.de.la.torre@pe.ey.com</a></td>
</tr>
<tr>
<td>Roberta Ezar</td>
<td>Tax Technology - Brazil</td>
<td><a href="mailto:roberta.ezar@br.ey.com">roberta.ezar@br.ey.com</a></td>
</tr>
<tr>
<td>Calafia Franco Jaramillo</td>
<td>Latin America Business Center - United States</td>
<td><a href="mailto:calafia.francojaramillo@ey.com">calafia.francojaramillo@ey.com</a></td>
</tr>
<tr>
<td>Frederico God</td>
<td>Business Tax Services Leader - Brazil</td>
<td><a href="mailto:frederico.h.god@br.ey.com">frederico.h.god@br.ey.com</a></td>
</tr>
<tr>
<td>Jorge Libreros Calderon</td>
<td>Tax Controversy and Risk Management - Mexico</td>
<td><a href="mailto:jorge.libreros@mx.ey.com">jorge.libreros@mx.ey.com</a></td>
</tr>
<tr>
<td>Fredy Mora</td>
<td>Business Tax Advisory - Colombia</td>
<td><a href="mailto:fedy.mora@co.ey.com">fedy.mora@co.ey.com</a></td>
</tr>
<tr>
<td>Frank Ng</td>
<td>Tax Controversy and Risk Management Services - United States</td>
<td><a href="mailto:frank.ng@ey.com">frank.ng@ey.com</a></td>
</tr>
<tr>
<td>Fred O’Riordan</td>
<td>Economics and Analytical Services Leader - Canada</td>
<td><a href="mailto:fred.r.oriodan@ca.ey.com">fred.r.oriodan@ca.ey.com</a></td>
</tr>
<tr>
<td>Juan Antonio Rivera Poblete</td>
<td>Global Compliance and Reporting - Chile</td>
<td><a href="mailto:juan.antonio.rivera@cl.ey.com">juan.antonio.rivera@cl.ey.com</a></td>
</tr>
<tr>
<td>Andres Valle</td>
<td>South America Region Tax Managing Partner</td>
<td><a href="mailto:andresm.valle@pe.ey.com">andresm.valle@pe.ey.com</a></td>
</tr>
<tr>
<td>Gary Zed</td>
<td>Tax Policy and Controversy Leader - Canada</td>
<td><a href="mailto:gary.zed@ca.ey.com">gary.zed@ca.ey.com</a></td>
</tr>
</tbody>
</table>
Table 1: Snapshot of tax digitization across the Americas

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate income tax</th>
<th>Automated information exchange</th>
<th>Use of e-invoicing</th>
<th>Use of data analytics/risk engines</th>
<th>Future state</th>
</tr>
</thead>
</table>
| Argentina| • Most tax returns are prepared using software provided by the tax administration and filed through the administration’s website  
• In FY15 some returns were filed by uploading tax information directly to the tax authorities’ webpage  
• Some pre-filled information is provided for business, individual and VAT filers, particularly withholding amounts  
• Online portal maintained for business, individual and VAT taxpayers, which is integrated with other online government tools and can be accessed by authorized representatives | • Taxpayer information exchanged with other government agencies | • Mandatory for most taxpayers since July 1, 2015 | • The tax administration uses data matching, but no public data is available on the types of risk engines or data analytics used | • Has recently prioritized the implementation of electronic tax audits as well as electronic issuance and storage of supporting documents |
Table 1: Snapshot of tax digitization across the Americas

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate income tax</th>
<th>Automated information exchange</th>
<th>Use of e-invoicing</th>
<th>Use of data analytics/risk engines</th>
<th>Future state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>E-filing required, including both accounting and tax records/books</td>
<td>Corporate income tax information exchanged among federal tax authorities; VAT tax books exchanged among federal and state tax authorities</td>
<td>Requires electronic accounting and tax bookkeeping, as well as e-invoicing</td>
<td>Taxpayers selected for inspection based on electronic information</td>
<td>Additional digital integration slated for 2016, including information on control and production of inventory and eSocial, which will involve consolidation and provision of tax, social security and labor obligations related to employees</td>
</tr>
<tr>
<td>Canada</td>
<td>E-filing required for all corporations with annual gross revenues more than C$1 million (with the exception of insurance corporations, non-resident corporations, corporations reporting in functional currency, and corporations that are exempt from tax payable under section 149 of the Income Tax Act)</td>
<td>Foreign Account Tax Compliance Act (FATCA) information for taxpayers available electronically</td>
<td>E-invoicing permitted, but not required</td>
<td>Used to assess risk, determine compliance activities and administer tax system</td>
<td>The Canada Revenue Agency (CRA) is a leader in e-service delivery, regularly adding additional e-forms and accepting additional taxpayer documents online</td>
</tr>
</tbody>
</table>

For the 2015 tax filing year 86% of corporation income tax returns were filed electronically.

The CRA has launched new online payment options for businesses and mobile apps to provide access to tax information and tax reminders to businesses.
### Table 1: Snapshot of tax digitization across the Americas

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate income tax</th>
<th>Automated information exchange</th>
<th>Use of e-invoicing</th>
<th>Use of data analytics/risk engines</th>
<th>Future state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>• Taxpayers able to file electronically (required beginning in 2017); e-filing available for all forms • E-payment available and encouraged with interest and fine reductions</td>
<td>• Automated information exchange with foreign tax authorities in early development, and is a current priority of the Chilean tax administration</td>
<td>• Mandatory e-invoicing being phased in from now through 2018, though the tax authority is not integrated into the issuance of the e-invoices • All authorized issuers of electronic tax documents are required to deliver electronic purchase and sales books to the tax authorities</td>
<td>• Massive data cross-reference used to assess risk, determine audit plans and gather statistical information</td>
<td>• Significant recent increase in funding and investment for tax administration with corresponding increase in audits and amounts collected; audit and collection growth likely to continue</td>
</tr>
<tr>
<td>Colombia</td>
<td>• E-filing mandatory for some taxpayers; limited pre-filled returns available • Online portal maintained where taxpayers can file returns; payments may be made online and through financial institutions • Tax assessments are not provided electronically and taxpayers cannot dispute assessments online</td>
<td>• Information exchanged with other government agencies; some institutions request information on an ongoing, systematic basis – others make requests about specific taxpayers or groups</td>
<td>• E-invoicing is permitted but used by only a few taxpayers • Regulations introduced to gradually increase the use of e-invoicing in FY16; additional regulations expected</td>
<td>• Risk engine and data matching techniques used, but capabilities are still in early development</td>
<td>• Government committed to developing a Technology National Plan by 2019</td>
</tr>
</tbody>
</table>
### Table 1: Snapshot of tax digitization across the Americas

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate income tax</th>
<th>Automated information exchange</th>
<th>Use of e-invoicing</th>
<th>Use of data analytics/risk engines</th>
<th>Future state</th>
</tr>
</thead>
</table>
| Mexico    | ▶ E-filing required; taxpayers must maintain and submit electronic accounting records for each transaction  
  ▶ Almost all tax obligations (returns, refunds, and information provision) conducted electronically  
  ▶ Must e-report relevant transactions such as financial derivatives, transfer pricing, etc.  
  ▶ Must e-file amended returns  | ▶ Taxpayer information exchanged with tax authorities from countries with treaties and exchange of information agreements  
  ▶ Taxpayers must maintain electronic accounting records, and monthly accounting data must be submitted electronically  | ▶ E-invoicing, with validation by the tax administration, is mandatory  
  ▶ Taxpayers selected for inspection based on digital/electronic information  | ▶ Digital tax receipts from e-billing reconciled with accounting records  
  ▶ Audits can be conducted electronically  | ▶ Pre-filled individual and small business taxpayer VAT returns forthcoming  
  ▶ Committed to implementing the OECD’s Automatic Exchange of Information form by the end of 2017  
  ▶ Specific parties obliged to file OECD BEPS country-by-country report |
| Panama    | ▶ E-filing mandatory  
  ▶ Amended returns may be e-filed  | ▶ N/A  | ▶ No at-source capture of e-invoices by tax administration  | ▶ Data matching techniques not currently used  | ▶ Some have suggested efficiencies could be increased by moving toward more digital and fewer face-to-face interactions |


### Table 1: Snapshot of tax digitization across the Americas

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate income tax</th>
<th>Automated information exchange</th>
<th>Use of e-invoicing</th>
<th>Use of data analytics/risk engines</th>
<th>Future state</th>
</tr>
</thead>
</table>
| Peru      | • Tax returns may be e-filed through the tax administration’s website  
           • Taxpayers that have a bank account linked to their tax filings can make tax payments electronically  
           • Taxpayer information exchanged with other Peruvian government agencies and with a few tax authorities from countries with treaties (not necessarily electronically)  
           • E-invoicing has been mandatory since 2014 for certain taxpayers designated by the tax administration  
           • Most taxpayers are required to file purchase and sales records electronically  
           • Selected taxpayers are required to file certain monthly accounting data electronically  
           • Number of such taxpayers is expected to grow  
           • Online information used to select taxpayers for audit, compliance risk, to identify deviations in tax liabilities and perform audits more efficiently  
           • No evidence of data analytics engines within the tax audit  
           • Technology is expected to play a larger role in tax compliance efforts | | | | | |
| United States | • E-filing required for most large businesses  
               • Taxpayers required to use electronic system to submit monthly tax payments and withholding  
               • Taxpayer information exchanged with tax authorities from countries with treaties and exchange of information agreements  
               • Automatic information exchange expanded to include FATCA  
               • N/A. Because the United States does not have a VAT, no invoice reporting system is maintained  
               • Tax administrators would generally only request invoices as part of an in-depth federal income tax audit  
               • Data analytics used for compliance risk and audit selection  
               • Aggregated tax filing details from third parties monitored to combat identity fraud  
               • Exploring possibility of pre-filling tax returns; taxpayer self-management of accounts  
               • Non-tax data (e.g., Affordable Care Act) reported to government agencies to determine tax liability | | | | |
About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

About the EY Center for Tax Policy

The EY Center for Tax Policy is a team of Ernst & Young LLP National Tax professionals who identify marketplace trends, analyze proposed tax legislation, and report on implications for various types of taxpayers.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

© 2016 Ernst & Young LLP.
All Rights Reserved.

EYG no. YY3818
1603-1899974
ED 0616

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice.