Running the numbers

How data analytics is transforming tax administration

A version of this article was originally published in Bloomberg BNA's Daily Tax Report.

Driven by revenue pressures and shrinking headcounts, tax authorities in the Americas and elsewhere are increasingly relying on digital methods to collect taxpayer data and administer their tax systems. Amid increasing demands for tax transparency by governments and supranational organizations, many tax authorities are building sophisticated data-gathering platforms that enable matching and sharing of taxpayer data. They are then using data analytics to mine this data to help increase tax collections, target compliance initiatives and improve overall efficiency.

Practically speaking, this means an unprecedented amount of taxpayer information is flowing between governments and businesses. This data is being analyzed and used in new and more expansive ways. The Organisation for Economic Co-operation and Development's country-by-country (CbC) reporting requirements mandate increased data collection and disclosure. With several countries, including the United States, having adopted the CbC requirements and many more countries soon to follow, the volume and pace of data collection and analysis will only continue to grow.

In this environment, companies, and especially their tax and finance functions, need to know what information they are expected to share and have confidence that it is accurate, secure and formatted correctly. Data is the foundation upon which this new digital tax world is being built, and the quality of the outcomes that result will depend on the quality of the data that goes in. To match what governments are doing and stay one step ahead, tax departments must look at the tax function through the lens of big data and data analytics.

Big data refers to the increasing volume of data now available, as well as its variety and the speed at which it can be processed. Analytics is the means for extracting value from this data — the tool that generates actionable insights.

How tax authorities are using data analytics

Many tax authorities pull together data from a variety of sources to develop a more complete picture of companies' tax profiles. Companies are increasingly being asked to submit client invoices, statements of accounts, customs declarations, vendor invoices and bank records, all in formats specified by the government — and on an accelerated schedule (often in real or near-real time). Moreover, the formats in which these data are submitted may differ from how companies track and collect the data themselves.

Tax authorities are using real-time or near real-time data analytics engines to validate invoices and flag discrepancies, verify sales and purchase declarations, verify payroll and withholding declarations and compare data across jurisdictions and taxpayers. Based on these analyses, tax authorities make determinations, including tax and audit assessments. While countries such as China, France and Russia have advanced digital authorities, some of the other leaders in digital tax are in the Americas, and we focus on them here.

The tax and finance departments can deliver value in this new era of digital tax by embracing enterprise initiatives and transformations that facilitate enhanced data management — and using data analytics to manage risk, control costs and drive business decisions.

Leaders

Mexico

Examples of information required: digital tax receipts from electronic billing, value-added tax (VAT) invoices, electronic accounting records, transfer pricing, financial derivatives and tax returns

Frequency of submission: real time, daily, monthly, quarterly or yearly depending on type of information requested

The Mexican tax authorities have a program called "deep vigilance" through which they review taxpayers' prior tax year information to determine if there has been any reduction in tax obligations or omission of tax information. Tax authorities also compare data against other taxpayers in the same industry or region to verify the taxpayer's effective corporate tax rate, considering factors such as its size, industry, region and tax classification (large vs. regular taxpayer). A significant number of audits arise from the program — in fact, in 2015, Mexican tax authorities collected MXN140m from audits, up from MXN98m in 2010. And the average assessment per audit during that same time period grew from MXN109m to MXN192m.

Brazil

Examples of information required: digital tax accounting bookkeeping, electronic books with payroll information, VAT tax books, social contribution tax books and tax returns

Frequency of submission: real time, daily, monthly, quarterly or yearly depending on type of information requested

Tax audits in Brazil are based on wide cross-checking among tax obligations and are focused on large taxpayers (those with revenues over BRL78m), large representative economic sectors (such as agriculture and related services) and taxpayers suspected of illegal tax activity.

While large taxpayers make up only .01% of registered taxpayers in the country, this group paid 61% of total tax revenue in 2015. Large taxpayers also pay the bulk of audit assessments (77%), collection of which continues to steadily increase (up from BRL99b in 2010 to BRL121b in 2015), with the 2015 average penalty value at BRL12m.

Canada

Examples of information required: tax returns and supporting documentation (paper or digital format)

Frequency of submission: varies depending on type of information required

The Canada Revenue Agency (CRA), like other tax authorities highlighted in this section, collects large amounts of taxpayer data and uses data analytics to gain "better business intelligence about taxpayer behavior" and support its compliance and collection efforts. In a recent report to Parliament, the CRA identified some examples of how it uses data analysis, including:

- To predict the assessed value of certain unfiled returns and target follow-up action (resulting in CAD127m in additional assessments in the 2013–14 tax year)
- To identify accounts that would "self-resolve," allowing the CRA to focus collection efforts on higher-risk accounts
- To predict which installment-payment taxpayers were likely to make payments; the CRA was then able to better target follow-up phone calls (resulting in CAD31m in additional negotiated payments in the 2013–14 tax year)

The CRA uses available business intelligence, including mandatory reporting of electronic funds transfers, to identify high-risk cases and emerging offshore arrangements through its Offshore Compliance Division. It also recently implemented an automated tool that links taxpayer information from its various databases and applies risk algorithms to calculate an automatic risk assessment for all "large files."

Up and coming

Chile

Examples of information required: e-invoices, electronic purchase and sales books, tax returns and some tax forms

Frequency of submission: varies

In Chile, the local taxing authority has been proactive in its use of technology to enhance tax compliance. Significant investments are being made in technology, including new equipment and software, as well as improvements to the platform used for electronic invoicing. These investments have supported increases in value-added tax (VAT) audit rates (50,000 more VAT audits between 2013 and 2014) and revenue from VAT audits (up from CLP158m in 2013 to CLP800m in 2014). To help keep this momentum going, the government expects to continue to invest in and expand on its digital efforts.

United States

Examples of types of information required: monthly tax payments, withholding and tax returns

Frequency of submission: varies; tax returns and most third-party information returns filed annually, with the majority of third-party information returns filed electronically. These information returns include items such as Form W-2 reporting (wage and tax statement) and Schedule K-1 (partnership, S corporation and estate/trust distributions), among others.

While the United States uses data analytics for compliance risk and audit selection, it lags behind other countries in terms of overall digital tax administration. The US Internal Revenue Service (IRS) does, however, have an enforcement program (Automated Underreporter Program) to electronically match data from information returns against individual taxpayer accounts. After years of budget cuts and staffing shortfalls, audit rates are declining (1 million returns audited in 2014 compared to 2 million in 2013), although the amount of revenue collected from audits and document matching during this same period increased (US$18b in 2014 compared to US$15b in 2013).

The IRS is encouraging taxpayers to use online resources as an alternative to staffed interaction. Recent IRS publications outline goals for the agency that align with a more digital model. Examples include:

- A "web-first" service strategy whereby taxpayers can receive tax information and services online
- Tools that allow the IRS to match tax returns with information returns
- Increased use of data analytics
- Better digital tools that allow taxpayers to manage accounts, filings, correspondence, payments and data, as well as identify issues and resolve errors
- Service-wide electronic records management processes
- Systems, software and governance to facilitate secure transactions and data submissions
- Strategic relations and interactions with partners such as employers, payroll providers, software providers and state and local governments

Other Americas countries increasing investment in digital tax data collection and analytics

- **Argentina** has enacted several resolutions implementing digital tax measures such as requiring electronic invoicing and enabling the tax authority to undertake electronic inspections.
- **Colombia** requires its taxpayers to submit an annual report providing information on every third party with whom a taxpayer engaged in a transaction. The report requires information such as the parties' tax ID numbers, addresses and the transaction amount. The tax authorities are then able to match the information reported by the parties and identify any discrepancies. And since FY 2012, corporate taxpayers electronically submit financial information (i.e., assets, liabilities, revenues, deductions), which are then compiled to build the front page of the income tax return. Colombia has adopted e-invoicing and is currently in the process of enacting implementing regulations.
- **Peru** requires e-invoicing for many taxpayers and requires certain taxpayers to electronically submit monthly accounting data.

As interest in digital methods and analytics continues to grow, we would expect to see more countries investing in this area.

What it means for companies

Tax authorities' enhanced use of data analytics means that companies – and their tax and finance departments – need a shift in mindset around how they collect, store and analyze tax and financial data. Documents may be stored in various places, such as network shared drives, personal hard drives, external providers' systems, document management systems and emails. Adding to the challenge, the requested information may be spread across different functions and geographic locations. This can make it hard to find data when it's needed and know when that data has been collected or delivered. These challenges can be mitigated through development of a robust data management and analytics system.

The volume of requests and short response time for compliance means that companies need sophisticated data management and analytic capabilities that meet or exceed those used by tax authorities. They also need people familiar with these enhanced data requirements to develop and maintain those systems. Further, they must take proactive steps to create files that are "audit ready" when submitting requested information to tax authorities – particularly in this environment of increased transparency and information exchange.

Action steps

While companies can face significant challenges in modifying their data management and analytics capabilities to meet the requests and rapid turnaround times requested by tax authorities, it is critical that they face this challenge head on. We see forward-looking companies taking the following steps to develop a new approach to compliance in this digital environment:

- Performing detailed reviews of data requirements, processes and technologies that support digital tax authority requests across the globe
- Testing and reviewing submitted data to provide the company with visibility into what tax authorities are doing with the transmitted data – quantifying and mitigating risks as issues are found
- Developing multi-country data management and analytic capabilities to create efficiencies and provide real-time visibility into the transmitted data
- Shifting focus from traditional compliance activities to real time digital audit readiness activities – changing technologies, processes and people to support this shift
- Keeping abreast of legislative and regulatory changes affecting tax data collection and submission – and providing input to policymakers as appropriate

Conclusion

As tax authorities rely more on data to make compliance and audit determinations, and are increasingly sharing this data with tax authorities in other jurisdictions, companies will face risks and exposure if their people, processes and systems are dated or out of sync with government requirements and expectations.

The tax department has an opportunity to deliver value in this new era of digital tax by embracing enterprise initiatives and transformations that facilitate enhanced data management. Companies can realize this value by harnessing data analytics to manage risk, control costs, and inform communications and business decisions.

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The authors would like to thank Kathy Schatz-Guthrie and Barbara Kirchheimer for their contributions to this article.

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SCORE No. 02580-161US
CSG No. 1608-2011277 SE
ED None

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