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2017 Tax Analytics Trends

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Introduction

Futurology was never a science and with the year of unexpected events we've just had it would be very bold to make firm predictions. Nonetheless, looking at developments across the global tax landscape, at the direction of travel being taken by tax authorities and at the response of both multinational corporations and domestic taxpayers, it is reasonable to conclude that tax data analytics will continue to help shape the tax environment in the year ahead and beyond.

This non-exhaustive review examines some of the ways analytics is impacting the landscape and considers:

- The extent to which the **tax advisory market is blurring** as traditional demarcation between tax specialists, content providers and software vendors breaks down.
- The need to ramp up **the compliance culture** in multinational entities. The transparency agenda, the regulatory environment, corporate self-regulation and government actions are all driving an increased focus on compliance.
- The impact of **exponential technologies** in the tax compliance arena which will result in changes to the way tax departments and the tax authorities work, as well as the extent to, and ease with which, they can leverage data to drive actionable insights.
- The opportunities for leveraging **a hyper-connected world** and distributed systems and ledgers to maintain data integrity and improve data efficiency while managing down the costs of entry.
- How some forward-thinking tax authorities and governments are **showing the way** through the use of technology and improving revenue raising while phasing out tax returns as reportable information is collected in real time.
- How growing up with technology is affecting the **career expectations of millennials** and how, in the expanding 'gig economy', employers need to find ways to respond to millennials' expectations and capabilities and 'use them or lose them'.

Blurred market

The traditional tax compliance and advisory world has been inhabited by three types of provider with quite distinct market offerings. Although the providers cooperated and made some use of each other's products and services the boundaries between them have been distinct. The first type of provider is the professional service firm encompassing accountancy practices, law firms and niche tax advisory boutiques using their expertise in the interpretation and application of tax law and practice to advise clients on their compliance obligations and wider tax implications related to business operations. The second provider type is the aggregators and publishers of tax-relevant information. Their core offering was the corpus of tax legislation, tax case law and the published practices of tax authorities upon which the experts draw to provide advice to clients. Beyond the provision of tax-related information the publishers produced text books on specific tax disciplines typically engaging the services of one or more experts to write or edit the material. The third type of provider is the software companies that develop technology products to perform tax tasks. This started with stand-alone tools to perform personal and corporate income tax returns and to manage VAT compliance, and evolved to more integrated and flexible on-line platforms.

Increasingly varied technologies have allowed each type of provider to encroach into the other's areas of expertise with the professional service firms blurring the space between advisory services and providing technology tools, and the software developers using publicly available tax law to build search engines that rival the information hegemony traditionally enjoyed by the publishers. Both publishers and developers have started to develop advisory capabilities to enter into the valuable market traditionally dominated by the professional service firms while the firms themselves are refining their offerings using new technologies to move into the space occupied by publishers and developers as well as extending analytics-driven capability and services. Going forward, with the increase in the scope and availability of cognitive technologies it is reasonable to expect that we will soon see completely new entrants to this market, or possibly technology providers and advisors being by-passed as tax authorities provide both tooling and advisory services to improve taxpayer compliance.

Tax analytics implications

Interesting analytics use cases are emerging as the segmentation of the tax market becomes less distinct. Tax authorities are also taking advantage of new technologies, in particular analytics to better assess how compliant their taxpayers are, identify targets for their audit efforts and use predictive analytics to manage outstanding tax debts.

Professional service firms are increasingly either building their own analytics tools as point solutions for particular tax-sensitive questions – how do I ensure my travellers are compliant with tax and immigration policies? can I analyze monthly trends in book income, cash taxes and effective tax rates to help avoid surprises? how do I assess tax when there are millions of transactions? – or partnering with technology firms to co-develop solutions. Just as tax authorities such as Singapore are encouraging self-service solutions for taxpayers using cognitive computing platforms to answer taxpayer queries, so professional firms are investing in tax information portals as a means of socializing the use of their services with prospective clients.

More than ever, speed to market and agility are essential components of business success and longevity. As a result, Deloitte expects that the current phase of competition, as each type of provider begins to operate in the other's space, will be short lived. Increasingly it will be replaced by collaboration in the form of joint ventures and strategic partnerships as professional advisers, publishers and developers play to their strengths while leveraging each other's skills.

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Compliance culture

A variety of forces have combined to change the world of compliance. On the one hand the global financial crisis of 2008 put pressure on the immediate tax take in many jurisdictions focusing attention on tax collection. At the same time tax activists have generated considerable public awareness and debate around the strategies pursued by multinationals and by the very wealthy to manage their tax bills.

This has resulted in a variety of new laws and efforts at both national and international levels requiring greater transparency from corporate taxpayers in their financial reporting, clamping down on assets held overseas for tax purposes, and most significantly for large corporates the OECD's Base Erosion and Profit Shifting project. One feature of the new direct tax environment is a focus on transparency and data.

To some extent the direct tax world is catching up with indirect tax compliance in which the importance of data has been understood for many years, with authorities (such as Spain and Brazil) demanding monthly electronic submissions of transactional data.

Tax analytics implications

The OECD introduced the Standard Audit File for Tax (SAF-T) as an international standard for the communication of accounting data from taxpayers to tax authorities in 2005 and it is being adopted by a variety of European countries with local variations. SAF-T includes the captions found in a general ledger Chart of Accounts together with master files of transactional data for supplies and purchases, making the submissions particularly suitable for indirect tax data analytics which in turn yields very specific audit questions from the tax authorities.

In the direct tax arena, Country-by-Country Reporting (CbCR) of transfer pricing-related data is opening up the opportunity for more analytics by both the tax authorities and by the organizations which will be submitting data. Forward-thinking corporates have already been using tax data analytics for CbCR on their comparable 2015 numbers to gain insight and identify anomalies in their results which must either be corrected or would need to be explained if replicated in their reportable 2016 data in the event that the tax authorities raise inquiries.

As SAF-T becomes more widespread, as CbCR evolves and as ever more information is automatically shared between tax authorities, they will have a much fuller taxpayer picture than has historically been the case, and the BEPS objectives of reducing the asymmetry of information will be increasingly achieved.

The European Commission has proposed introducing public CbCR for multinationals active in the EU, and the United Kingdom has become the first country to legislate for the possibility of public CbCR. If applied this raises the interesting prospect of tax justice activists running analytics on the data reported by multinationals active in the UK.

Whether or not corporations are taking advantage of data analytics tools to get greater control over and insight into the information they will be reporting, this is clearly the direction that tax authorities are taking. In 2016 the OECD published "Advanced Analytics for Better Tax Administration" reporting on the challenges and opportunities for tax authorities to use analytics to improve their operations. And if economic nationalism does indeed become a more prevalent political theme, increased access to information will be an important asset in a government's tax collection armory.

From a corporate perspective, analytics offers the opportunity of assessing direct and indirect tax compliance reporting in advance of submitting returns to better manage exposures and the risk of audit or reputational damage.

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Exponential technologies

Exponential improvement in digital technologies is driving exponential innovation. As the rate of improvement accelerates, it is bringing rapid disruption across a wide range of knowledge-rich domains such as tax. In tandem with this technological disruption, tax authorities and accounting regulators are requiring increased transparency, mechanisms for the automatic sharing of tax information are coming into force, and politicians and the public are maintaining pressure on tax authorities in relation to the management and collection of tax. In response corporate income taxpayers and their advisors are looking to technology solutions to help them address the increasing compliance burden and mitigate the reputational risk associated with being seen as a bad corporate citizen.

In many cases tax authorities have gotten ahead of taxpayers in the use of tax data analytics. Typically for both parties, analytics has been used to gain insight into historic data so that, for example, the authorities can direct their audit efforts appropriately, and taxpayers can identify anomalies which may need to be explained and corrected for the future.

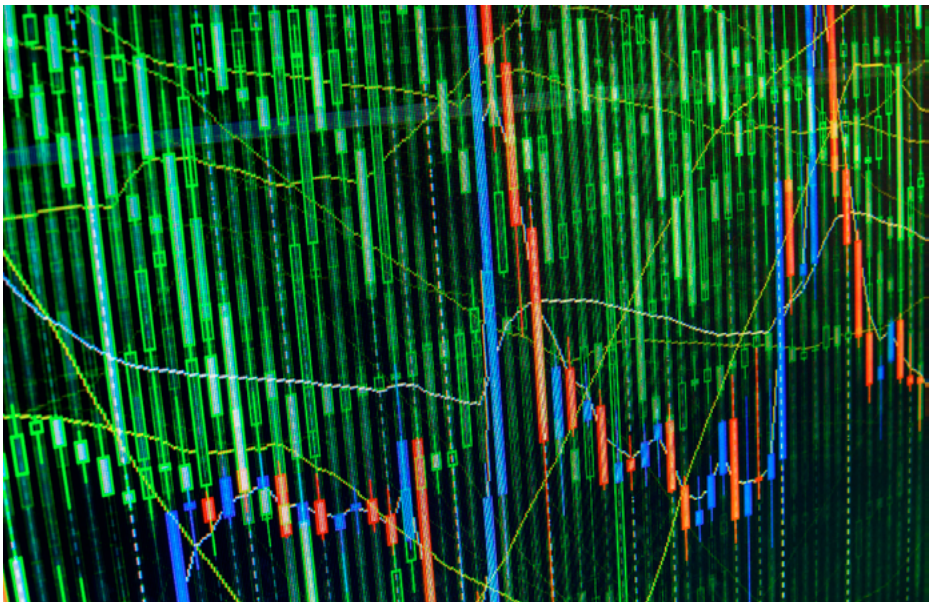
The next step for authorities, taxpayers and their advisors is to explore the use of more sophisticated deep learning, cognitive, and predictive data analytics. This level of analytics can facilitate compliance and assist professionals and their clients with commonly encountered questions. It also supports higher end tax work where artificial intelligence (AI) can enhance research and assist experts to focus on those sources of information best able to answer complex tax technical questions.

Tax analytics implications

Exponential technology that allows us to do more than ever before is already disrupting the work of tax professionals, but in many cases this is being used to reduce the amount of mundane and repetitive work and allow professionals to focus on what they do best – giving expert advice. Robotic process automation (RPA) will increasingly be used to automate repetitive tasks with a tax component such as invoice scanning and processing. That said, exponential technologies in tax have the potential for a wider impact than just tax data analytics, but they are expected to broaden the scope for analytics because they will both directly and indirectly contribute to an increase in the availability of data that is of sufficient quality and consistency to be used to drive the more sophisticated approaches.

Use cases for cognitive technology range from applications to help tax professionals analyze vast quantities of legislation, case law and tax authority practice for relevant material, to point solutions for example, to extract tax sensitive data from trust deeds or contracts so they can be correctly classified for compliance purposes.

Areas where exponential technologies and tax data analytics will more closely and immediately interact are use cases in which artificial intelligence is used to undertake tasks which were previously undertaken by tax professionals, such as identifying disallowable expenditure for corporate income tax purposes or misclassifications of employment related costs. There is also scope for cognitive and analytics technologies to interact when applied to user searches of tax technical databases and websites to provide additional guidance in the form of "Have you considered..." type questions. Cognitive technologies will progressively refine the scope and accuracy of search results, while deep learning and analytics could help identify use cases which are sufficiently frequent to merit building artificial intelligence solutions to reduce the level of human effort involved and improve the quality of results.



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Connected world

The widespread use of application programming interfaces (APIs) is a growth area in the tax software market giving both businesses and their tax advisors more choice in the tools they use.

Application programming interfaces (APIs) allow the creation of applications which access data and are becoming increasingly important in enabling data sharing. For example, the UK tax authority HMRC is responsible for more than two-thirds of all government transactions (1.24 billion per year across online, post and telephone). More than 1.1 billion of these are digital and three quarters of these are completed through an API using a third party product. National Australia Bank (NAB) is the first major Australian bank to launch an API developer portal to enhance the customer experience by allowing third party developers access to certain NAB datasets.

In Europe, while many countries face the challenges of getting their IT systems to speak to each other, Estonia (see Emerging leaders) has spent the last 20 years planning the move to digital government. Estonian citizens can now vote, file their taxes and receive a prescription for the pharmacy from a single website. This has been achieved at a relatively modest cost by building interfaces to allow data to be gathered from multiple sources through one central portal.

In the corporate environment, intra-group and group to tax authority APIs could be used to gather data for applications such as compliance reporting, global information gathering and country-by-country transfer pricing reporting. As an extension of this way of thinking, some organizations are exploring the use of Blockchain as a means to maintain and demonstrate the reliability of shared data.

Tax analytics implications

The widespread use of APIs is a growth area in the tax software market giving both businesses and their tax advisors more choice in the tools they use. APIs are also perceived as helping encourage economic growth by allowing organizations to capitalize on data owned or processed by third parties including public bodies. While organizations can be expected to safeguard commercially sensitive data, or information which they are obliged to protect as a result of data privacy regulations, there will still be scope for analytics to be used on shared data for benchmarking purposes including areas with tax implications.

APIs can also have use cases within organizations. In the medium term, such technologies have the potential to provide reliable and detailed data to support analysis of transfer pricing and transactional taxes. Having access to such data allows for the performance of data analytics to establish say, that a group's transfer pricing policy is reflected in intercompany transactions or to monitor the accuracy and completeness of VAT or customs duty compliance.

In the financial sphere Bitcoin uses Blockchain to facilitate transactions at the same time as disintermediating the banks. However, although there is a lot of hype about the opportunities presented by Blockchain, Deloitte believes it is unlikely in the near future that whole commercial ecosystems will have adopted it sufficiently to make much of the external auditor's work unnecessary or to allow its participants to argue that they should also be exempt from tax audit since the information already provided to the tax authorities is inherently reliable and accessible. For the time being both tax payers and tax authorities will remain reliant on data analytics as the best way to check for accuracy and completeness.

Emerging leaders

It's important not to overlook significant developments in some less mature economies which offer interesting insights into likely developments in tax regimes in the years ahead.

The Global Tax Reset – characterized by increased transparency, changes to tax systems and closer working between tax authorities under initiatives from the OECD, G20, EU and WCO – is causing significant developments in the way that tax and customs authorities and taxpayers interact. However, amid these global initiatives, it's important not to overlook significant developments in some less mature economies which offer interesting insights into likely developments in tax regimes in the years ahead.

Tax authorities across Latin America have been using technology to address challenges such as falling oil and gas receipts and the impact of the black economy through the use of tax authority approved e-invoicing and monthly submission of e-accounts. The new ways of interacting between tax authorities in Brazil and Mexico and their taxpayers has caused some reflection on how the tax profession may evolve in the future.

In Europe, Estonia (see Connected world) has demonstrated how modern technology can be used to streamline the interaction between government and citizens without imposing a significant burden on either. By developing interface software to allow secure peer-to-peer communication between legacy systems, Estonians are able to access a variety of capabilities from ordering medical prescriptions to tax return filing from one website. However, for such a system to work, it requires citizens to have a digital identification which may prove a difficult sell given privacy concerns in many countries.

India is introducing its first nationwide tax in 2017. Goods & Services Tax (GST) will apply in a business-to-business context. The system requires monthly filing of invoices with an independent agent which will use analytics to reconcile GST reported by vendors and purchasers. The tax authorities will also use analytics to apply a compliance rating to companies which will determine the focus of their tax audit effort. The compliance rating will also be available to purchasers as an indicator of the vendor's compliance quality which is expected to be adopted as an evaluation criterion by procurement departments thus getting purchasers to push vendors to comply.

Tax analytics implications

The steps being taken in some Latin American countries are allowing them to gather significant volumes of transactional information in real time. When corporate taxpayers submit their accounting information to the authorities at the end of the month, the authorities are immediately able to run tax data analytics to compare 1) the company's monthly return, 2) the electronic invoices that the company has issued during the course of the month and 3) invoices issued by other taxpayers for supplies made to the company. This allows the tax authorities to identify discrepancies in reporting for follow-up with the taxpayer. This new source of information and the application of tax data analytics also allows tax authorities to improve their risk assessment modeling and the selection of potential cases for tax audits.

In general, for corporates, their tax functions and their advisors this changing landscape presents a challenge in terms of the timing of compliance activities. One way to prepare for tax authority inquiries, is by using tax data analytics to self-audit monthly return prior to submission.

The Latin American examples provide insight into the way that countries adopting the Standard Audit File for Tax (see Compliance culture) or other electronic data gathering could benefit from the application of tax data analytics, while Estonia has shown how tax compliance can be revolutionized without expensive hardware investment. So far, only Finland is looking to emulate Estonia, but countries that pursue a more joined up digital agenda will be able to take advantage of analytics capabilities both for tax and other purposes.

Evolving workforce

In many workplaces, millennials are now in the majority and the winners in the war for talent will be those employers who recognize and cater to this generation's different lifestyles and career expectations. The millennials are tech savvy, expect content on demand, consume news electronically and have a consequent fear of being disconnected. In the workplace they are attracted by flexible hours and challenging projects which give them the opportunity to be innovative. Flatter organizations with less formality and faster decision-making are appealing.

In many cases millennials can see better ways of completing the tasks they have been employed to perform. They see opportunities for looking at problems differently through the use of analytics to execute trivial decisions or submit routine returns, for using visualizations to find unseen trends, and for connecting to previously untapped resources to solve problems.

Tax analytics implications

To be effective and productive millennials need to be empowered to innovate and their efforts need to be recognized. Leaders, in turn, need to see beyond short term limitations in efficacy or quality and provide an environment in which innovation thrives. Given encouragement, millennials can be expected to exploit the richness of the tax data environment to find new ways of leveraging analytics to make compliance more effective and of higher quality and exposing insights to enable better decision-making.

Being tech savvy themselves, millennials have a keen appreciation of how analytics outputs are consumed and at their best are able to combine a helicopter view for the C-suite with the levels of granularity demanded by middle management. Giving them the opportunity to explore and experiment with data will provide a rewarding working environment and keep new generations engaged. At the same time this will create added value for employers who are being required to provide data to the tax authorities in new ways, and who need to find new solutions for gathering and submitting such data.

So far data analytics in tax and many other professional fields has been seen as an add-on to existing services, uncovering insights on the back of which traditional advisory services can be provided. In the near future Deloitte expects forward thinking organizations to establish analytics as a core competency across the enterprise providing insight-driven outcomes. Of course, freeing millennials to pursue analytics in this way will need to be accompanied by investment in relevant enabling technology.

Some millennials will chose not to pursue conventional careers in full time jobs. Those most capable in the field of data analytics may respond to the war for talent and the comparative scarcity of their skills to take advantage of the combined freedom and earning potential that the gig economy offers. This raises the prospect of solving the more demanding tax data analytics challenges in a crowd-sourced environment of like-minded experts without the bureaucracy of traditional employment arrangements. This offers another source of analytics expertise to both corporates and their advisors. Employers in more traditional corporate structures should be open to the possibility of buying capabilities and intellectual property (IP) in this way, rather than having their own employees developing and delivering IP in-house.

Giving new generations the opportunity to explore and experiment with data will provide a rewarding working environment and keep them engaged.

Conclusion

Deloitte is confident that there will be significant tax data analytics developments arising out of the blurring of the market, and the use of exponential technologies in a hyper-connected world. We see the importance of a relentless focus on robust compliance by organizations as tax authorities around the world share best practices, and millennials transform the tax workplace. But we don't claim to have all the answers or indeed a fortune teller's crystal ball. The ideas here are intended as a conversation piece, not tablets of stone.

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If you'd like to join our conversation and discuss the opportunities and threats presented by these trends, particularly in the field of tax data analytics, please contact:

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