

Tax Analytics

From the inside out

The (not so artistic) state of the art

By **Thomas H. Davenport**

Independent Senior Advisor, Deloitte Analytics

Although tax was a numerically-focused field from the beginning, many tax management departments within companies have been slow to adopt analytics. In order to gain knowledge about some of the reasons for the lack of analytical activity in the field, and to understand what progress has been made, we interviewed several directors of tax and tax information technology in large global companies. The firms were primarily in the energy and financial services industries.

It's clear that some companies are beginning to address the area of tax analytics, particularly within tax planning. Those firms that have begun to adopt analytical approaches have discovered benefits, but specific issues and prerequisites remain to be addressed before tax analytics will be widespread.

What are tax analytics?

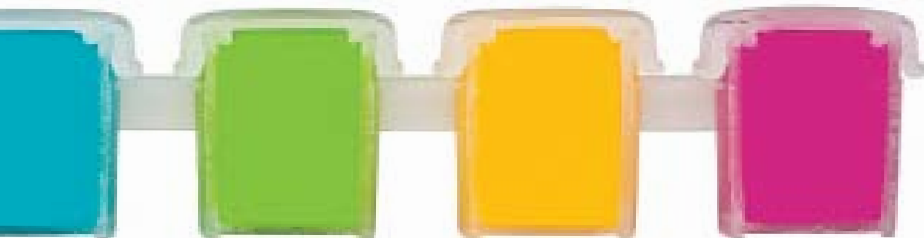
Analytics have been defined as "the extensive use of data, statistical and quantitative analysis, exploratory and predictive models, and fact based management to drive decisions and actions." Tax analytics, then, are the application of these methods to the tax function and the management of taxation. The goal of most

organizations with tax analytics is to manage taxes, or to better understand the financial implications of different tax-oriented decisions. In many cases, tax analytics may be applied to tax planning, or activities to reduce taxation, rather than to the process of compliance with taxes (filing tax returns).

Why is tax not highly analytical?

Why is tax historically not very analytical? A key issue is lack of data. Companies have not generally captured their tax situations and outcomes in a structured format, and hence have not been able to develop models that link tax circumstances and attributes to specific tax payment outcomes. Some of the specific problems that companies encountered in becoming more analytical in tax, with specific quotes from interviews, are described below.

- *Not enough data:* Several of the tax executives interviewed made comments such as, "We don't have much data," or "There is no tax data in our data warehouse." Even when data is available from tax forms and processes, it may not be in the appropriate form to be analyzed. Several companies' executives stated that whenever they were asked to supply tax data analysis, there needed to be considerable manual data manipulation and integration.
- *Tax structures and data are complex:* Several executives mentioned that tax data in multinational firms is complex, and is difficult to capture and store. Some of the complexity results from complex corporate organizational structures. Most such companies have many different legal entities, and they would need to tag all transactions to the legal entity involved. The way companies hold foreign assets is often distinctive



and complex. Some companies have begun to do this type of tagging and classification, so they are better equipped in the future to do tax planning based on more granular data.

- *Tax software does not allow for easy analysis:* Several of the survey participants — particularly those involved in tax IT — mentioned that standard tax software is not well suited to analytics. Most products are more compliance-oriented than planning-focused, and don't allow for much flexibility in addressing company-specific tax situations. One executive said that tax software "tends to be rule-based, but the rules don't perfectly fit anybody." Legal entities in standard programs can't be treated in the multiplicity of ways that companies deal with them. As a result, much tax planning tends to be on spreadsheets, which can lead to time-consuming processes, errors, and version control issues.

Increasing demand for tax analytics

Despite these difficulties, every executive interviewed said that the demand for tax analytics was increasing in recent years. In part, the demand is being driven by senior management as companies become more analytical overall. As one tax executive put it, "Senior management is asking more analytical questions; it used to be you could answer with 'I think,' but now that's not acceptable." Another executive noted, "Our new CFO and Chief Accounting Officer are very analytical, whereas companies in our industry are traditionally more intuitive. Now it's 'let's look at the data.'"

Another factor leading to more demand for tax analytics are tax regulatory requirements from government taxation authorities. Countries including Brazil, Germany, Mexico, and the UK now require corporate transaction data to be submitted for analysis. Data for U.S. sales and use tax also requires the submission of data files on taxable

transactions. These regulatory bodies are employing more analytical techniques on the data to conduct audits. If companies want to avoid problems in dealing with these government authorities, they need to undertake similar types of analyses on their own data.

One multinational firm we interviewed is becoming more analytical over time across multiple functions, including tax. One driver was the company's overall financial strategies around becoming a better provider of data to make decisions. The company undertook a tax data strategy project in 2012, with six pillars of tax data strategy. They include "Business Information and Analytical Capability," "Structured Data," "Unstructured Data" (supporting documentation for audits), "Audit Defense" (particularly related to transfer pricing and arm's length pricing), "Optimizing Systems," and "Developing People Skills" related to analytics. There are already projects underway to advance most of the pillars. The company's efforts are particularly focused on analytics related to indirect taxation, which its managers view as more data-intensive.

What kinds of tax analytics?

The types of analytics that companies pursue in tax are substantially different from most analytical initiatives in companies, which center on statistical models and predictive analytics. The focus in tax is instead on spreadsheet-based simulation models that explain or predict tax levels under particular circumstances. One head of tax noted, "If the tax rate was 32% last year, and 34% last quarter, people want to know why the rate is changing." Another said that their analytics explain "why taxes are particularly high in a month or quarter." An energy company's tax executive said that, "Our analytics are primarily focused on understanding the tax implications of certain fields or assets and their production."

Some of the tax focus is on explaining past results, but there is also an interest in prediction. “We would like to be able to predict; we don’t want any surprises in a quarter,” said one head of tax. Another said, “We need to forecast the earnings of foreign subsidiaries.” Prediction, however, is generally based on pro forma simulation (“what-if” analysis), and not on statistical forecasting from past tax data. One executive interviewed commented, “We will move in a more predictive direction. It is an evolution. We can now predict sales and use taxes, and also the P&L impact of tax through what-if simulations.”

Analytics are sometimes used in these firms to understand the implications of specific decisions, but tax implications are less emphasized. One tax manager noted, “Our decisions to keep or sell assets are often quite analytical — particularly in terms of discounted cash flow. But tax is considered later, and it’s not as analytical.” The same executive said that his company had developed a quantitative tax planning capability over the previous few years. “We explore various scenarios and what-ifs, including different legal entity and capitalization structures.”

Some executives interviewed expressed a desire for more sophisticated, statistically-based analytics. One noted, “We aren’t through. Our plans are to move further into this area. In particular, we want to develop an ability to do long-range forecasts of earnings, profits, and foreign tax credit pools. Right now we are nowhere near where we would like to be.” Another executive noted an interest in moving toward greater use of statistical sampling of tax items to determine the frequency of errors and to predict audit risk. A company with a retail business said

that analyzing VAT data and tax opportunities would be a focus going forward. Another company with an active tax planning function sees a future involving a higher degree of automation in tax projections.

Data infrastructure for more tax analytics

Companies are interested in doing more with tax analytics, but there are several important prerequisites to increased levels of activity. Many of them, involve tax data. Companies said they are beginning to collect more of the data that goes into their tax returns. One executive commented on the need for more “data harmonization” — getting tax data to mean the same thing throughout the company. He commented, “That is the toughest part. People know how to interpret the data when they look at it manually, but can’t see it in analytics yet.” The goal of the data harmonization would be to provide more timely responses to tax-oriented queries from around the company.

Several companies also mentioned greater integration in the future with their data warehouse. One mentioned, for example, that, “There is an enterprise data warehouse (EDW) being built. They want the Tax function to start from the EDW with the data we use, and create interfaces to that data. Then we would also add tax data to the warehouse.” This executive hopes to create effective version control procedures with the help of the common data in the warehouse.



A human infrastructure for tax analytics

Another key prerequisite for increased usage of tax analytics — and a challenge for organizations taking this direction — is to find people who are knowledgeable about both tax and analytics. This is a challenging combination for the firms we interviewed. Executives say that universities don't train specialists in either tax analytics or tax IT, and so they have to train them on the job. One executive noted, "Universities aren't generating people who can help with this, so we have to create them ourselves. It is easier to take quantitatively-oriented people and teach them tax stuff than to do the reverse." Another agreed, "Traditional tax people don't think this way; tax planners are a little better." A third commented that, "Really good tax lawyers aren't very good at spreadsheet work, and whizzes at Microsoft Excel may lack the substance of tax technical depth." Adding to the challenge, another executive commented that even if her company had tax analytics specialists, "They would need to do more... we don't have the luxury to have specialists just on analytics."

The interviewed executives suggested several options for acquiring or training the right kind of people for these roles. One said that a group of economists on a transfer pricing team were the closest her organization had come to the right kind of background and skills. Another

suggested that whatever the individual's analytical skills, he or she would need to be able to collaborate closely with tax attorneys. Several said that they saw an opportunity for universities to create programs that blend tax law with analytics and IT, although none were aware of any existing programs with that combination of orientations.

Moving forward with tax analytics

It's evident that the tax departments want to be more analytical in the future than they are today. Tax executives need to be preparing for this future now by working on data infrastructure, assembling the right people and skills, and acquainting managers within the rest of the organization with the art of the possible. It is better for tax managers to lead the analytics charge than to be forced into it by other executives. It is the right time for this numerically-focused field to take its numbers game to the next level.



About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. Please see www.deloitte.com/about for a more detailed description of DTTL and its member firms.

Deloitte provides audit, consulting, financial advisory, risk management, tax and related services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries and territories, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte's more than 225,000 professionals are committed to making an impact that matters. Deloitte serves 4 out of 5 Fortune Global 500® companies.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte network") is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.