Unlocking the power of data and analytics
Redesign, redefine, and redeploy tax to be a strategic business asset

pwc

Introduction

This is the third in a thought-leadership series exploring our predictions for the Tax Function of the Future. Our first piece outlines our predictions concerning the new challenges facing the tax function and why it must adapt to remain relevant. The second piece focuses specifically on our predictions relating to global tax legislation and regulation, as well as risk management, and how tax legislative and regulatory developments mandate change.

This piece discusses our predictions around how streamlining the data collection and management process enables the tax function to, shift its focus from gathering data to analysis and strategic participation within the organisation.

The global predictions cover six main areas:

1. Global legislative and regulatory landscape

2. Tax function's role in risk management and governance

3. Data flow into the tax function

4. Technology automation for tax function analytical tasks

5. Tax function roles and processes

6. The tax professional of the future.

For more information on our predictions for the Tax Function of the Future, go to ***www.pwc.com/taxfunctionofthefuture*** to read the previous publications in our series.
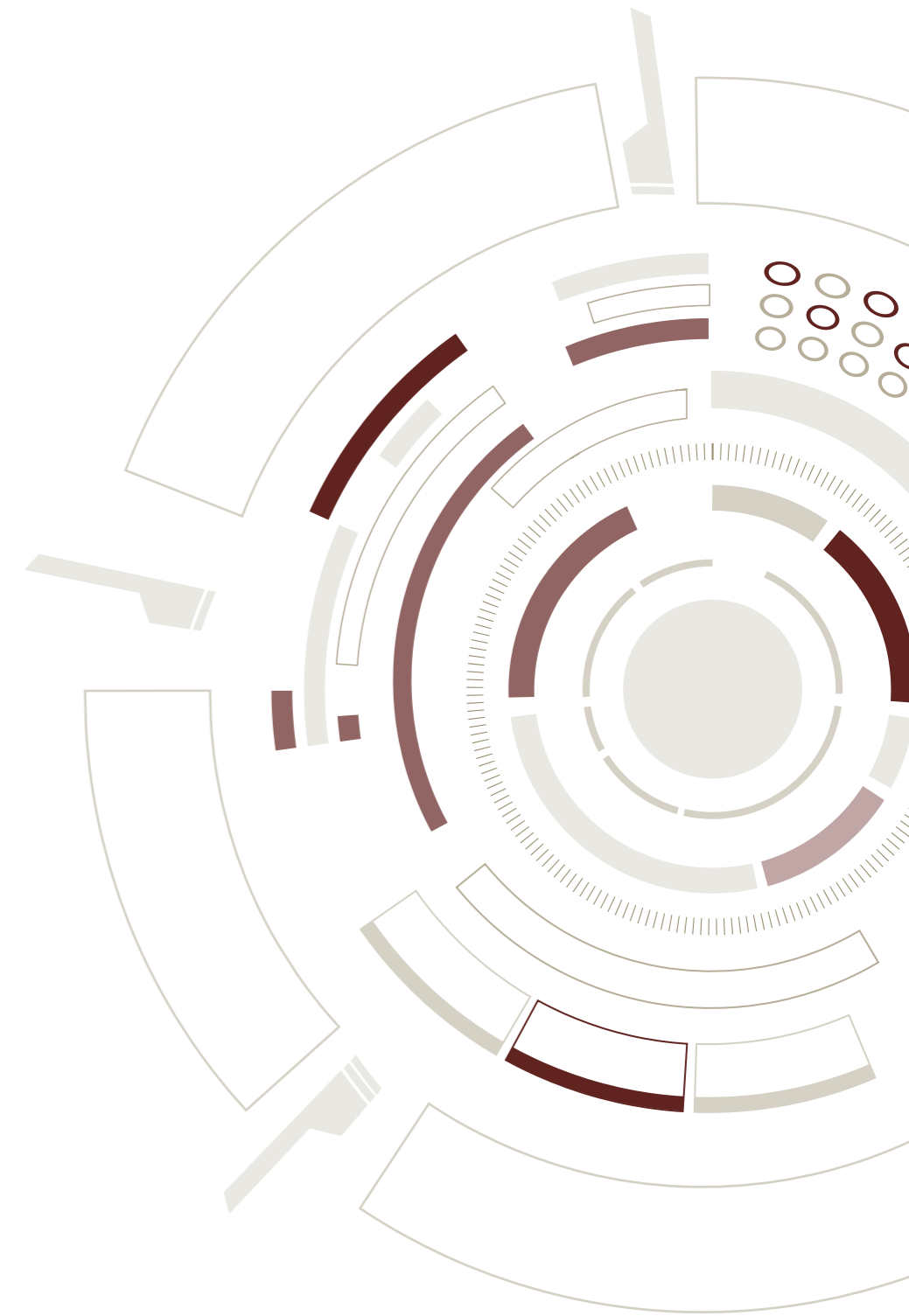
Executive summary

Data is key to enhancing the value of the tax function

Technology-driven disruption, along with the ever-increasing volume of data, is already having a major impact on companies and will continue to do so for the foreseeable future. A recent study estimated a 95% likelihood that jobs in the accounting and audit field will be computerised.[1] In addition, computerisation and the development of artificial intelligence and machine learning are being applied to solve tax challenges. The implications are that creating an environment where data can be leveraged for applied decision-making will become the norm and that the tax function is ready for transformation.

CEOs globally see technology in the area of data and data analytics as the #2 area to deliver high organisational value, according to PwC's 18th Annual Global CEO Survey.

The tax function is one of the largest consumers of data within an organisation, not only core trial balance data from financial systems, but also data from other transactional systems. Tax functions spend more than 50% of their time gathering tax data, while spending less than 30% of their time on strategic tax analysis, according to *Tax technology: Creating a strategic asset*, a 2013 joint PwC-Manufacturers Alliance for Productivity and Innovation survey (MAPI survey). Many tax executives also report that obtaining tax-ready information is an impossible problem for them to address on their own because tax is just a downstream user of data.

A majority of the tax functions reporting significant deficiencies said they could have avoided such deficiencies with access to better and more timely information, according to the MAPI survey

At the same time, 80% of the tax functions in the MAPI survey recognise that better technology and integration would improve their tax effectiveness. Yet, tax functions are spending less than 5% of their budget on technology, according to the *Tax Executive Institute 2011-2012 Corporate Tax Department Survey* (TEI survey). Additionally, 77% of tax functions in the MAPI survey do not have a tax technology strategy or a plan to develop one.

---

1   Frey, C.B. and Osborne, M.A. (2013), The Future of Employment: How susceptible are jobs to computerisation? *Oxford Martin School*, Oxford University.

Executive summary

Actively addressing the need for quality and timely data

How the tax function addresses its need for quality and timely data will ultimately shape its processes and resource requirements, as well as impact its ability to contribute more strategically to the overall business. The tax function must be actively involved in the budgeting of data management and analytic projects similar to those of other functions within the enterprise. It must also participate proactively in enterprise initiatives and cannot be passive in articulating the data issues it faces.

Overview

This article addresses the data challenges the tax function faces and why it is important to manage the information that is crucial to tax operations. It discusses how the tax function will fundamentally change the way it uses and looks at data. In addition, this article highlights our predictions regarding the use of enterprise resource planning (ERP) systems, business intelligence (BI) tools, and tax data hubs to provide the tax function with tax-ready information. It also explores the increasing importance of extending standardised tax data through analytics and the need to address data security as part of the broader organisation. Finally, the article closes with steps to take and items to consider to ensure that the tax function accomplishes its stated objectives through the adoption of better data and analytics practices.

The evolution of technology and ability to integrate information will lead to the benefits of a single source of data used by multiple platforms and apps. The ease of hosting options available for secure data in a cost-effective infrastructure is expanding rapidly and continues to lend itself to a continuous flow of data which can be plugged into powerful reporting and analytics apps to support tax. Integration of systems provides the opportunity to flex and adjust as business needs change for end-to-end connectivity from source data to multiple uses.

— *Matt Perrine, General Manager, Marketing & Strategy, Americas Enterprise Services, Microsoft Corporation*

Getting started

What data challenges do tax functions face?

Tax functions face significant challenges in gathering high-quality and timely data, hindering their ability to contribute more strategically to enterprise-wide decisions.

- **Increased transparency and stricter reporting requirements** necessitate doing more with data as tax authorities frequently demand more detailed information. This need will only increase as initiatives such as the Organisation for Economic Co-operation and Development's (OECD's) base erosion and profit shifting (BEPS) project, including its country-by-country reporting (CbCR) requirement, continue to drive the need for more information.

- **Tax data is housed in multiple locations** (e.g., ERP, consolidation systems, billing systems, and commerce platforms). Tax functions need that data in a tax-ready format, but often the information received is in less useful forms, with an inadequate level of detail, including legal entity information. The MAPI survey reports that only 20% of tax functions effectively leverage their accounting systems to accumulate 'tax-sensitive' data.

- Data must often be **manually reviewed, reconciled, and manipulated to be useful** for tax purposes. Not only are these manual tasks prone to errors, but they consume valuable resources that otherwise could be used for planning and analysis. More than 85% of the tax functions in the MAPI survey indicate that executing transfer pricing strategies is largely a manual process, with only 40% of them reporting that their ERP systems adequately capture the requisite data.

- Substantial time is wasted on the **inefficient collection and review of non-integrated data**. While nearly 71% of the tax functions in the MAPI survey say they have some integration of their compliance and provision process, only 29% of them are highly integrated. In the TEI survey, only 21% of tax functions report meaningful integration, and only 17% report integration with their accounting and/or consolidation system.

These challenges require robust, technology-enabled solutions to collect, verify, and report tax information. Improved, repeatable processes are needed to analyse data to identify and understand anomalies before and after meeting tax compliance requirements. For the tax function to effectively leverage and implement alternative resource models (i.e., the increased use of shared services centers), information it receives must be as tax-ready as possible, without the need for significant data manipulation and interpretation.

> **For a global business like ours, operating in more than 80 countries, the challenges in managing tax are growing. Increasing reporting requirements, new taxes, and our commitment to transparency place a greater emphasis on doing more with the data in our financial systems, in a process-driven, systematic fashion.**
>
> — *Graham Holford, Director, Group Tax, SABMiller plc*

◀ **Previous** ▮▮▮ **Next** ▶

Unlocking the power of data and analytics

Getting started

Why is it important to proactively manage tax data?

The tax function's need for information is outpaced only by the amount of data being collected and consumed by the enterprise. Organisations are seeing reporting and analytic needs surpassing their spreadsheet capabilities and requiring more sophisticated data analytic tools and techniques to fill the gap.

Most data used by the tax function for tax accounting, compliance, planning, and audit defense purposes does not originate within the tax function, but rather can be found in corporate finance, ERP, consolidation, and other operational systems. Gathering this information can be difficult because it can span multiple geographies and business units and is needed at a transactional level on a legal entity basis.

Yet, many organisations do not make the tax function an investment priority for new technology. There are tax questions that often go unanswered because the tax function has little time to obtain the necessary data manually, even though it easily could answer these questions if such a technology investment were made.

Integrating finance and tax data from multiple systems, applications, and spreadsheets into a common information and reporting platform can:

- significantly reduce the time and effort spent on manual data gathering, business and legal entity reconciliation, and tax reporting;
- change the focus from spreadsheet-driven manipulation to system or database-driven analysis and forecasting;
- enable the tax function to devote more time to prospective analysis and planning in order to provide quicker responses to questions from executives and auditors; and
- facilitate the effective use of alternative resource models.

Automating the loading and mapping of data from multiple sources into third-party solutions provides reliable, tax-ready, and reconciled information that can be leveraged for tax purposes. Integration also increases collaboration across business functions and enforces process management and control frameworks that enable early identification of potential issues and ensure an end-to-end audit trail. In addition, integration with BI tools enables more timely self-service reporting and promotes greater efficiency by leveraging data for planning.

Tip

Robust tax reporting applications bring tax and finance together by providing close integration between tax and related financial reporting processes. Implementing such a reporting solution ensures transparency and strong controls while leveraging investments already made in internal financial reporting and enterprise data hub technology.

Getting started

The future-state ecosystem provides an integrated platform that enhances productivity, improves data quality, and reduces risk through constant information flow between tax, finance, and third parties. It enables tax sensitised ERP and financial reporting systems to collaborate with tax data management and analytics, tax accounting, and BI tools to produce key deliverables, such as effective tax rate (ETR)/cash tax forecasting, tax provision, tax returns, uncertain tax positions, book-tax reconciliation, tax planning and forecasting, and audit ready reports.

Every tax function should have a current- and future-state ecosystem diagram created for its environment with a plan on how to move forward (see below).

Tip

The future-state ecosystem
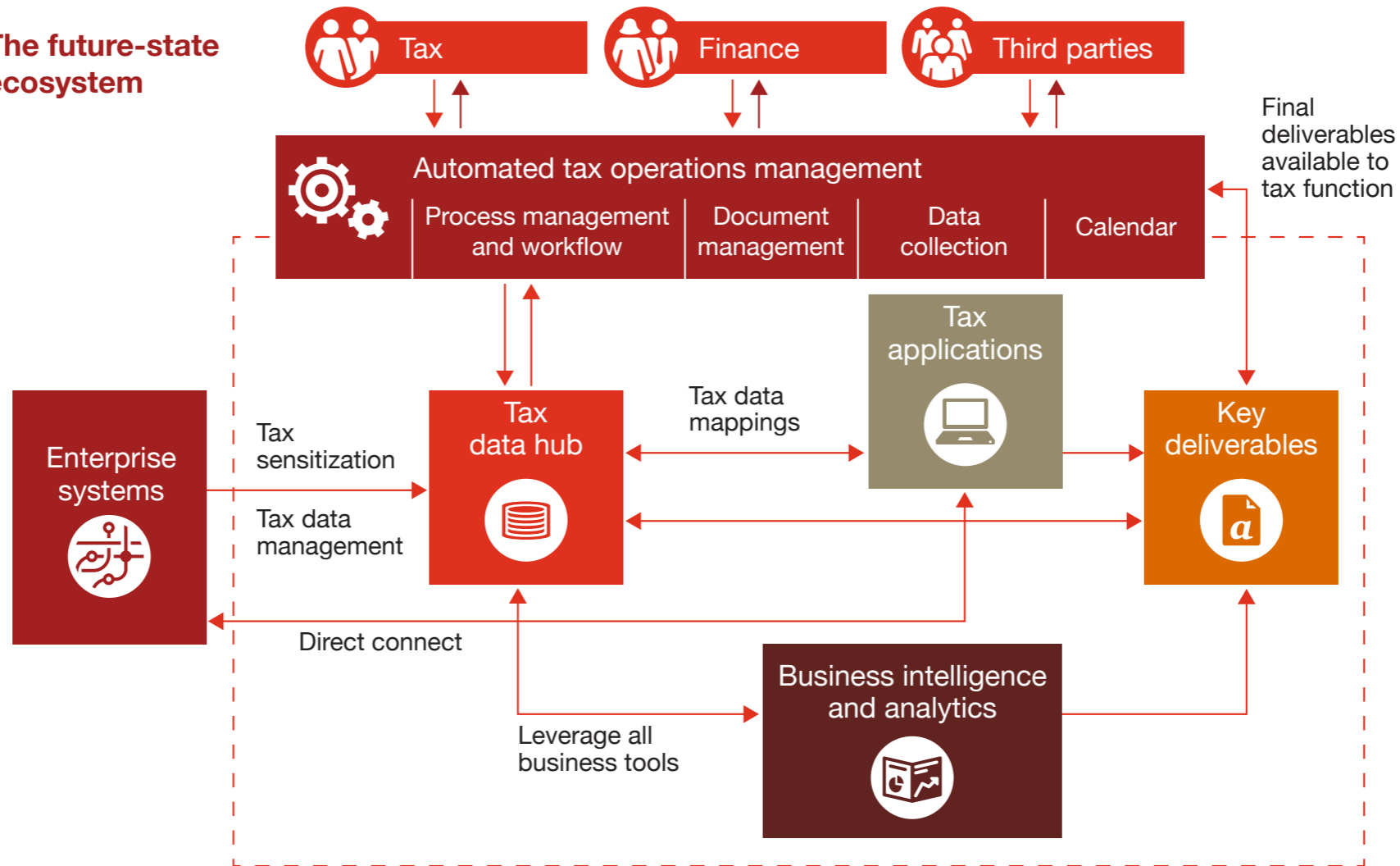
What's on the horizon for data flow into the tax function?

Tax functions do not have the resource capacity to spend significant amounts of time manipulating data before it can be used for tax purposes. The quality and timeliness of data must improve in order for tax functions to respond efficiently to increasing transparency mandates, ensure outputs correctly reflect the tax implications of business activities, and strategically contribute to enterprise-wide decision-making.

with multiple ERP or general ledger systems where a common financial reporting tool can rarely be leveraged by tax. It is either too costly or impractical to modify the financial environment solely to satisfy the data management and reporting needs of tax. Rather, the most effective way to address these needs and provide more sophisticated analytic capabilities is to establish a central, tax-sensitised data hub.

When determining whether a centralised combination of ERP, EPM and/or BI environments or a dedicated tax data hub should be leveraged to produce tax-ready data, certain requirements should be considered. Generally, the fewer the financial systems and/or charts of accounts and the more centralised the tax function, the easier it is to leverage the inherent ERP/EPM/BI capabilities, as depicted in the graphic on page 10.
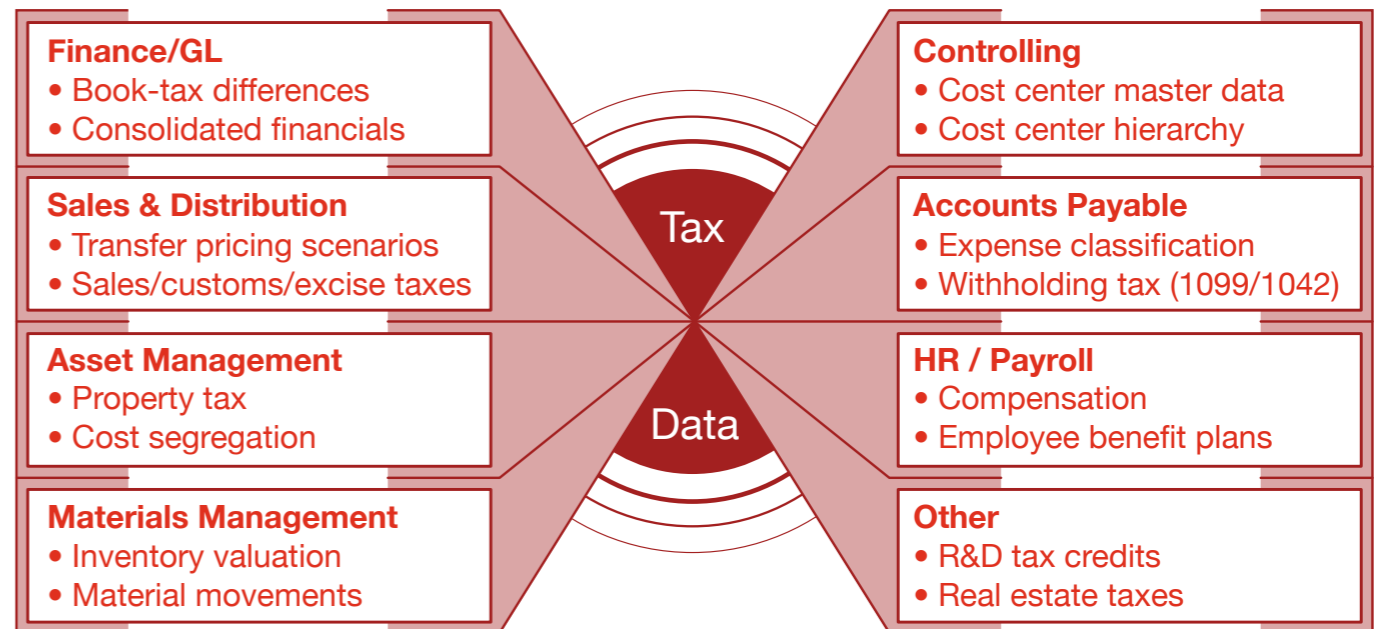
Prediction

The majority of tax functions will receive all information in a 'tax-ready' format from either their enterprise-wide financial systems or a dedicated tax data hub.

Especially when deployed with Enterprise Performance Management (EPM) and BI tools, ERP systems can provide most of the tax data management and reporting capabilities needed by the tax function. However, many businesses either under-utilise these capabilities or have decentralised accounting functions

Understanding the data needs of Tax

One of the complexities of tax reporting is the breadth of data that is required to meet the needs of the entire tax function. Tax data can be found in almost all functional areas of an ERP system, in all end to end processes, and can span across many geographies and systems.

Finance/GL
• Book-tax differences
• Consolidated financials

Controlling
• Cost center master data
• Cost center hierarchy

Sales & Distribution
• Transfer pricing scenarios
• Sales/customs/excise taxes

Accounts Payable
• Expense classification
• Withholding tax (1099/1042)

Asset Management
• Property tax
• Cost segregation

HR / Payroll
• Compensation
• Employee benefit plans

Materials Management
• Inventory valuation
• Material movements

Other
• R&D tax credits
• Real estate taxes

Tax

Data

What's on the horizon for data flow into the tax function?

Many of the data challenges facing the tax function are not tax issues per se, but enterprise issues that require tax to take the lead on communicating and facilitating cross-functional meetings with information technology (IT), finance, and other groups within the organisation in order to ensure adequate representation and understanding of tax requirements.

Leveraging an enterprise-wide EPM, financial, consolidation or ERP system

An economical way to address many of the tax function's data needs is to 'tax-sensitise' the ERP system by incorporating tax requirements as part of a financial transformation, shared services, ERP and/or EPM project. A tax sensitised ERP and/or EPM system (e.g., tax-influenced chart of accounts, legal entity reporting, and fixed assets) offers timely, tax-ready data for direct and indirect tax reporting and analysis that supports tax provision, compliance, and audit defense capabilities. Such a system also provides management insight and facilitates planning across the tax and finance functions.

Tax sensitisation varies based on the type of tax at issue and requires a unique, but coordinated approach as part of the ERP transformation. For example, data for indirect taxes is analysed at the time of the transaction, while data for income taxes is generally analysed after the transaction. However, in either case, the data and insights can be made available much earlier in the process.

The ERP environment should also address decommissioning of legacy systems and archiving of data that affect the tax function and processes. Historical tax data, including data required to support future audits, needs to be retained as part of the decommissioning of legacy systems.

In addition, future data retention requirements should extend beyond standard financial information needs and will vary depending on the tax risk positions being adopted. Factors such as the statute of limitations and past experience with tax authorities will determine the appropriate retention periods.

By being actively involved in an ERP or EPM implementation or upgrade, the tax function can:

- Dramatically improve the quality of tax data by tax sensitising the chart of accounts, defining reporting requirements, and evaluating indirect sales tax software, outsourcing requirements, and/or ERP vendor-specific provision capabilities.
- Automate the classification of certain revenue and expenses to more easily produce information requested by tax authorities during audits.

- Increase operational efficiencies by mapping comprehensive tax data requirements to the ERP environment to ensure information is generated in a tax-ready format.
- Enhance the value derived from the tax function by integrating ERP technology and business processes with financial consolidation and tax applications, incorporating tax provision calculations into planning and forecasting models, and incorporating key performance indicators utilised for decision making.

Tip

If your company is engaged in an ERP, EPM, consolidation or finance transformation project, the tax function needs to be intimately involved—with more than just one tax representative attending finance transformation meetings. Tax needs to be an active member of the transformation steering committee, engaged in the end-to-end process and requirements meetings, and part of the conference room pilots and testing.

What's on the horizon for data flow into the tax function?

Forward-thinking companies are considering the tax function earlier in the ERP transformation process, resulting in significant benefits not only to tax, but also to the overall finance function. Addressing tax requirements during an ERP/EPM project can reduce the overall cost of future tax technology changes by leveraging existing investments. By taking an active role in the ERP process, the tax function can reduce the amount of future support needed from the finance function, improve legal entity reporting, and ensure more accurate transfer pricing and indirect tax calculation and reporting, while leveraging broader enterprise support and budgetary means.

If the tax function is not involved early in the ERP/EPM process, organisations may be unable to meet their global tax compliance requirements on a timely basis. This could have a significant impact on penalties imposed by, and ongoing relationships with, tax authorities around the world.

When one organisation embarked on a holistic approach to integrate finance, tax, sales, service, and operations, it was able to achieve $25 million in benefit by aligning overall functionality with a new international tax strategy, which included more transparency and better access to data. Although not every successful implementation will match those achievements, significant benefits can be realised by integrating tax with the rest of the organisation and providing easy access to transparent data.

Tip

As part of an ERP project, consider leveraging other integrated modules of the ERP system to solve tax problems like consolidation, provision, planning, forecasting, and performance management. As examples, these tools can be leveraged to help with operational transfer pricing, forecasting ETR, and lowering the cost of provision integration.

" *Our ERP implementation provided the tax function with dependable tax-sensitised data. Due to significant improvements to the quality of our tax data, we increased provision and compliance operational efficiencies, improved the fixed asset tax depreciation process, and obtained detailed reports tailored to the tax function's needs.* "

— *Michael Cortez, Assistant Corporate Controller, International Rectifier*

" *A tax provision solution that is closely aligned with the broader financial reporting process can make a powerful difference in a tax function's ability to meet its deliverables.* "

— *Marc Seewald, Managing Director, Oracle Corporation*

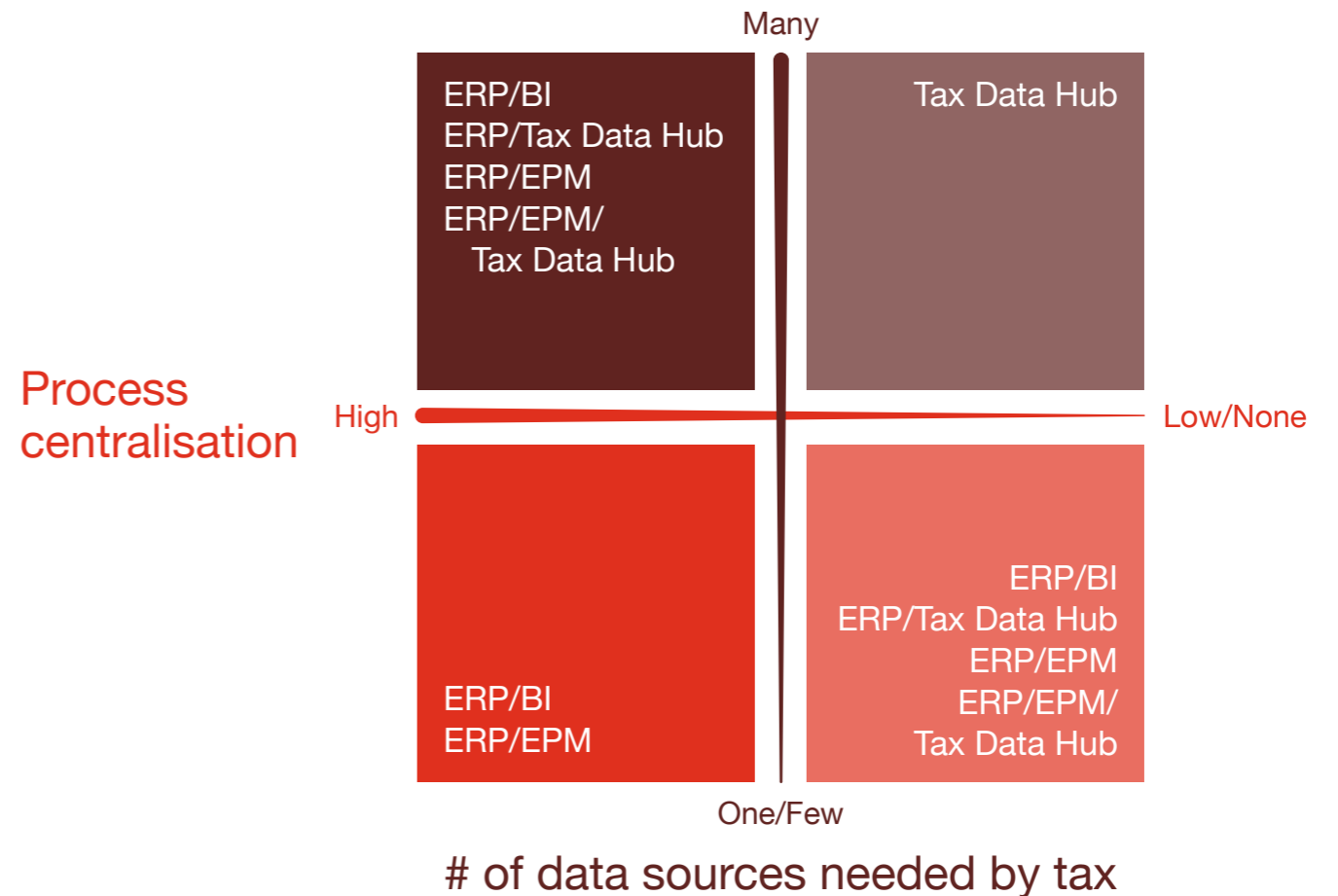# What's on the horizon for data flow into the tax function?

Prediction

Dedicated tax data hubs will become mainstream and be developed internally, licensed from a third-party vendor, and/or accessed through an accounting firm as part of a co-sourcing arrangement.

Although the TEI survey reports that fewer than one-third of tax functions have a tax data hub in use or development, tax data hubs have become more prevalent in recent years. These powerful tools centralise data received from various ERP applications, consolidation tools, and disparate systems and data files into a standard, tax-ready format. Because this data is used multiple times, for multiple purposes, tax data hubs create more automated, efficient, and predictive tax functions, facilitating improved reuse of data, reporting, forecasting, and analytics.

While tax functions can leverage ERP systems, consolidation systems, EPM, and related BI tools, a tax data hub likely would provide the best tax data management solution if:

- the organisation has a complex financial environment with disparate ERP systems;
- legal entity detail is not available within the ERP or consolidation tools;
- data needed by tax is sourced from various spreadsheets and systems that are not integrated within the ERP or associated financial reporting environment;
- business data is unstructured and isolated, making it difficult to use for insights; or
- the tax function's goal is to enhance its use of data and analytics.

Many

ERP/BI ERP/Tax Data Hub ERP/EPM ERP/EPM/ Tax Data Hub	Tax Data Hub

Process centralisation High ———————— Low/None

ERP/BI ERP/EPM	ERP/BI ERP/Tax Data Hub ERP/EPM ERP/EPM/ Tax Data Hub

One/Few

# of data sources needed by tax

What's on the horizon for data flow into the tax function?

Benefits of a tax data hub

A tax data hub provides 'one version of the truth' for all of the tax function's data, reporting, and analytic needs and is the only way to deliver advanced analytic reporting. In addition, a tax data hub:

- Eliminates the number of manual touch-points required to make data tax-ready, providing an automated end-to-end 'closed loop' between consolidation tools, general ledgers, and provision/compliance tools.

- Provides centralised transparency from consolidated trial balances to transaction details in a matter of seconds — a task that previously required extensive manual data collection across multiple ERP systems and time-consuming data consolidation and manipulation in spreadsheets.

Because data and analytics are on the top of the CEO agenda, there are often enterprise projects that should be extended to include tax.

Tip

The real benefit of a tax data hub is that it enables tax data to become a strategic asset and allows the tax function to 'self service' its own data and reporting needs quickly and effectively with one version of the truth on an enterprise-wide basis.

- Enables self-service reporting and analysis, so that the tax function is not dependent on the finance or IT functions to respond to information document requests, extract data from various systems, or create sophisticated reports. In addition, information stored within a tax data hub can be shared across all corporate functions and integrated into strategic planning, unlocking data possibilities for the organisation as a whole.

- Automates tasks that historically have been so manual and data-intensive that they were not performed more than once a year. For example, automation enables tax functions to perform net income reconciliations four to five times a year. In the past, such reconciliations were performed annually due to intensive manual data collection and spreadsheet manipulation.

Establishing a tax data hub

Although building a custom tax data hub to meet the tax function's specific needs is one option, technology advancements and enterprise investments offer various alternatives, including buying/licensing off-the-shelf software from third-party vendors or leveraging a tax data hub in conjunction with a co-source arrangement. Regardless of the approach, these investments are not only smaller than in the past, but also have more pronounced business cases. These three approaches can be summarised as follows:

- **Build:** Organisations can build a tax data hub internally by (1) extending an existing enterprise or financial data hub environment to include tax, (2) extending an integrated ERP/BI environment, (3) leveraging other available enterprise BI tools to develop a tax specific reporting environment, or (4) enhancing a current consolidation/EPM environment to include tax reporting requirements.

What's on the horizon for data flow into the tax function?

"We are engaged in efforts to build an enterprise-wide tax data hub, focused on obtaining and reporting tax-ready data. Because of our complex business environment and high volume of data contained in dozens of distinct billing systems, we decided to leverage our own Microsoft-developed technology to meet our needs. We expect to not only adopt this tool as a tax data storage solution, but also allow us to take advantage of Microsoft's own advanced reporting and analytics tools. We believe there will be significant reductions in the hours spent gathering, reconciling, and consolidating data. The hub's efficiency will free up valuable resources to continue to drive efforts such as examining book income variances, legal entity reporting and analysis, and improving provision processes."

—*Michael J. Bernard, General Manager and US Tax Counsel, Microsoft Corporation*

Building a tax data hub is a good approach for organisations with multiple, disparate ERP systems and a complex financial data environment, including decentralised resources and processes, or other enterprise programs in process. Strong integration and participation of the IT function are needed to assist with gathering the tax function's business requirements and building the tax data hub. Once the tax data hub is implemented, the tax function will require ongoing maintenance support from IT or a dedicated tax technology professional.

• **Buy:** Should the tax function have limited tax technology and/or IT support, it can buy an off-the-shelf tax data hub from a third-party provider, which can license, and also often host, the infrastructure for this environment, as well as provide ongoing support and maintenance.

• **Rent:** Tax data hub capabilities can also be achieved by engaging in a co-sourcing arrangement with an accounting firm, which provides the tax function with access to data collection, analysis, documentation, workpaper creation, reporting, and forms preparation capabilities that can be tailored to achieve greater efficiencies around data gathering and increased consistency of information. Accounting firms are making significant investments to build out standardised reporting, visualisation, and analytic layers that will provide not only the infrastructure support but also advanced thinking around data uses.

"A licensed data repository brings all the financial data from the general ledger systems throughout the world—including cost centers, sub-ledgers, journal entries, and transactions—into a single location where a tax performance engine can be used to format it specifically for corporate tax and business needs."

— *David Deputy, Director of Strategic Development and Emerging Markets, Vertex, Inc.*

What's on the horizon for data flow into the tax function?

The growing importance of data analytics

Prediction

The vast majority of tax functions will rely on professional data analysis tools to assist in the decision-making process in areas such as detection of risk, opportunity identification, projections and scenario planning, and overall business support.

Tax-sensitised ERP systems and tax data hubs provide the foundation to manage data, but without proper analysis tools, the tax function will not be able to maximise the value of the data. There are many analysis tools on the market, and most organisations already have licenses and support for at least one. Leveraging these existing enterprise

technology investments in reporting and visualisation tools to provide integrated and standardised self-service reporting and analysis is a natural extension from other functions within the organisation.

The ability to reduce latency and analyse data in real-time improves tax accounting, planning, and compliance. In addition, the shift from data gathering to analysis enables tax functions to spend more time looking at the data differently and using analytical techniques rarely utilised on tax data and impossible for spreadsheets to handle, including:

- *Correlation analysis*, such as identifying disparities between statutory tax rates and ETRs, drivers of ETRs, and identifying inconsistencies in indirect tax treatments.

- *Trend analysis*, such as using predictive models for forecasting the ETR and cash taxes paid.

- *Optimisation analysis*, such as applying optimisation techniques to determine the best transfer pricing fact pattern and conducting 'what-if' scenarios for merger and acquisitions.

- *Exploratory analysis*, such as using statistical and pattern matching algorithms to identify issues that might not be easily seen through standard reporting and visualisation techniques like incorrect information on invoices.

Tip

Leveraging reporting and BI tools, already licensed by the enterprise and used by finance, marketing, and/or supply chain, can lower the cost of ownership, not only for tax, but for the enterprise.

By using enterprise analytic and BI tools, tax functions can shift their focus to analysing key performance indicators, such as ETRs, cash flow improvement, and reducing variability in earnings. As a result, the tax function evolves from being viewed predominantly as a cost center to a more value-added business partner within the enterprise.

Tip

ERP implementation or upgrade projects and tax data hubs should be designed with more than provision and compliance functions in mind. Detailed analytics, forecasting, and planning also should be in the forefront, with an eye on CbCR, audit support, total tax contribution analysis, and the possibility that data may be accessed by other third-parties.

What's on the horizon for data flow into the tax function?

Data security

Prediction

Data security will be high on the agenda of tax functions due to concerns over confidential information being inadvertently released or shared publicly.

As global demands for transparency increase and the volume of corporate information necessary to manage the tax function grows, the use of spreadsheets, combined with new cloud services and outside vendors to manage data, expands. Regardless of how data is managed, an increasing amount of sensitive data passes in and out of the cloud and through the hands of third parties. If not managed and secured properly, that data, and the organisation itself, could be exposed to significant risks.

Security concerns, particularly with respect to the transfer of tax data to third parties for storage, processing, or support, are one of the primary reasons

tax functions are reluctant to turn over data to a third party through a cloud arrangement. Many tax functions, concerned about security in the public cloud, where data security depends on the reliability of the provider, believe that a private cloud provides greater security via dedicated resources under their control.

When considering the use of cloud services, tax functions should ask the following questions:

- What controls are in place to ensure appropriate access to tax data and other sensitive information?
- How is one company's data segregated from other companies' data?
- What safeguards has the provider put in place to prevent security breaches?
- What type of security model is appropriate for the new cloud environment?

What's on the horizon for data flow into the tax function?

To address these data security concerns, the tax function must be an active participant in enterprise technology initiatives, such as master data management, security, and governance projects, that are not owned by the tax function but impact it. In addition, the tax function should:

• *Identify and evaluate its data.* The tax function should identify the data that is essential to its operations and understand how that data is transmitted and where it is stored. For example, it needs to know that German data is in Germany and not stored elsewhere in the cloud. It also should evaluate the potential impact if this data is lost, destroyed, or compromised.

• *Anticipate data security threats.* The tax function should consider who may want access to its data and what their motivations might be, as well as what level of encryption is required.

• *Develop a strong tax data control framework.* Implementing strategies to enhance tax data security and aligning the control framework to that of the finance function enables better identification of unacceptable data risks in both functions. Likewise, improving the effectiveness of data security processes helps minimise reputational risk and other exposure areas for the company.

• *Implement a data classification policy.* To aid in determining baseline security controls for data protection, the tax function should implement a data classification policy to establish a framework based on its sensitivity, value, and criticality to the organisations.

• *Establish values and behaviors to create and promote data security effectiveness.* Given employee access to and reliance on confidential information, tax professionals need to be well-versed in data security policies and procedures. A robust security model allows flexibility on who has access to what data and when.

Tip

Organisations need to allocate funding to maintain and enhance data security policies within their annual project and expenditures budget. As such, tax functions should coordinate with their chief information officer to ensure they are aligned with the enterprise's data security approach, timing, resources, and priorities.
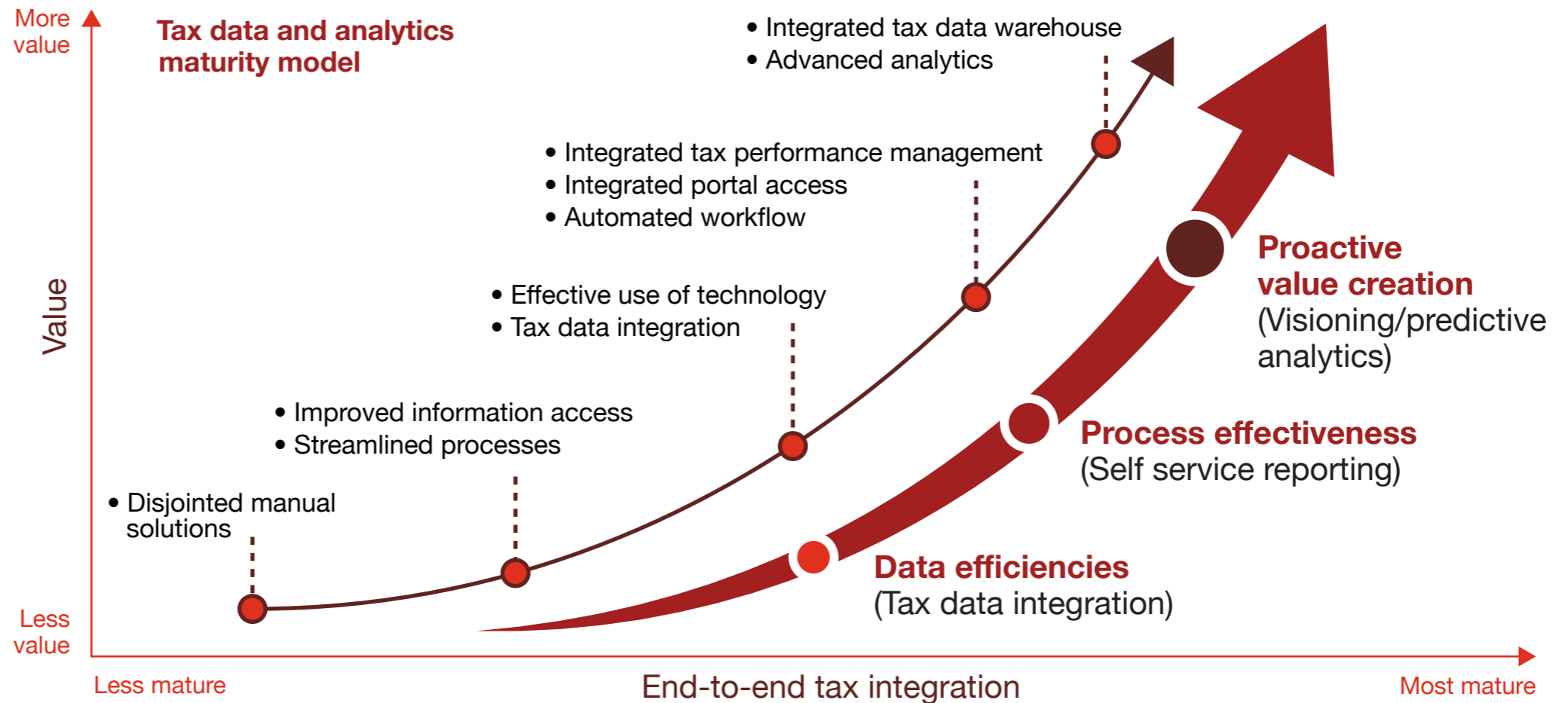
Bringing it all together by creating a tax data strategy

A data strategy must include participants from tax, finance, IT, and other functions in order to achieve consensus and a complete business case. By creating a multi-year strategy and plan centered around technology solutions, tax functions have an opportunity to show the C-suite how they can bring additional cost savings and value to the business by aligning themselves with broader strategic initiatives.

Assessing the tax function's current data capabilities against a tax analytics maturity model can reveal areas that may need strengthening.

Tax data and analytics maturity model

- Integrated tax data warehouse
- Advanced analytics

- Integrated tax performance management
- Integrated portal access
- Automated workflow

- Effective use of technology
- Tax data integration

- Improved information access
- Streamlined processes

- Disjointed manual solutions

More value

Value

Less value

Less mature

End-to-end tax integration

Most mature

Proactive value creation
(Visioning/predictive analytics)

Process effectiveness
(Self service reporting)

Data efficiencies
(Tax data integration)

Bringing it all together by creating a tax data strategy

The first stage of tax data and analytics maturity (tax data integration) focuses primarily on integrating disparate data sources required for the key tax processes to create a standardised, single version of the truth to meet the increasing demands of tax authorities and leverage data across the entire tax function. This includes integrating data that supports the automation of the provision and compliance processes (foreign tax packages, estimated tax rate calculations, cash taxes, CbCR, adjustments, transaction level detail, etc.).

In order to produce required reports, populate related tax returns, and streamline the integration of the compliance and provision processes, tax functions need to analyse transactional data, apply the applicable rules to categorise the data, and ultimately determine the appropriate tax or other treatment. The goal should be to automatically create an 80% finalised report/tax return draft (including the data loads into the provision and compliance tools, data validation, analysis of deviation, and referencing and referral).

Previous   Next

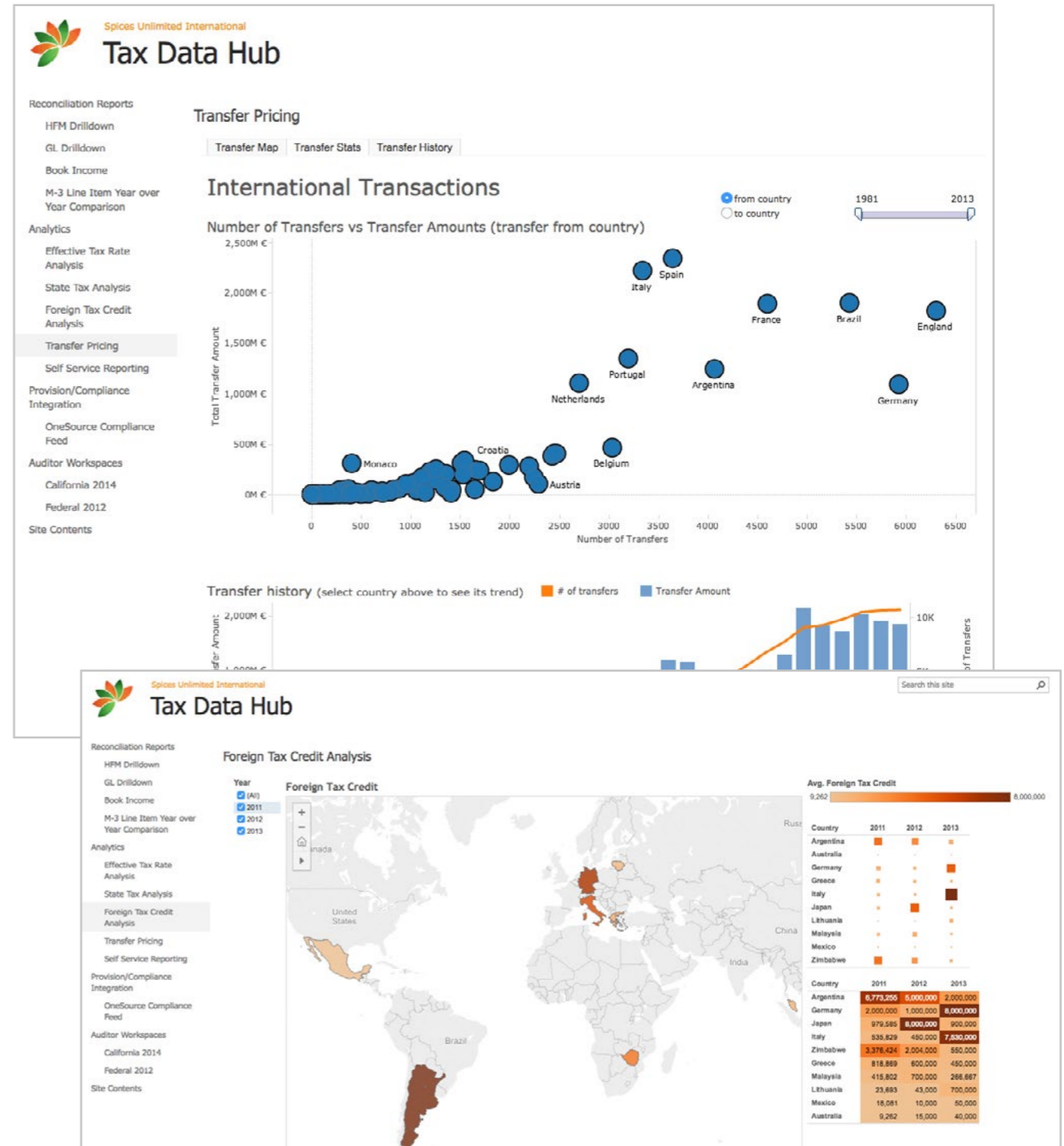*Unlocking the power of data and analytics*

Bringing it all together by creating a tax data strategy

The second stage of tax data and analytics maturity (self service reporting) focuses on creating basic self-service reporting and analysis with the integrated tax-ready data developed in the first stage. For example, tax requires access to detail transaction level information like intercompany transaction and journal entry data to assess and plan transfer pricing strategies and comply with local obligations.

With self-service reporting capabilities, tax staff can perform multiple analyses of transactions to accurately report, analyse, and visualise cross border transactions with affiliated parties, providing descriptive analysis where needed. Transactions can be tracked over time, affiliates can be compared, and thresholds can be applied dynamically based on entity or transaction type. This type of reporting, visualisation, and analysis facilitates the reduction of errors, the coordination and adjustment of transfer pricing processes, and continual dynamic monitoring. Similar types of reporting can be applied to the other areas of tax.

◀ Previous   Next ▶

Unlocking the power of data and analytics

Bringing it all together by creating a tax data strategy

The third stage of tax data and analytics maturity (visioning/predictive analytics) focuses on adding more sophisticated analytical capabilities, including ad hoc reporting, predictive modeling, natural query language and simulations that are already employed by other functions in the organisation. For example, the ability to assimilate both tax return and provision data over multiple years in order to inform the current period book-tax adjustments impacting the ETR can be very powerful.

Further, real-time modeling with access to very large amounts of data, allows companies to run different scenarios impacting their ETR to identify planning and structuring opportunities. Leveraging advanced natural query language and machine learning allow companies to easily understand and calculate different apportionment scenarios or understand where data quality issues might exist from an indirect perspective. Additionally, upon audit, companies could quickly evaluate potential assessment and reserve requirements that are necessary given different outcomes.

Previous ▮▮▮▮▮ Next ▶

Unlocking the power of data and analytics

Bringing it all together by creating a tax data strategy

The first step in improving the process of gathering quality data and enhancing decision-making is developing a tax data strategy that:

- identifies the processes and data used by the tax function, as well as its vision, business priorities, and related dependencies;

- assesses where the tax function aligns itself with its desired future state and goals;

- outlines plans for implementing and utilising data to enable tax processes and address current challenges and pain points; and

- helps define a path forward and groups projects into manageable phases, taking into account short, medium, and long term goals.

Assessing the tax function's current capabilities against its desired state will highlight the areas that need strengthening. A tax function should have a multi-year tax data strategy and roadmap that aligns to the overall business and tax strategy and contains:

- an evaluation and documentation of current tax data processes

- identification and prioritisation of improvement areas

- a plan on how to integrate with and leverage enterprise technologies

- a business case to support the planned projects and facilitate engagement in the budgeting process

- identification of implementation and ongoing costs

- an integration plan of tax data solutions with non-tax technology initiatives (e.g., business transformation efforts)

- alignment with other necessary functions within the enterprise (finance, IT, etc.), and

- a communication plan that conveys to the broader organisation the tax function's vision, needs, and intentions around tax data management.

Tip *Tax functions should focus on the broader benefits of responding to data challenges by taking the necessary steps to becoming more strategic contributors to the enterprise. This presents an opportunity for the tax function to further enhance its stature within the organisation by using technology, information, and analytics to contribute to the overall corporate vision and business strategy.*

Unlocking the power of data and analytics

Predictions

Global legislative and regulatory landscape

- Global tax information reporting requirements (e.g., CbCR and similar transparency initiatives) will grow exponentially and will have a material impact on the operations and related budget allocations within the tax function.

- Regulators will demand transparency regarding global taxation, necessitating clear and thoughtful communications with public stakeholders about corporate contributions to the communities in which they do business.

- Information sharing will be commonplace among taxing jurisdictions, and taxing authorities will have the capability to mine data and conduct global audits, resulting in increased disputes.

Tax function's role in risk management and governance

- Many jurisdictions will legislatively require the adoption of a tax control framework which follows guidelines similar to Sarbanes-Oxley and COSO (Committee of Sponsoring Organisations of the Treadway Commission).

- Enhanced stakeholder scrutiny and reputational risk will force companies to continuously re-evaluate their tax decisions.

- Strategic focus on jurisdictional reporting and documentation of business activities, including transfer pricing, will be critical to managing the increased tax controversy resulting from transparency initiatives.

Data flow into the tax function

- The majority of tax functions will receive all information in a 'tax-ready format' from either their enterprise-wide financial systems or a dedicated tax data hub.

- Dedicated tax data hubs will become mainstream and be developed internally, licensed from a third-party vendor, and/ or accessed through an accounting firm as part of a co-sourcing arrangement.

- Data security will be high on the agenda of tax functions due to concerns over confidential information being inadvertently released or shared publicly.

Technology automation for tax function analytical tasks

- More companies will use their enterprise-wide financial systems to prepare tax calculations (e.g., income tax accounting and indirect taxes), thereby replacing spreadsheets and/or traditional tax technology solutions.

- The vast majority of tax functions will rely on professional data analysis tools to assist in the decision-making process in areas such as detection of risk, opportunity identification, projections and scenario planning, and overall business support.

Tax function roles and processes

- Most global tax preparatory compliance and reporting activities, including data collection and reconciliations, will be performed within the company's shared service center or will be co-sourced with a third party.

- Tax functions will use real-time collaboration tools to automate their workflow, document management, calendaring, and internal controls.

The tax professional of the future

- A successful tax professional of the future will be highly proficient in data analysis, statistics, and technology, as well as process improvement and change management.

- Tax functions will employ dedicated tax IT, data and project management specialists who will develop, champion, and execute the tax technology and transformation strategies.

◄ **Previous**   **Next** ►

Unlocking the power of data and analytics

Let's talk

Look for future publications exploring the Tax Function of the Future

To have a deeper conversation about how these issues and predictions may affect you and your business, please contact:

Michael Shehab
US Tax Reporting &
Strategy Leader
michael.shehab@pwc.com
+1 (313) 394 6183

Mark Schofield
Global Tax Reporting &
Strategy Leader
mark.schofield@uk.pwc.com
+44 (0)20 7212 2527

Giovanni Bracco
Global Tax Strategy &
Operations Leader
giovanni.bracco@uk.pwc.com
+44 (0)20 7804 4059

Todd Bixby
Global Tax Technology Leader
todd.bixby@us.pwc.com
+1 (612) 240 1602

Andrew Wiggins
Global Tax Accounting
Services Leader
andrew.wiggins@uk.pwc.com
+44 (0)121 232 2065

Carsten Rössel
Global Tax Reporting &
Compliance Leader
carsten.roessel@de.pwc.com
+49 211 981-7141

Eelco van der Enden
Global Tax Administration
Consulting Leader
eelco.van.der.enden@nl.pwc.com
+31 (0)88 792 5138