Rise of the Tax Data Warehouse in Tax and Transfer Pricing Compliance Management

Tax teams in MNCs have an escalating need for a Tax Data Warehouse to simplify and automate the complex data management and data ingestion tasks currently managed manually in spreadsheets to avoid a too simplistic approach as this increases the risk of incorrect reporting and compliance.

Introduction

Imagine if the next tax season rolled around and instead of the usual scramble to gather and reconcile data from countless spreadsheets, all your required information was neatly organized, validated, and ready at the click of a button.

This isn't a far-fetched dream—it's the reality for finance teams that have embraced the Tax Data Warehouse approach. Let's explore why transitioning from traditional spreadsheets to a more sophisticated data management solution isn't just a luxury, but a necessity in today's complex tax landscape where Tax and Transfer Pricing compliance is increasingly data-intensive.

An Ernst & Young survey indicates that tax teams in MNCs spend around 70% of their time on data. Tax teams face significant hurdles in effectively compiling and refining a broad range of organizational data into a structured format suitable for transfer pricing analyses.

This article delves into these challenges, with a particular emphasis on data ingestion — the initial stage of data collection, transfer, and preliminary processing from disparate sources into a designated system for subsequent examination and use.

A new OECD aligned Transfer Pricing reporting dimension for Tax and Transfer Pricing teams

But first we introduce a new transfer pricing data and reporting dimension, the Transfer Pricing Unit (TPU). Before we look into the details of this data and reporting dimension, let's understand its importance. The introduction of the TPU is a strategic move to ensure compliance with transfer pricing reporting requirements. A TPU is a distinct segment within a legal entity that operates with its own transfer pricing methodology. It has a specific profit profile and, where relevant, a target margin. Specifically, a TPU can be an activity such as distributor or manufacturing, but it cal also be a product category.

This approach not only aligns with intuitive business practices but also simplifies the process of working with and comprehending transfer pricing mechanisms. By segmenting a legal entity into TPUs, we can achieve a detailed breakdown of the profit and loss (P&L) statement, with each TPU having its own P&L segment. This segmentation is vital for providing a comprehensive overview and enhancing transparency. The automation of intercompany transactions facilitates this segmentation, ensuring full visibility.

The TPU framework is in line with the OECD guidelines ensuring global compliance and regulatory acceptance. Unlike traditional Enterprise Resource Planning (ERP) systems, which do not inherently support TPUs, and the challenging nature of managing such data in spreadsheets, the TPU framework stands out for its innovative approach to handling transfer pricing data and reporting.

Tax Data Warehouse

In a recent conversation, a Tax Director from a major Nordic MNC expressed a keen desire for a dedicated tax data warehouse. This aspiration comes at a time when the organization has just begun to tap into its internal data resources. The Tax Director emphasized that the company prioritizes business operations first, finance second, and tax concerns are only considered subsequently, possibly indicating a future inclusion in their data strategy.

So, what is a tax data warehouse? Unlike customer data warehouses, there's no standard definition for a tax data warehouse. We propose this explanation: it's a specialized database or a segment within an existing business data repository, curated specifically to support tax compliance activities. While the scope of such a warehouse could be broad, encompassing various tax types like corporate income tax, VAT, excise duties, and customs, our focus here narrows to corporate income tax and transfer pricing.

A tax data warehouse should encompass all necessary source data for tax computations. This data might originate from diverse systems or files, and it's generally best to start with the rawest form of data available. The ideal tax data warehouse will store original data inputs, subsequent manipulations, and the details of the computations. Such a comprehensive repository not only facilitates transparency but also fortifies the audit process, ensuring that the tax compliance framework stands up to scrutiny.

Categories of Data

For a tax data warehouse to be effective, it must competently manage four principal categories of data:

- Master data;
- Financial data;
- Transactional data; and
- Other data.

Each type of data originates from distinct sources and is typically managed by different data owners or stewards within the organization. Together, these categories constitute what we call 'enterprise data,' which is integral to the tax data warehouse infrastructure, ensuring that all relevant information is accessible for tax compliance and reporting purposes.

Importing and Managing Enterprise Data

We will articulate the data categories essential for the precise execution of transfer pricing policies across intercompany transactions. These range from manufacturing and sales of goods to the provision of services within a group. Such meticulous data management is critical to meet the extensive tax and transfer pricing reporting obligations imposed by global tax authorities.

- **Master Data:** This category includes structural and format-specific foundational information such as entity structures, general ledger formats, cost centres, and profit centres, all of which are pivotal for interpreting financial, transactional, and other types of data. This information is typically dispersed across various systems and databases, including legal and ERP systems.
- **Financial Data:** This encompasses data extracted from ERP systems, including general ledger entries, profit and loss statements, balance sheets, and data related to cost and profit centres.

- Finance and accounting departments maintain ownership of this data. It can be segmented and analysed by division, product, geography, and counterpart, spanning various reporting dimensions like legal entity, organizational unit, and accounting unit. However, it notably lacks integration with the crucial transfer pricing unit. While local ERP systems enable detailed examination down to individual journal entries and associated documents, such as invoices, consolidation systems often lack this level of transparency, particularly in relation to the specifics of intercompany transactions.
- **Transactional Data:** This set of data is central to business management, encompassing detailed commercial information such as volumes, prices, discounts, and margins, including both historical data and forecasts. Ownership of this data typically resides with finance divisions—such as division controllers, business unit controllers, and Financial Planning & Analysis (FP&A) teams - who collaborate closely with commercial business leaders in sales, marketing, R&D, manufacturing, and supply chain, as well as support functions like legal, IT, and HR.
- **Other Data:** This category includes various data elements that do not conventionally fit into the other categories, such as full-time equivalent (FTE) counts, software license quantities, facility dimensions, production batch details, and similar metrics.

Diverse Data Sources

The diversity of systems from which data is sourced presents a well-recognized obstacle for tax teams. Variations abound not only across different systems but also within the same system, such as the numerous iterations of SAP, each with its unique data formats. Additionally, there's data embedded in emails, reports, spreadsheets, and other documents that typically lack a robust audit trail.

Deciding on the most appropriate data set is a common challenge. Generally, data from local ERP systems is deemed the most accurate for tax reporting purposes since it underpins the figures reported in tax returns. However, this data is less accessible to central tax teams. In contrast, while consolidated data is more readily available to group tax teams, it is too summarized and requires conversion into local Generally Accepted Accounting Principles (GAAP) before it can be utilized for local tax filings.

Organizations vary widely in their approach to data management. Many have embarked on ambitious data digitization projects in recent years, aiming for a unified 'single source of truth' within their operations.

Despite these efforts, the integration of tax and transfer pricing processes into these projects is often overlooked, leading to a continuation of relatively manual data management practices for the foreseeable future.

Digital Tax Data Management and Ingestion

The evolution from manual to digital data management and data ingestion in various corporate functions underscores a shift driven by necessity. Finance teams have transitioned away from spreadsheets for financial reporting, just as sales and marketing teams have abandoned rudimentary tools like post-it notes for customer data management. The complexity and volume of data involved make manual methods untenable, requiring excessively large teams and presenting a high risk of errors that could be detrimental to business operations.

For tax teams, while the nature and scale of data management differ from customer data handling or finance requirements, the challenges are analogous.

Spreadsheets, while useful for data transportation and calculation, are inherently limited by their static, formula-based structure. They lack the flexibility needed to manage processes effectively.

In contrast, a digital platform operates on a rule-based system that is inherently dynamic, understanding and adapting to various data formats essential for the precise interpretation and processing of financial information. This adaptability is crucial to accommodate changes in formats and data, with updates merely involving rule modifications.

A rule-based digital system ensures uniformity over time, facilitating advanced calculations while maintaining complete transparency and the ability to trace every piece of data throughout its lifecycle.

Tax Data Strategy

A sound data management and ingestion strategy is characterized by a suite of capabilities that streamline and refine the process.

These capabilities include:

- **Automated Data Format Recognition:** This feature automatically detects and conforms to the variety of data formats presented by ERP systems and other data sources, seamlessly integrating them into the tax workflow.
- **Rules-based Data Transformation:** It involves converting unstructured raw data into organized formats that are optimized for transfer pricing analysis, using predefined business rules to ensure consistency and accuracy.
- **Cost Allocation:** This capability entails distributing costs in accordance with established rules that consider cost centres, thereby guaranteeing that costs are attributed correctly among various transfer pricing units.
- **Real-time Data Updates:** The system continuously refreshes data formats and structures in response to any changes, preserving data accuracy and reliability throughout its lifecycle.

Manual vs Digital

The difference between manual and digital data management and ingestion, particularly in the context of the provided P&L segmentation example, is in the level of automation, accuracy, and efficiency:

Manual Data Management

- **Time-Consuming:** Manual processes often involve significant time input for data entry and manipulation.
- **Error-Prone:** Human data entry is susceptible to errors, which can lead to inaccuracies in financial reports and analysis.
- **Limited Scalability:** As the volume of data increases, manual systems become less manageable.
- **Requires More Personnel:** More staff is needed to manage, enter, and verify data.
- **Lacks Real-Time Updates:** Manual systems do not update in real-time, which can delay decision-making processes.

Digital Data Management (Rules-Based System):

- **Automated Processes:** Digital systems can automatically recognize and categorize data, reducing the need for manual input.
- **High Accuracy:** Automation reduces the risk of human error, enhancing the accuracy of data.
- **Scalable:** Digital systems can handle large volumes of data efficiently.
- **Cost-Efficient:** Requires fewer personnel for data management as many processes are automated.
- **Real-Time Data Processing:** Digital systems can update data in real-time, aiding faster and more informed decision-making.

We explain and illustrate the distinction between manual and digital data management and ingestion through an example in the section below.

Example

To further demystify the Tax Data Warehouse, let's delve into a hypothetical yet practical and realistic scenario that most tax and transfer pricing managers will recognise.

Picture the tax team of an MNC facing the daunting task of segmenting its global legal entities. With operations spanning several countries, each with its own set of transfer pricing regulations, the manual allocation process is not just tedious but fraught with risk. Enter the the data engine and tax data warehouse, which is programmed to dissect costs based on multi-dimensional criteria. It doesn't just allocate costs; it does so with the precision of a seasoned tax strategist.

Let's examine the value of having a robust tax data warehouse in relation to the task of dividing a legal entity's profit and loss statement (P&L) into P&Ls for distinct TPUs in an arm's length manner.

About the legal entity:

- sales $50,000,000;
- cost of goods sold $40,000,000;
- operating expenses $9,000,000; and
- EBIT $1,000,000 or 2%.

It has three TPUs:

- A Sales TPU;
- A Manufacturing TPU; and
- A Service TPU.

In this example, we will focus on segmentation of the operating expenses accounts ($10,000,000) between the three TPUs.

In scenario 1, the tax team has limited data access and limited internal resources. The segmentation is managed manually with a simplistic approach using generic segmentation bases. Sales & Marketing cost is split using revenue. Production costs is split using cost of goods sold. And Admin cost is split evenly between the three TPUs.

In scenario 2, in contrast, the tax team pulls data directly from a tax data warehouse. Each cost line is split based on rules agreed to by the finance team and the tax team taking into account headcount, functional roles, cost centres, production volume, specific projects, etc. for maximum precision. This allows for a multi-tier approach where relevant. The calculation is automated for maximum efficiency and traceability.

Scenario 1: Formula-based approach

P&L	Segmentation	Legal entity	Sales TPU	Manufacturing TPU	Service TPU
Revenue	-	**50.000.000**	**30.000.000**	**15.000.000**	**5.000.000**
COGS	-	40.000.000	25.000.000	12.000.000	3.000.000
GP	-	**10.000.000**	**5.000.000**	**3.000.000**	**2.000.000**
OpEx		**9.000.000**	**4.554.167**	**2.816.667**	**1.629.167**
Sales & Marketing	Revenue	2.000.000	1.200.000	600.000	200.000
Production	COGS	3.500.000	2.187.500	1.050.000	262.500
Admin	Even split	3.500.000	1.166.667	1.166.667	1.166.667
EBIT		**1.000.000**	**445.833**	**183.333**	**370.833**
EBIT %		**2%**	**1%**	**1%**	**7%**

The segmentation in scenario 1 is too simplistic and the tax team is accumulating a structural tax risk.

The sales TPU reports 4% EBIT in scenario 1 and 4% in scenario 2, while the manufacturing TPU reports a 1% EBIT in scenario 1 and minus 11% in scenario 2. The service TPU reports a 7% EBIT in scenario 1 and 28% in scenario 2. While EBIT may not always be the preferred profit level indicator (PLI), the two tables show the difference in numbers on a like-for-like basis.

The segmentation ion scenario 2 is a dynamic and precise allocation of operating expenses, reflecting the complex realities of the business's operational structure. It contrasts with a manual system where such detailed allocations would require extensive manual calculations, cross-departmental coordination, and would be prone to inaccuracies due to the dynamic nature of the factors involved.

Achieving this granularity necessitates a system capable of interpreting and applying specific business rules to the recognized data formats.

This method is a significant advancement from conventional manual processes that depend on spreadsheet formulas and reduced risk manual data entries—processes that are not just labour-intensive but also vulnerable to errors.

The value of the tax data warehouse is therefore clear in terms of not only maximising process efficiency, but also in relation to reducing errors and increasing data integrity and reducing risk.

Intercompany
Copenhagen 2023

Scenario 2: Rule-based approach

P&L	Segmentation	Legal entity	Sales TPU	Manufacturing TPU	Service TPU
Revenue	-	**50.000.000**	**30.000.000**	**15.000.000**	**5.000.000**
COGS	-	40.000.000	25.000.000	12.000.000	3.000.000
GP	-	**10.000.000**	**5.000.000**	**3.000.000**	**2.000.000**
OpEx		**9.000.000**	**3.750.000**	**4.650.000**	**600.000**
Sales & Marketing	Rule	2.000.000	1.750.000	150.000	100.000
Production	Rule	3.500.000	-	3.500.000	-
Admin	Rule	3.500.000	2.000.000	1.000.000	500.000
EBIT		**1.000.000**	**1.250.000**	**-1.650.000**	**1.400.000**
EBIT %		**2%**	**4%**	**-11%**	**28%**