

# A BRIEF GUIDE TO INNOVATING TAX WITH ANALYTICS

How to Flip Data from a Process  
Liability to an Analytical Asset

TAX ANALYTICS WHITEPAPER

TAX PROFESSIONALS AND DIRECTOR/  
VP LEVEL MANAGEMENT



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# TAX IS INUNDED WITH DATA

With the tax function sitting as one of the largest consumers of data in most organizations—not only core balance-sheet data but also data from other transactional systems—processes need to scale for growth.

Tackling everyday data challenges such as sales tax regulatory filings, account reconciliations, compliance, and audit is difficult enough. But the extremely manual nature of gathering data reduces your team's time to mine that data for value, which means there's no time to discover ways to reduce risk while increasing value and generating proactive insights such as tax savings opportunities.

Tax functions spend **more than 50% of their time gathering tax data, and less than 30% of their time on strategic tax analysis**, with less than 5% of the budget spent on technology. 77% of tax functions in a MAPI survey do not have a tax technology plan or plan to develop one.<sup>1</sup> Those numbers tell a compelling story.

<sup>1</sup>Unlocking the power of data and analytics

# CRUNCHING THOSE NUMBERS

Capitalizing on your reams of tax data and transforming it into actionable insights—everything from predicting tax obligations to automating expense allocations to calculating apportionments—seems out of reach when you're mired in a data swamp of spreadsheets and databases. If tax professionals across your organization don't embrace modern tax analytics, you'll miss out on the game-changing benefits of a strategic approach.

Without building a tax analytics competency, many of the most common tax challenges including transparency and strict reporting requirements, tax data stored in multiple locations, and manual data collection and cleansing will get backlogged or go unresolved.

Plus, with data science evolving at a tremendous pace and outstripping the capabilities of traditional analytics departments, performing **advanced analytics**—AI, machine learning, prescriptive, and predictive analytics—is a lot easier when you've first tackled the common data challenges resolved with basic self-service analytics. Going big with your analytics strategy means using an end-to-end modern platform to build a sustainable and holistic tax analytics strategy.



Aberdeen research shows that 33% of financial leaders indicate the need for faster information delivery and analysis.<sup>2</sup>

Aberdeen recommends that all companies interested in improving their tax management and reporting performance should invest in an analytics solution immediately if they want to become Best-in-Class.<sup>3</sup>

## FIVE PROCESS LIABILITIES DEPRECIATING YOUR OUTPUT

**Large or small, global or local, companies of all sizes and in all regions tend to struggle with similar data issues. Which of these five tax data challenges sound painfully familiar to you?**

### 01 Process Liability #1: Finding Tax Data

More than 50 percent of time is likely spent searching for and reviewing non-integrated data, according to the PwC report on the “Tax Function of the Future: Unlocking the power of data and analytics.”<sup>1</sup> Because tax data is housed in multiple locations like ERP, consolidation systems, billing systems, commerce platforms, etc., it can be challenging for your team to find all the critical pieces.

### 02 Process Liability #2: Manually Reviewing Data

Manually reviewing, reconciling, and manipulating tax data for tax purposes slows down the time to insight. Manually reviewing data usually means locating disparate volumes of tax data often created in multiple instances and stored in different systems. These manual processes increase the risk of errors, inconsistencies, or incomplete data sets that make it hard to find, analyze, and manage.

### 03 Process Liability #3: Wrangling Tax Data Sources

Pulling from different data sources to find your insight is often necessary but that data might be inconsistent. Combining disparate data to solve problems and find answers that offer insight in the form of filings, reports, or a presentation at an upcoming meeting can be a time-consuming, manual job—one that gets done in the nick of time but keeps you burning the midnight oil longer than you’d like.

### 04 Process Liability #4: Maintaining Audit Trails

Are you ready for the next audit? It’s not enough to show the output. You must share the formulas and data sets behind the final reports. Proving your work for complicated processes like State Apportionment in a shared Excel spreadsheet can be laborious and error-prone—not good for you or your department.

### 05 Process Liability #5: Increased Transparency and Stricter Reporting Requirements

Your team is on the hook to demonstrate a single source of truth that aligns with recognized accounting standards like GAAP or IFRS. It’s essential that you feel at ease with the information you’re sharing, and chances are you’re spending timely cycles identifying and reconciling inconsistencies to build that confidence.

<sup>1</sup> Unlocking the power of data and analytics

<sup>2</sup> [Maximize Your Tax Management Performance with Superior Analytics Capabilities](#), Aberdeen Group

<sup>3</sup> [Maximize Your Tax Management Performance with Superior Analytics Capabilities](#), Aberdeen Group

# GO BIG OR GO HOME

It's time to move beyond manual processes before the skillset of your tax team depreciates in value.

Building an analytics competency in tax doesn't mean throwing away coveted Excel skills; now you can put those skills to optimal use.

Take control of your tax challenges and transform your team's focus from manual data-gathering and spreadsheet-driven data manipulation to a repeatable, collaborative process using **self-service analytics**.

If you're used to difficult-to-maintain spreadsheet solutions, you'll quickly see the value of evolving your process. Go from worksheets to workflows with visual, repeatable, self-service analytics as the answer to a robust tax strategy.

## SELF-SERVICE ANALYTICS

*[self-sur-vis an-l-it-iks]*

A modern platform for building a sustainable and holistic tax strategy. Discover, prep, and analyze data, then deploy and share analytics at scale for faster and deeper insights than you ever thought possible.

## ACCORDING TO THE PWC REPORT

“The Tax Function  
of the Future.”

“Tax functions can  
benefit significantly  
from rolling out  
BI self-service  
and reducing  
their reliance on  
traditional, hard-  
to-maintain Excel  
reports and multi-  
sheet workbooks.”<sup>1</sup>

## 5 WAYS TO FLIP YOUR ASSETS TO LIABILITY RATIO

Here are five specific, easy-to-implement ways to flip your assets to liability ratio—increasing the value of contributions from you, your team, and data right now.

### 01 Analytic Asset #1: Tax Data within Reach

Stop wasting more than half of your time readying data for analysis. Quickly clean data from any source, including multiple ERPs, consolidation systems, billing systems, commerce platforms, and more.

## DITCH SUPERFLUOUS HOURS IN STATE INCOME TAX FORMULA APPORTIONMENT

With multiple business units and new acquisitions, the large datasets involved in computing State Apportionment may exceed the row limitations in Excel and require normalization to create consistency.

Your process might involve spending hours cleansing original sales data from one or multiple ERPs to create the sales factor, retrieve data from your payroll system to determine the payroll factor, and more.

### USE SELF-SERVICE ANALYTICS TO:

- Cleanse original sales data from your ERPs, determine appropriate jurisdiction, allocate manual journal entries, etc., to create sales factor
- Pull information from your ERPs (i.e., fixed assets and rent expense) to create property factor
- Pull information from a payroll system to create payroll factor
- Combine all apportionment factors to create state apportionment percentages at each subsidiary and a combined level

### 02 Analytic Asset #2: Reusable Tax Data

Reducing time spent manually gathering data, business and legal entity reconciliation, and tax reporting means more time to do higher-value work like performing multiple analyses of transactions and tracking these transactions over time to allow for continual dynamic monitoring. Moreover, you have time to try out predictive modeling, allowing you to run scenarios that identify and structure opportunities for future growth.

<sup>1</sup> Tax Function of the Future, PwC

“Over the last two years, Best-in-Class [in tax and finance] organizations have also reduced the amount of time required to maintain compliance by 75% less than All Others.”<sup>1</sup>

## SHAKE UP YOUR STATIC REPORTS

Are your tax calculation results highly aggregated and documented in static reports like PowerPoint or Word, requiring these deliverables to be manually updated each time data is refreshed?

Sharing spreadsheets across multiple users minimizes end-user functionality to dynamically interact with the most current data.

### USE SELF-SERVICE ANALYTICS TO:

- Source, join, process, and analyze tax data from disparate sources, making it easier than ever to save, share, repeat, or schedule workflows to automate data blending, processing, updates, or regularly refresh analysis and output to any format
- Flow data into a visualization solution to produce easy-to-read, accurate and timely reports and improved data insights in web and mobile-enabled dynamic dashboards

## 03 Analytic Asset #3: Combinable Data Sources

When analysts and business users are given the ability to combine all tax data using a self-service analytics solution, you get incredible efficiency and accuracy unmatched by traditional approaches. This is crucial to understanding anomalies before and after meeting compliance requirements. Prepare to gain connectivity to sources and targets, drag and drop visual workflows, and repeatability through reuse and sharing. Now you can maximize productivity and trust the data along the way.

## INNOVATE ON RESEARCH & EXPERIMENTATION TAX CREDITS

Is your team spending multiple hours each month/quarter/year using Excel to calculate R&D Credits? Manually cleansing and blending data from HR and Finance systems every time you run reports to calculate estimated tax payments sucks up hours of your team's time at crunch time.

### USE SELF-SERVICE ANALYTICS TO:

- Leverage prior R&D credit studies/projects to create estimates of qualified research expenditures
- Use a recently-issued IRS directive for taxpayers that computes R&D credits from using expenses in audited financial statements (i.e., IR-2017-158, Sept. 22, 2017) to create estimates of qualified research expenditures
- Optimize ROI with time savings, better insights, and adjustments to estimated taxes so you don't pay too much or too little on quarterly estimated tax payments

<sup>1</sup> [Maximize Your Tax Management Performance with Superior Analytics Capabilities](#), Aberdeen Group



# IN REAL FORM:

## TWO COMPANIES TRANSFORMING R&D CALCULATIONS WITH ANALYTICS

**One multinational manufacturing company** transformed the way they calculated a qualified R&D percentage for each research employee, delivering a repeatable and defensible calculation as well as saving 21 staff days per quarter. This workflow also shifted the partnership with tax using self-service governed analytics.

**Another multinational semiconductor company** spends hundreds of millions of dollars on R&D. Their tax team was burdened with identifying the correct deductions for all related line items via Excel. Their data is now analyzed by the team to more accurately increase tax advantages and also reduce their time spent on this cumbersome process by 90% using Alteryx.

“Best-in-Class  
[in tax and finance]  
companies  
demonstrate  
superior  
performance in  
their tax compliance  
metrics with higher  
accuracy, fewer  
penalties, and less  
exposure to said  
penalties.”<sup>1</sup>

## Analytic Asset #4: Automatic Audit Trails

Imagine if you could get a complete analytical view of audit processes across compliance: fraud detection and investigation, risk assessment, operational performance, and internal controls.

With a self-service analytics platform, it's easy to perform end-to-end process testing and control validations plus lower existing and future audit costs through scheduling and automation of data collection, preparation, and analysis.

You'll produce earlier identification of high-risk patterns in spending, codes of conduct, and across a network of partners and suppliers, leading to enhanced audit coverage and better management of risks and controls.

## “BEAT” AUDITS WITH BASE EROSION AND ANTI-ABUSE TAX (BEAT) ANALYSIS

Base Erosion and Anti-Abuse Tax (BEAT) Analysis might be a critical part of your tax data analysis. If so, what's your plan for BEAT? Are you using manual Excel processes and pulling data from unstructured sources to run reports for analysis?

Reduce your reliance on traditional, hard-to-maintain Excel reports and multi-sheet workbooks and stop exploring proprietary data sets and unstructured data. You can now automate the process to make it more reliable and faster than the traditional Excel approach.

### USE SELF-SERVICE ANALYTICS TO:

Pull information from your ERP and group intercompany payments based on type (COGS, SCM, etc.), broken down by the entity level and reported at both gross and net

<sup>1</sup> Maximize Your Tax Management Performance with Superior Analytics Capabilities, Aberdeen Group

## 05 Analytic Asset #5: Tax Data You Can Trust

Trusted insight starts with data that is complete and statistically sound. Easy-to-read visuals that show the distribution of the data, as well as grade the completeness of each value, give you confidence in the integrity of the data and in uniting all team members and decision-makers around a single source of truth.

### OWN NET OPERATING LOSS LIMITATION CALCULATION

The requirement for a corporation to comply with Code Section 382 can be a laborious process without self-service analytics. Who wants to determine the limit on the amount of income in future years that can be offset by historic net operating loss (NOL) carry forwards after a corporation has undergone an ownership change manually?

Done manually, time is zapped from delivering on the critical business insight you need. Using an adjustable and customizable analytic workflow can help streamline the process and deliver insights faster than ever before.

#### UPSCALE YOUR CONSULTANT CONVERSATIONS

#### GET THE MOST VALUE FROM YOUR TAX CONSULTANT PARTNERS:

Strategize about additional income opportunities and risk avoidance instead of spending most consultant hours on audits. With confidence in your past, you can plan for the future.

#### USE SELF-SERVICE ANALYTICS TO:

- Create a rolling capitalization table to track “owner shifts” to determine whether, and if so when, an “ownership change” occurred
- Create schedules tracking NOL utilization, segmenting by year of use and expiration, applying any limitations from ownership changes

## 3 MORE WAYS TO INNOVATE TAX WITH ANALYTICS

### 01 Democratize your data

One petroleum and natural gas exploration and production corporation had tax data sourced from multiple environments, including close to **80 million records with upwards of 50 columns each from SAP** and other databases. Using the Alteryx SAP connector, they were able to put this kind of facility in the hands of departmental tax analysts to be able to answer requests from the IRS without the need to involve IT, or other intermediaries. Empowered analysts can now also process data for inclusion in partnering BI platforms like Tableau, Qlik or Power BI to support monthly and quarterly reporting.

### 02 Put reports on auto-pilot

One global Canadian business providing management and consultancy services had a challenge to bring quarterly project data from seven different regional ERP systems into a single Power BI dashboard. Each ERP extract was provided in different Excel formats, with its own inconsistencies, formatting styles, and local currencies. Standardization to a single reporting currency was required and data hygiene issues (i.e. blank cells leading to “division by zero” calculations and split lines/columns) further decelerated this team from delivering.

The legacy process was like a new puzzle every time for the tax analyst, **with a full day wasted every week** to run lookups and cut and paste large amounts of data, only to do it again the next week. Now their analysts prepare and analyze large, complex tax data sources with ease. They are freed up to use the same analytical platform in more compelling ways like other forward-thinking tax organizations, including exploring Robotic Process Automation (RPA) in the preparation of tax reports for filing and compliance.

### 03 Automate daily data prep

By taking existing data transformation and cleansing processes that were previously run in Excel, one of the largest US distributors of plumbing supplies was able to make considerable efficiency savings in their tax processing pipeline, **from a 5-hour daily process down to only 10 minutes.**

# IT'S TIME TO LIVE OUT YOUR TAX MANIFESTO

- .01 TURN DATA INTO ASSETS:**  
Deliver the insights your business needs
- .02 ELIMINATE HIDE-AND-SEEK:**  
Combine multiple tax data sources pain-free
- .03 THRILL YOUR TEAM:**  
Stop manually reviewing data
- .04 SLEEP LIKE A BABY:**  
Be prepared for any audit, any time
- .05 MAXIMIZE YOUR CONSULTANT HOURS:**  
Strategize for the future, not the past

DECLARE  
YOUR NEW TAX  
STRATEGY

## ABOUT ALTERYX

Revolutionizing business through data science and analytics, Alteryx offers an end-to-end analytics platform that empowers data analysts and scientists alike to break data barriers, deliver insights, and experience the thrill of getting to the answer faster. Organizations all over the world rely on Alteryx daily to deliver actionable insights.

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Don't let traditional approaches hold you back. Transform your tax strategy with a solution that equips your team to redesign, rediscover, and reimagine.

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STARTER TEMPLATE

