

SO IS HOW IT'S USED

# XBRL Data Is Evolving

The CFA Institute publication, *Data and Technology: How Information Is Consumed in The New Age* addresses the consumption of structured data. Long heralded as a boon to analysts and investors alike, structured data is now fulfilling this promise. In this paper we look at which data are available and how data are being consumed. Further, we refute the claim by some that the data are not being used.

By Mohini Singh

## COMPETENCE CENTER XBRL.CH

XBRL.CH is an association that promotes the utilization of XBRL on a national and international level. Sabine Prodan, Head of Business Development at MDD, and Prof. Dr. Marco Passardi, Lucerne University of Applied Sciences and Arts, are co-presidents. Initiated by MDD, the association has been working on setting up an XBRL competence centre since June 2018. The aim is to disseminate the topic of XBRL to all potential stakeholder groups, to promote a positive image and to interlink the individual stakeholder groups in order to create a basis on which innovative solutions with XBRL are developed and used in Switzerland.

For more information contact Sabine Prodan at [www.xbrl.ch](http://www.xbrl.ch)

## Consumption of Regulatory Filings

Regulators, such as the US Securities and Exchange Commission (SEC), currently have adopted, and as of 2020, the European Securities and Markets Authority will adopt, rules requiring companies to provide financial statement information in an interactive format i.e., using eXtensible business reporting language (XBRL), a global digital standard for exchanging business information.

The SEC Financial Statement and Notes Data Sets provide the text and detailed numeric information that offer investors a trove of useful data points. For analysis, the website has some useful tools that, for example, allow text and numeric searches across multiple filings, freeing users from the need to search one filing at a time and aggregate their findings. Analysts can also download these files into Excel for financial analysis.

The sheer amount of information contained in the 1.5 billion pages of documents filed each year beckons the application of artificial intelligence (AI). The pervasive incidence of document downloads by “bots” – about 85% of the time – speaks to the desire of investors and analysts to apply AI in their work. For now, however, data quality issues do exist. Examples of data issues include incorrect use of negative values, incorrect fiscal years, and incorrect or inconsistent tagging/structuring.

## Data providers

Various data providers are building increasingly advanced consumption tools. Data providers have explained how they pull the data from XBRL filings, normalize and clean it from the aforementioned errors, and present it to users in a manner that allows easy access and immediate analysis as well as the ability to export it into an Excel spreadsheet.

A great deal of textual information in a regulatory filing also can be presented in a structured manner and more easily consumed by investors. These data providers build upon the XBRL technology to further tag and improve the readability and usability of financial documents, for example by tagging non-GAAP information, items such as product warranty accruals; the management discussion and analysis (MD&A); earnings releases; regulatory comment letters; and environmental, social, and governance (ESG) data.

Data providers build these tools to meet user demand for greater structuring of information. Structuring the earnings release, for example, allows users to export data from the earnings release directly into documents or into an Excel-based financial model. Users then can perform side-by-side comparisons of preliminary income statements against previously reported numbers, without having to manually input the data. This simplifies the process for financial analysts and reduces errors and the time

spent pulling information manually for multiple companies. Analysts, for example, might also want to see whether similar companies have received regulatory comment letters and how to avoid the same pitfalls. Other investors might want to review the MD&A of a given company – for example Facebook – to identify the number of active users or apply machine learning to block-tagged text to identify early adopters of the new revenue recognition standard.

Because of the analytical power and flexibility structured data offers, some regulators are mandating that structuring be extended. Recently, the Netherlands has required companies to file XBRL-based annual reports with an accompanying electronically signed XBRL-formatted auditor’s opinion.

## Illustrations

Here we present an example of how an investor or analyst might analyze revenue under the new revenue recognition standard. In this example we show how the CalcBench platform allows users to systematically retrieve information with just a few mouse clicks. Suppose an analyst wants to know how the numbers have been affected by a change in the revenue recognition policy by comparing Microsoft’s Income Statement from the first quarter of calendar year 2018 (fiscal 3Q for Microsoft) to the originally filed statement from the first quarter of calendar year 2017.

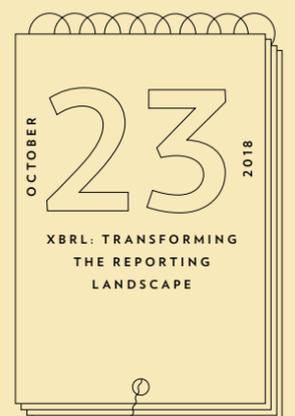
All one has to do is enter Microsoft’s ticker symbol, select the income statement, the period, and “as originally reported” and out pops the information. Microsoft’s originally filed numbers in April 2017 was product revenue of \$13.391 billion and service revenue of \$8.699 billion. Switch off the “as originally reported” button and the revised numbers under the newly adopted revenue recognition rules for product revenue from one year ago is now \$14.513 billion—a difference of \$1.122 billion. The impact to diluted EPS was roughly \$0.09 per share. This case study shows the power that derives from structured data. Users save time, money and increase the power of the inferences they can make, which is the value information is designed to deliver.

## Conclusion

In sum, XBRL is useful because it provides analysts with a fully searchable database of line-item details from regulatory filings. The information is available for searching, analyzing, and comparing over time and across companies. This is the information that investors have always sought. But now, thanks to greater incidence and sophistication of structured data, and the proliferation of tools to leverage its power, investors and analysts are now finally getting what they want.



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Powered by MDD

Mohini Singh, CFA Institute, will shed light on topics that matter in financial reporting. The workshop will also deal with data assessment and provide a practitioner’s view.

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