

Big Data, a smart way to governance.

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The European fund industry has often been criticised as having very little standardisation and therefore lacking in economies of scale. When compared to other jurisdictions that use pooled vehicles as investment mechanisms for investors, Europe has literally thousands of fund structures which often attract only a few investors, resulting in lower assets under management. The 2008 financial crisis placed the entire financial industry under enhanced scrutiny from politicians, regulators and investors, which resulted in the creation and enactment of new regulations by the authorities in various jurisdictions such as Dodd-Frank, FATCA, UCITS V, and AIFMD.

These initiatives have been considered by some market participants as a barrier to doing business and nothing more than an additional cost to be borne by investors, instead of achieving the aims they were created for. Complying with these rules is an on-going challenge for administrators, depositaries and transfer agents, who have seen asset managers demanding cost reductions for fund services in order to improve funds' performance, squeezing the profits of the service providers.

The evolving regulatory frameworks and the huge amount of data required to comply and enforce these frameworks is used to enhance transparency and reduce investors' risks by defining and reporting repeated investment vs risk patterns in a simple way that investors can understand or by explaining investment profiles in a simplified format. Considering that the amount of data asset managers and service providers have to store, analyse and report has exploded, this clearly points to the use of Big Data.

The Big Data concept has emerged due to the exponential growth and availability of multiple types of operational information. Big Data analysis is based on factors such as volume, velocity, variety, variability and complexity, with an aim to extract hidden added value i.e. behaviour patterns which could not be observed without vast data pools being available. Big Data approaches offer opportunities to resolve these new and heavy burdens of gathering, calculating, and most importantly reporting on patterns in areas such investment flows, tax and risk, which are identifiable only by analysing huge amounts of data.

New Big Data providers are emerging to meet evolving needs and deliver data collection, formatting, analysis and reporting solutions to the funds industry. The Big Data business model is or will be built on data networking sharing concepts, leveraging data look-through and data management to enhance visibility in investor identification, fraud, taxation and risk management. This article merely touches on several current mainstream possibilities, however many more will develop in the years to come.

Investor profiling maps for tax compliance, liquidity, distribution or investor education purposes

Data processing and analysis required to meet current and upcoming regulatory requirements are no longer manageable in the same way. An asset manager is now required, for tax and investor suitability purposes, to be able to identify the final beneficial investor profile. There are several drivers for this, such as the Foreign Account Tax Compliance Act (“FATCA”), where the US government is looking to identify if US citizens are trying to avoid paying taxes by investing in non-US investment vehicles. The implications of such regulations are being managed with solutions cross-checking shareholder data against regulatory requirements. These solutions require the use of powerful databases to store hundreds of data fields, and allow complex analyses such as dynamic look-through of investment percentages in subsidiaries. Such dynamic calculation processes will build investment profiles of final investors which can identify relevant tax behaviours for certain type of investors.

Demographic data of fund shareholders, like domicile, country of birth, address etc., combined with subscription / redemption amounts and frequencies for an extended time period (10-20 years) would help portfolio managers to estimate liquidity stress levels better. Gathering such data from electronic platforms and regressing it against major liquidity shock events in the past 20 years could be far more relevant than the individual liquidity stress tests provided currently.

Asset managers will have to hold and transmit sensitive data of the final investor. OECD privacy guidelines¹ are being currently applied in several privacy regulations issued by the EU. Big Data approaches will enable segregation and control of sensitive data, allowing access to appropriately authorised parties and to allow regular screening against tax and/or AML criteria.

Additionally, building investor data maps will give asset managers an overview of how investor demographic profiles are changing and help to target the most important distribution channels. There are concerns about investors understanding the regulatory changes that are in motion. The European Fund and Asset Managers Association (“EFAMA”) has recently issued a paper called “**Societal and Economic Impacts of the European Asset Managers Industry, December 2014**”², in which they tackle the role of the asset management industry in the education of fund investors. By developing these investor maps, fund managers can visualise the demographic dynamics of investors to better understand investors’ needs for investment products.

A recent conference organised by the British Chamber of Commerce in Luxembourg, “**Fund Distribution in the Digital Age**”³ raised similar themes, looking at Big Data applications and their role in understanding continual demographic shifts in Europe toward a higher number of retirees, people living longer, younger generations entering the active work force and the need to continually enhance

¹ <http://oecdprivacy.org/>

² “[Societal and Economic Impacts of the European Asset Managers Industry](#)”, EFAMA & EY, December 2014

³ “[Fund Distribution in the Digital Age](#)”, British Chamber of Commerce in Luxembourg, November 2014

retirement product gaps in the market by developing new approaches such as pooled vehicles and in particular pan-European UCITS funds.

New calculation approach using look-through transparency requirements

A Big Data solution would approach data sharing and risk calculations differently better to protect investors. In terms of high-volume data sharing, the concept of the Facebook platform fits perfectly. Facebook employs a “friends” concept and we manage our own connections through the level of data we agree to provide to each of them. We classify our connections as family or colleagues etc. The same principle can work for the funds industry. Imagine a network of asset managers where each of them invites into their space their own clients, service providers, and external entities such as auditors, or regulators for compliance reporting purposes. Each of the contacts is profiled depending on the business relationship and their data needs. The asset manager will be the responsible party for determining the level and frequency of data the various participants of the network will be given access to.

The concept is simple, as it maximises the data exchange, organises the mapping needs and enhances the frequency of data calculations from monthly or weekly to instantaneously. It applies perfectly to a third-party management company structure, like ManagementPlus, in its role of connecting different players to its platforms and rolling up its connections and data received for the purpose of better governance. The solution would also have a role of central fund data repository, as the management company will receive data from the administrator, depository, prime broker and transfer agent, and will disseminate calculated performance and risk indicators to distributors and regulators. Important stakeholders could be connected to the platform where they could be provided with consolidated or detailed data as sectorial exposure and risk indicators, which will be meaningful for institutional investors who are dealing with their own forthcoming regulatory challenges such as Solvency II for European Insurers. The benefits in the short and long term could be tremendous.

Risk calculations could be much more precise and meaningful. Imagine that you can gather data for thousands of transactions from various funds across a specific time period. This could be used to create a benchmark of performance returns against a universe of similarly invested funds. This would give you a more relevant and meaningful risk return report than by analysing a single fund and each investment it has using historic backward performance risk calculations. In addition, risk monitoring will routinely deploy look-through techniques developed through mechanisms used in the development of Real Estate funds and Private Equity funds.

Today, asset managers are often slow in calculating and reporting the risk indicators for their portfolios due to several factors such as data availability, speed of dissemination from service providers, lack of transparency of distribution platforms, and lack of transaction origination specificity due to bulking that overrides single inflows and outflows. Big Data management solutions would considerably reduce such delays or lack of information as fund managers would be able immediately to spot and resolve such data gaps.

Big Data technology offers the possibility to spot patterns and trends and associate these with the behaviour of investors in different distribution channels. Charging models could move towards an outcome based measure for software that will spot patterns in risk and compliance indicators against the universe of funds monitored.

There are several parties that can benefit from the solution. Investors would have the ability to review in real time the risk calculations and indicators. Secondly, the exponential increase of data availability and variability in terms of the indicators would have a tremendous impact in asset managers on their investment decisions and implicitly on their investment volumes. The benefit of using such Big Data platforms would increase if membership is expanded to a wider audience including UCITS and Alternative Funds, to prepare to meet the challenges and opportunities posed by the imminent roll out of new regulations such as UCITS V and AIFMD, which are European Union Directives aimed at investment managers and the funds sector.

Lastly, privacy laws are very important. In the case of required reporting to a regulator, the objectives of the reporting obligation must be weighed against the right of privacy of confidential client data, and fund managers must find a way to balance the equation. A very recent example is the signature on 29 October 2014 of the “**Multilateral Competent Authority Agreement**”, a multilateral agreement on automatic exchange of tax information, by 51 jurisdictions including Brazil, France, Germany, Italy, Ireland, Japan, Luxembourg, South Africa, Spain, Switzerland and the UK⁴. The entities in all 51 jurisdictions should report all accounts agreeing in a type of reporting called a common reporting standard “CSR”. The reporting should start from September 2017 and be exchanged through all 51 jurisdictions. The question is who should bear the cost of such reporting? Should it be the user or the organisations that need access to our data or the governments that want it? It can be argued that all of these options could apply, depending on the planned use.

The facility to perform calculations and the capacity to collect and analyse more wide-spread data sets against individual fund performance is important. Financial industry players such as Management Companies like Management Plus are building their expertise and exploring Big Data business solutions which will increase visibility and transparency, as a solution to strengthen governance and oversight for their clients. Selecting the right partners to work with in this area will be the next challenge and opportunity to increase performance and market share.

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⁴ <http://www.oecd.org/ctp/exchange-of-tax-information/automaticexchange.htm>