The future of asset management in the exponential age

Dr Guenther Dobrauz-Saldapenna, of PwC Legal, discusses the technological move towards the exponential age

As the regulatory tsunami that was unleashed upon the financial services industry following the last financial crisis seems to have mostly calmed down, the industry finds itself facing yet another perfect storm. After the first three industrial revolutions took us from steam engines to mass production and into the computer age with modern IT and communication, we now find ourselves on the brink of the Exponential Age. This is marked by the exponential growth of technologies such as digitisation, artificial intelligence, the Internet of Things (IoT) and cryptographic infrastructures, which will rapidly accelerate and shape major industries and all aspects of our lives moving forward. This will be particularly true for the financial services industry and specifically for asset management, which we would, by and large, consider to be a digital technology laggard but where technology advances will drive quantum change across the value chain.

Will venture capital (VC) be replaced by initial coin offerings (ICOs)? Will the value chain of asset management be radically modified by blockchain technology and will the rise of the machines and, in particular, AI mean an end to investment advice, management and trading as we know it? Will the entire alternative investment industry and its elaborate structures be commoditised by the advent of the tokenisation of assets and will cryptocurrency replace fiat money and challenge the banking system? Or is it all just hype?

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Closely linked to the advances in blockchain technology, smart contracts and cryptocurrencies, ICOs have not only gained significance as a key source for funding early-stage ventures in a short time, but have in the past two years become the main source for blockchain technology-based start-ups. What this means is that on the one hand many worthy investment opportunities have vanished from or completely bypassed VCs' pipelines, potentially making it more difficult for them to achieve their target returns. At the same time the overall risk profile of seed or early-stage innovation funding may likely have been altered in the wrong way by moving from allocation to funds to direct investments via ICOs as, firstly, risk concentration has gone up; secondly, VC expertise and support has been taken out of the equation; and thirdly, allocators have changed from sophisticated investment specialists to a largely retail audience. While there are still many questions surrounding ICOs – chiefly as a result of lack of regulatory clarity – VCs are increasingly waking up to the threat of this faster investment mechanism.

Among the many fintechs built around blockchain technology-based innovations, many target the asset management sector where it is felt that processes are outdated, overly complex, unduly time consuming and expensive. The emergent examples of innovation here include the almost real-time valuation and audit of assets (mostly in low turnover/long only assets such as real estate and private equity), processing transactions in fund shares and executing trades in assets at significantly reduced cost by removing the need for intermediaries or other third parties.

The volume of available data continues to increases at a significant pace making it almost impossible to process it without the support of

simultaneously evolving computing power, predictive analytics, and big data, which are all set to aid every area of investment research.

The days of research teams with scores of analysts will soon be over. Instead, alternative intelligence-powered robotic processes will monitor and analyse every public company, as well as other financial and non-financial data. They can also process supply chain analysis and other new forms of data that asset managers are able to source. Already some alternatives managers are successfully leveraging quantitative strategies and regard themselves, first and foremost, as technology companies.

AI promises to further improve these capabilities but at the same raises the question as to when human contribution may potentially become obsolete. We can already see the first examples of this in systematic trading with its machine-to-machine and largely automated approach, but human managers are still in charge of ultimate decisions, in particular in situations where historical data does not correspond to the reality faced and when it becomes necessary to adapt algorithms or implement immediate risk mitigation measures.

That being said, it is particularly in this area where we can already see the first AI-based systems to significantly outperform human processing and decision-making based on the sheer volume of data which it has become necessary to make sense of. Put differently: traditional trading algorithms were built to exploit specific opportunities, whereas the new generation of algorithms use the power of AI to truly act as independent agents participating in market action or evolve into autonomous, machine-managed funds, and work day and night in a way that humans simply cannot match.

Also, at the man-machine interface we see the importance of technology evolving as robo-advisers are increasingly brought to the table to take over recurring and standard processes, in particular in the retail space at reduced cost and indeed with reduced risk of human error in, for example, areas such as product or client classification, provision of obligatory transparency or documentation.

Exponential technologies will drive quantum change across the value chain of the predominantly digital technology laggard asset management industry

Tokenisation opportunities

There is a belief which I share that digitisation will not only alter the channels of interaction, leverage the crowd and intelligently automate processes, but it will also enable digitised representation of goods and services, creating a generation of digital assets unseen and untradeable before. The key to this is largely in "tokenisation". Anything that can be represented on a blockchain by a unique, unambiguous digital identifier – a 'token' – can easily be made into a smart asset too. It is this tokenisation which, as UBS recently put it in a whitepaper, that offers financial possibilities 'beyond money', with possibilities for tokens to represent anything that has been, and could be, considered as 'wealth'.

A specific advantage of tokenisation is that once an asset is tokenised on a blockchain, it has an immutable digital record. This can include where it came from and every single time it has changed hands. Such unbroken chain of origination and custody makes these assets easy to account for and validate. This is already changing how we handle traditional, physical assets, especially illiquid assets of high value. For example, we have recently seen the appearance of blockchain-based platforms to tokenise expensive, illiquid physical assets like real estate, precious stones, fine wine and art. But it does not end here – it is also entirely possible to tokenise intangible assets, such as intellectual property. We are currently involved in projects to tokenise artistic creations, in particular music, writings, videos and films. This helps creators to better control access, manage distribution, fight fraud and get paid a lot faster, in many cases transferring wealth back from distributors or other intermediaries to originators. At the same time this system could also offer a way for management professionals to develop a clearer view of their clients' total wealth.

Presently we have more questions than answers when it comes to exponential technologies and their potential impact on asset management, but it is essential to have the right mindset which is probably best summarised by a quote from the Burning Man Festival: "The appropriate response to new technology is not to angrily retreat into the corner hissing and gnashing your teeth; it's to ask: "Okay, how should we use this?". HFM