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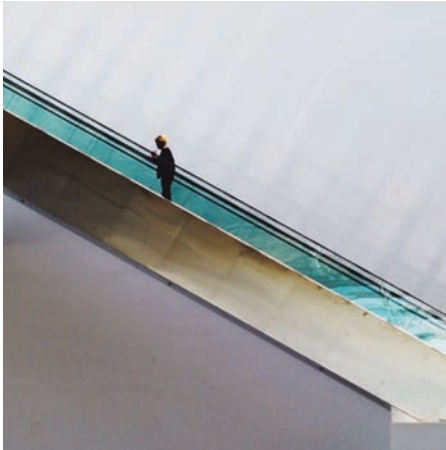
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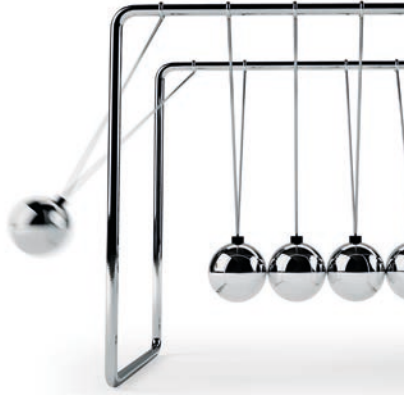
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Modernizing mutual fund reporting for today's environment

Foreword



Fees, a single word that conjures up mixed emotions and leads to countless debates in meeting rooms around the world. Has anyone managed to achieve the right mix or balance of fees? With the continued discussion of active versus passive, high cost versus low costs, is this even possible? These are topics that touch the heart of the investment management industry from asset managers to service providers right through to the end investor.

Perhaps we should spare a thought for the beleaguered investor who now needs a jargon-busting technological innovation dictionary to understand catchwords including digitalization, robo-advice, millennials, big data, and blockchain. Those active in the industry are becoming more and more used to hearing these terms on a daily basis; but do you know the difference between “assisted” and “augmented” management? Are these the next key buzzwords, together with RegChain, to complement RegTech and FinTech? Following on this theme, the US Securities and Exchange Commission, as the primary US regulator of the investment management industry, is launching its modernizing makeover for mutual fund reporting with N-Q being replaced by N-PORT and N-SAR by N-CEN. Full explanations of all these terms are provided herein.

We have all heard of sustainability in a financial context and from an environmental perspective; but what happens when the two are combined together? In this edition of Performance, discover how green finance is keeping the skies blue; for instance, did you know that the first ever sovereign green bond was issued by the Republic of Poland

and is now listed on the LGX? From green we go to red, white, and blue. Despite little progress in the UK since June 2016 regarding Brexit, apart from the triggering of Article 50 of the Lisbon Treaty, the topic continues to dominate the headlines; our article takes an in-depth look at the significant impact that Brexit will have on corporate structures and discusses possible new tax operating models. Continuing our global travels we turn from Europe to South East Asia for insights into financial crime compliance. Regardless of where we are resident and work, the common theme of application of AML/KYC rules, performing gatekeeping activities and dealing with the associated complexities all continue to dominate the already packed agenda of compliance and risk officers.

We trust you have enjoyed this very brief introduction to the captivating collection of articles and interviews, which we hope will stimulate many thought-provoking discussions in your workplace and beyond.

Vincent Gouverneur
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Management Leader

Nick Sandall
EMEA Co-Leader
Financial Services Industry

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Editorial

Dear Readers,

In this edition of Performance Magazine, we reflect the global nature of the investment industry. Irrespective of which part of the investment value chain is the primary focus of executives operating in this industry, they have to stay abreast of global developments. Therefore, in this issue we look across the global investment industry, at the diverse issues that we face today.

From the Executive suite, we have a discussion with Euan Munro, the Chief Executive of Aviva Investors, who shares his perspective on key industry issues, and also outlines the philosophy underpinning Aviva Investors successful Outcome focused AIMS Multi-Strategy fund range. From the front office, we hear from Valentijn van Nieuwenhuijzen, Head of Multi Asset at NN Investment Partners, as he describes how his investment process is informed by behavioural finance and harnesses big data.

EMEA is an important investment management market facing much change. To address that, firstly, Julie Becker, a Member of the Executive Committee of the Luxembourg Stock Exchange describes the newly formed European Commission's High-Level Expert Group on sustainable finance, which presents recommendations for a comprehensive EU strategy on sustainable finance as part of the Capital Markets Union.

Secondly, Brexit is a key European issue for the industry, and Deloitte Partner Gavin Bullock examines the consequences for investment managers in terms of their corporate structures and taxation arrangements.

Turning to South East Asia, the investment industry is becoming increasingly sophisticated and managing financial crime compliance is becoming critical for firms operating in the region.

On the other side of the globe in the US, Deloitte Partner Karl Ehram and his colleagues provide a briefing on the Investment company reporting modernization rule, introduced by the Securities and Exchange Commission on 13 October 2016.

Technology is playing a key role across the investment industry and the final two articles examine the intersection of technology innovation, regulation and distribution. Deloitte, in collaboration with Irish Funds, assesses how blockchain technology could be applied to regulatory reporting requirements.

The final article assesses the potential of robo-advice as we hear from Rahul Sharma on The Future of Automated Financial Advice. Based upon a recent in-depth research report, Sharma shares the attractiveness for customers, describes the advantages, addresses challenges that it raises, and outlines the importance of establishing an appropriate governance regime.

In summary, in this edition of Performance Magazine, we address a wide range of issues that industry executives have to grapple with, ranging from the development of investment capability, managing a changing regulatory landscape, innovation in technology, through to the growing sophistication of the South East Asian industry.

This is a broad ranging edition, befitting a global industry. We hope you find this interesting.



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The quiet revolutionary

Margaret Doyle, Partner at Deloitte UK and Tony Gaughan, the UK Investment Management Leader, had an interesting conversation with Euan Munro, Chief Executive at Aviva Investors on regulation, risk management, and pensions freedom in this ever-changing and politically-challenging time.¹



Euan Munro

Euan is CEO of Aviva Investors and a member of the Aviva PLC Group Executive Committee. He is also strategic adviser on Aviva's AIMS range of portfolios and chairs the Strategic Investment Group, a company-wide forum that approves the investment ideas that populate AIMS funds.

- ¹ The interview took place in March 2017
- ² Euan Munro, speech at the Financial News Asset Management Awards, London, 5 October 2016. See: <https://www.fnlondon.com/articles/aviva-investors-ceo-euan-munro-issues-challenge-to-fund-managers-20161006>
- ³ Ibid.
- ⁴ Financial Conduct Authority, Asset Management Market Study, Interim Report, 18 November 2016. See <https://www.fca.org.uk/news/press-releases/fca-finds-weak-price-competition-some-areas-asset-management-sector>

The chief of Aviva Investors wants to end the fixation on fees. Euan Munro believes that active managers' fees can be justified by great risk-adjusted returns.

Euan Munro is an unlikely revolutionary. The chief executive of Aviva Investors acknowledged late in 2016 that the public views him and his fellow fund managers as "a privileged elite."²

The Scot sympathizes with the public view that "our industry is not interested in the needs of real people."³ His own vision for Aviva Investors is that "everyone should have some sort of specialist skill, so they'll be an expert in infrastructure or credit risk, or equity markets, but they should also remember that what we are building for the end client is not just a fund with a bit of outperformance, but it's something that solves a client's needs."

Munro tells Deloitte bluntly: "I don't really think there are very many examples of asset management firms that have that ethos right through the organization."

In Munro's opinion, none of the industry, policymakers, or regulators, with their focus on fees, have got it right. The huge growth in passive investment vehicles, such as low-fee exchange-traded funds (ETFs) that track benchmark indices like the FTSE 100 or America's S&P 500, is one of the most glaring symptoms of the problem, in his view.

Munro, as the CEO of a traditional active fund manager, acknowledges that these kinds of passive vehicles have their place and, indeed, uses them himself. However, that place is simply as "vehicles through which you can articulate a view," he argues.

Regulatory oversight

While critical of his fellow fund managers, Munro also feels that regulators are misguided in their approach. The UK's Financial Conduct Authority issued a critical report on the industry in November 2016, accusing it of failing to justify high fee levels.⁴

Munro believes the focus on fees to be fundamentally misguided. "It's easy to look at fees," he declares, "but it's not actually answering any questions."

"We are in a world where, as an active manager, you have to preface everything you say with 'Past performance is no guide to the future.' If you're not allowed to lean on that, explicitly or implicitly, the only thing you can point to is fees," he elaborates.

"If you're projecting forward on higher fees or lower fees, you get the kind of ridiculous numbers that this manager would charge you—over your lifetime, one hundred thousand [pounds] more than another one. That might be worth it if you get a better outcome. It's very difficult to prove ex ante that you are going to get a better outcome. But what you can do, right now, is prove that you are not taking more risk. That should really matter, and it doesn't seem to matter in the policy debate right now."



“If the recent market events have taught us anything, they have taught us the danger of what might have been considered to be low probability but high impact events—tail risks.”

Risk management

The absence of adequate risk management is one of Munro’s beefs with robo-advice, touted by many in policy circles as the solution to Britain’s looming “advice gap,” where millions of people need advice, but are unable or unwilling to pay for it.

We ask whether robo-advisers can bridge the gap between passive investment and the sort of outcome-focused management as advocated by Munro. Robo advocates say that their algorithms can (cheaply) assess clients’ risk appetites before allocating assets to different passive portfolios to obtain an outcome that matches their aspirations. Munro is deeply skeptical.

He is concerned that automated advice is built on flimsy foundations. “One of the things I worry about with robo-advice is the risk of over-fitting on historic data,” he says. “So, you can take in twenty, thirty years of data and look at the correlations and interactions between different asset classes and come up with something that looks optimized. But the data you’ve pulled in, if you just looked at the last twenty, thirty years—you have looked at a massive bull run in long-term and short-term interest rates.”

He adds, “I fully expect that the correlations and interactions between bonds and equities, for example, will change quite significantly and perhaps dramatically from history, once we’ve completed this journey from a world where interest rates are seven, eight per cent, falling to zero, and as we move into a world where interest rates are either low and stable, or rising.”

Munro warns, “If the recent market events have taught us anything, they have taught us the danger of what might have been considered to be low probability but high impact events—tail risks.”

Munro’s broader concern is that the industry is obsessed with meeting (or beating) index benchmarks, with little regard for the risk involved in doing so.

Munro’s own particular interest and expertise, stemming largely from his actuarial training, is in risk management. He fears that a number of trends in the industry—the stampede into passives, the asset allocation metrics in “balanced” retirement funds, and the algorithms underlying most robo-advice, tilt too many portfolios toward stocks, which he feels expose investors to avoidable risk.

By contrast, Munro says, “I am building funds that are targeting an outcome of five percent over cash. There is absolutely no way I can guarantee that that will be the outcome. What I can absolutely validate is that, whether you use value-at-risk or scenario stress testing, the portfolio is less risky than a balanced fund.”

Pensions freedom

Munro understands that the questions of investment risk and return have become ever more important in the UK, thanks to the rise of defined contribution pension funds and the new freedoms that investors have over their pension pots from the age of 55.

Munro welcomes “pensions freedom,” even though it has dented profits at bigger life companies, like Aviva. He also acknowledges the contradiction in introducing pensions freedom so soon after auto-enrollment, which “nudges” individuals to invest in workplace pensions. “I do see the illogicality of encouraging people into auto-enrollment and then, at retirement, allowing a free-for-all,” he admits.

However, "I am more of a libertarian," he declares. "As long as there is a minimum level of state pension and benefit, then people should be able to use their own capital accumulated as they see fit." He also points out that the context for the pensions freedom move was one of extremely low annuity rates: "What I don't like is forcing people to, for instance, buy an annuity when interest rates are ridiculously low when we're in an environment where central banks have pushed bond yields down to a level where it's ruinous for people to buy an annuity."

However, Munro acknowledges that investing is tough for most people, given low levels of financial literacy. He says, "I do like the idea of auto enrollment and encouraging people to build up funds, and even some element of compulsion, like the Aussie model." He adds, "Encouraging people to save has got to be a good thing to do from a societal point of view, but not being too doctrinaire about what investment philosophy you're going to impose on people." ➔

The absence of adequate risk management is one of Munro's beefs with robo-advice, touted by many in policy circles as the solution to Britain's looming "advice gap," where millions of people need advice, but are unable or unwilling to pay for it.



Munro believes that non-profit maximizing players have produced a number of badly mis-priced assets.

**Market efficiency?
(Inefficient markets hypothesis)**

The rise in low-fee passives reflects an underlying view that markets are efficient. If markets are indeed efficient, managers cannot beat the market, the argument runs, so investors should focus on the one thing they can control: costs.

Munro challenges the notion that markets are efficient. He accepts that efficiency may provide a gravitational pull on asset prices, but contends that “for a long time, markets can stay away from equilibrium.”

Munro obsesses about “the marginal investor, and what might be their motivations,” declaring, “I get very excited if their motivation is not to maximize return.” These non-profit maximizing players give active players like Aviva Investors their chance to make money.

Fortunately for Munro, this club includes some very big investors, such as central banks performing quantitative easing (QE), the purveyors of structured products, and insurers hedging their liabilities.

Munro is angry that Warren Buffett, the legendary value investor, advised his own heirs to put 90 percent of their legacy into “a very low-cost S&P 500 index fund.”⁵

Munro declares, “I think it’s arrogant of Warren to assume that when he dies, active management dies with him.” In his case, Munro is building a team, one with collaboration and cross-fertilization of ideas—what Munro calls “joining the dots” at its heart. It is this collaboration that allows Aviva Investors to profit from its unconstrained mandates, he suggests.

5 Warren Buffett, Letter to Shareholders, 28 February 2014. See p. 20, <http://www.berkshirehathaway.com/letters/2013ltr.pdf>



Mis-priced assets

Munro believes that non-profit maximizing players have produced a number of badly mis-priced assets. Chief among these are developed market bonds, which Munro describes as “insanely expensive.” US equities are also expensive in comparison to Europe and even Japan. By contrast, Munro says, “I really do like emerging markets at the minute.”

Munro is not forecasting a recovery in sterling, which had depreciated by more than 15 percent against the dollar since the UK voted to leave the EU on 23 June, 2016. He feels that the uncertainty during exit negotiations will keep the currency subdued. However, he also believes that the Bank of England may be forced to raise rates to combat imported inflation, preventing a further downward lurch in the pound.



Political risk

The future of the British pound might also be affected by the prospect of a second Scottish independence vote. We meet Munro days after Nicola Sturgeon, Scotland’s First Minister, had called for a second referendum, and before Theresa May had responded. The UK Prime Minister declared that “Now is not the time,” attempting to stave off a vote at least until after the Brexit negotiations had concluded.

Munro acknowledges that the prospect of independence had to be factored into the group’s strategy and investment approach. “I think political risk is massive,” he says, adding, “There is some serious risk that we fracture into little mini-states.”

With regard to the fund management industry (historically large north of the border) and independence, he asks: “For big firms like us, how matched are our liabilities? Do we have too many assets in Scotland versus our liabilities? These are things that historically wouldn’t have been built into models. We’ve had to build them in fast.”

Munro acknowledges that events such as the Nationalists’ strong showing in Scotland and the Brexit vote in the UK were not unique, but are part of an apparent shift toward isolationism, including in the US.

The rise of such political risk in the West makes Munro even more comfortable with political risk in emerging markets. He points out that he can get a two to three percent real return in local currency bonds in markets like South Africa or Turkey, which “is pretty attractive when developed markets are delivering negative real yields.”

Munro feels that taking such a risk is not merely acceptable but necessary for him to achieve customers’ goals. He declares: “My vision is that I want to build solutions that give the outcome that customers really need, which is not necessarily delivery of a return identical to the FTSE All Share or the S&P 500, but delivery of a level of return that allows them to retire in dignity and, when they come to retirement, they have a level of income that is sensible, which is no small feat in a zero-interest-rate world.” ●

To the point:

- **Passives:** ETFs and passives are tools, vehicles through which you can articulate a view.
- **Robo-advice:** One of the things I worry about is over-fitting on historic data.
- **Politics:** I think political risk is massive. There is some serious risk that we fracture into little mini-states.
- **Scottish independence:** Do we have too many assets in Scotland versus our liabilities? These are things that historically maybe wouldn’t have been built into models. We’ve got to build them in, fast.
- **UK pension policy:** I do see the illogicality of encouraging people into auto-enrollment and then, at retirement, allowing a free-for-all.
- **Pensions freedom:** What I don’t like is forcing people to buy an annuity when interest rates are ridiculously low.
- **Fees:** It’s easy to look at fees, but it’s not actually answering any questions.
- **The Efficient Market Hypothesis:** For a long time, markets can stay away from equilibrium.
- **Sterling:** I don’t think it’s going to bounce back quickly, but I also don’t see it falling dramatically because I think the Bank of England is going to have to respond if inflation stays elevated for longer than they are factoring in.
- **Investment aim:** I want to build solutions that give the outcome that customers really need, a level of return that allows them to retire in dignity, which is no small feat in a zero interest rate world.

Where next? The future of automated financial advice

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Much has been written about how automated advisers, more commonly termed ‘robo advisers’, could disrupt the market for investment advice. But where could they spread? Deloitte recently concluded a primary research project to help answer this question. We examined the potential for automated advice to grow in the UK over the next decade, across the following six markets (see Figure 1).

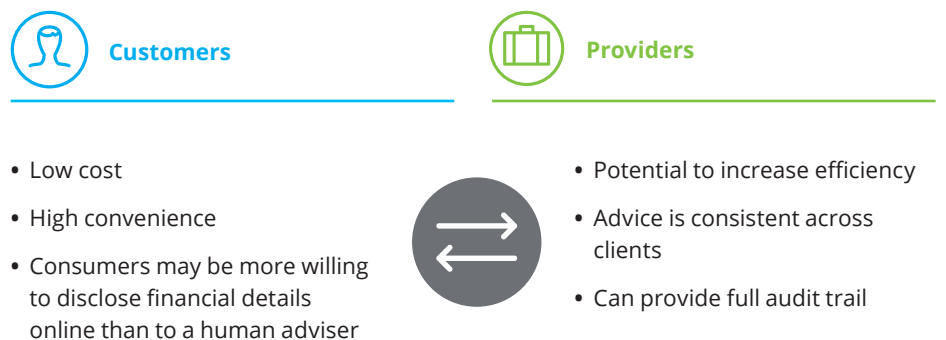
Figure 1. Scope of study

-  **Simple financial planning**
-  **Investing**
-  **Defined contribution pension saving**
-  **At-retirement**
-  **Mortgages**
-  **Individual protection**

The research included discussions with key players and start-ups as well as a Deloitte survey of over 2,000 consumers. In this article we distil our key findings and the major opportunities for players in the investing, defined contribution (DC) pension saving and at-retirement markets. Although our analysis focuses on the UK, and non-UK firms will need to take into account their local commercial, attitudinal and regulatory dynamics, we believe the key trends and findings will be of interest for firms across the EU.

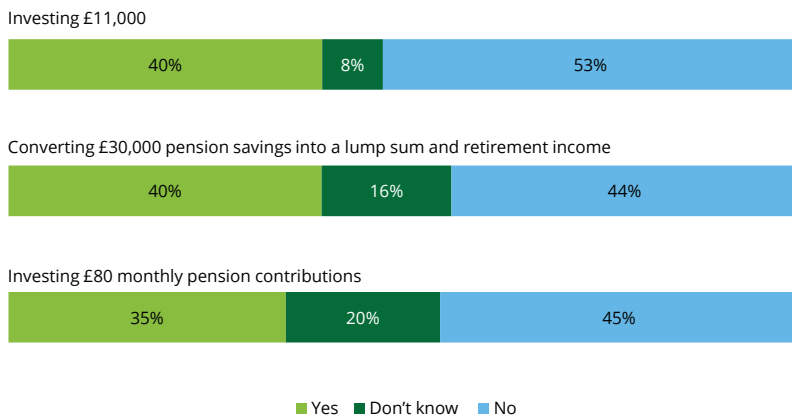
The UK offers a rich opportunity for automated advice. There is a significant ‘advice gap’, driven by the high cost of advice, low financial literacy, low engagement and a lack of trust.¹ With individuals increasingly having to manage their own pensions, automated advice can play a key role in generating low-cost solutions by leveraging its advantages over face-to-face advice (see Figure 2). ➔

Figure 2. Key advantages of automated advice relative to face-to-face advice



¹ The Financial Advice Market Review defined the advice gap as a situation in which consumers are unable to get advice and guidance on a need they have at a price they are willing to pay. Responses to the Call for Input indicated strongly that there is an advice gap, and that this is particularly significant in relation to pensions and savings and, to a lesser extent, protection. *The Financial Advice Market Review Final Report*, HMT and FCA, March 2016 <https://www.fca.org.uk/publication/corporate/famr-final-report.pdf>
See also *Bridging the advice gap Delivering investment products in a post-RDR world*, Deloitte, 2012 <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-fs-rdr-bridging-the-advice-gap.pdf>

Figure 3. Willingness to pay for automated advice by scenario



Source: YouGov 23-24 January 2017, Deloitte analysis. Samples: Finding life insurance (499), investing £11,000 (801), converting £30,000 pension savings into a lump sum and retirement income (163), finding a mortgage (1,100), investing £80 monthly pension contributions (379), financial planning (2,046).

Our analysis suggests there is high potential for automated advice across investing, defined contribution DC pension saving and at-retirement, with over a third of consumers in each of these markets willing to pay for automated advice.

Our analysis suggests there is high potential for automated advice across investing, defined contribution DC pension saving and at-retirement, with over a third of consumers in each of these markets willing to pay for automated advice (see Figure 3).

The amounts consumers are willing to pay, however, are generally low. For example, 68 percent of working DC scheme members who would pay for automated advice would demand a discount of at least 75 percent on the typical cost of face-to-face advice on investing contributions. Pricing these services affordably will therefore be key.

We asked those who were unwilling to pay for an automated solution to explain their motivations. They are similar across the three advice scenarios, and speak to the reassurance consumers seek, as well as the need for an affordable price. A significant number of respondents said they would find it easier to speak to a financial adviser than use a website, implying that building easy-to-use customer interfaces is key to success.

With the exception of at-retirement, more than a fifth of respondents in the other two scenarios said they would not want help with these decisions. In our view this makes it clear that provider marketing will need to educate consumers about the value of advice and tackle low engagement including, but not limited to, financial literacy and inertia.

Despite these concerns, even among those unwilling to pay for automated advice, a tenth or less of respondents in each scenario believe their financial affairs are too complex for a website to handle. While some may well be under-estimating the complexity of their financial affairs, this suggests that if providers can devise and price appropriate services, the market for affordable automated advice could be large.

We believe that coupling many customers with highly efficient and engaging digital solutions will be the key to create the economies of scale necessary to make automated advice both affordable for the consumer and viable for investment managers.

Regulatory risk is also a key barrier. Firms recommending specific financial products based on a customer's individual circumstances are subject to suitability requirements and may be liable to pay redress and potentially regulatory fines if they are shown to have given unsuitable advice. Providers in the UK frequently report that uncertainty in determining which services are regulated is a big inhibitor. The UK Financial Conduct Authority (FCA) is supportive of the development of automated advice models and is planning to publish regulatory guidance and feedback that should help reduce the degree of uncertainty.²

Other regulatory challenges include the clarity of customer communications, the design and oversight of algorithms and cyber risk. Firms will need to adjust their risks and control frameworks and management information to reflect the different customer journeys and to identify, review and manage the different types of risks presented by automated advice. At the same time, automated advice gives rise to potential regulatory benefits.

² In April 2017, the FCA published a consultation setting out proposed guidance to support firms offering 'streamlined advice' on a limited range of consumer needs. In summer 2017, the FCA will publish another consultation on proposed revised guidance on the amended advice perimeter and non-advised services. In summer 2017, the FCA also expects to set out further guidance informed by the Advice Unit's work with firms. For more information, see GC17/4, FCA, April 2017, <https://www.fca.org.uk/publication/guidance-consultation/gc17-04.pdf>

It allows firms to maintain consistency of advice, and provides an audit trail of customer interactions as part of the advice process, as well as an opportunity for firms to make communications more visual, interactive and engaging, including through exploring the use of virtual reality technology.

Investing Opportunity

We believe there is a significant unsatisfied demand for efficient ways to invest smaller sums of money. Forty percent of respondents in our survey would pay for automated advice to help with such investment decisions. This is remarkable in the context of low engagement and financial literacy, and in the absence of any major initiatives by UK incumbents. In addition, even among wealthier investors, cost consciousness is rising and we believe that many will allocate a portion of their assets to a low cost digital adviser.

Barriers

Risk aversion - With many sitting on cash, provider marketing will need to convince potential clients to invest money in higher return assets as well as educate and reassure them about the capabilities of their automated products.

Profitability - Low thresholds will be key to attracting consumers from the less wealthy target market who do not have access to traditional, higher-end wealth managers. In addition, low fees are vital to bring in price-sensitive consumers who inhabit all segments of the wealth spectrum. However, customer acquisition costs will be high, especially for new entrants and those with little brand awareness in this market. As a result, making a profit on stand-alone automated advice business is challenging, particularly in the early years. We estimate that a stand-alone automated advice business is likely to need anywhere between £4 billion to £10 billion in assets to break-even, skewed in all likelihood towards the higher end of that range, a level substantially higher than where we are today.

Industry implications

Asset managers largely see themselves as 'manufacturers' of investment products. Few have sizeable direct-to-consumer (D2C) businesses, and most are reluctant to spend the money to build a brand with high recognition among mass market consumers. However, rapid adoption of digital advice has the potential to accelerate an ongoing shift to passive investments. To maintain growth, asset managers will need to focus either on differentiated products and/or find a way of participating in this change through, for example, building or partnering to create a D2C route.

Retail investment platforms and wealth managers are the best positioned to add on digital investment advice services given their branding and direct access to consumers. They can add this service at relatively low incremental cost, although they will need to build or buy technological expertise (for example, acquiring white-labelled software to provide the customer front end).

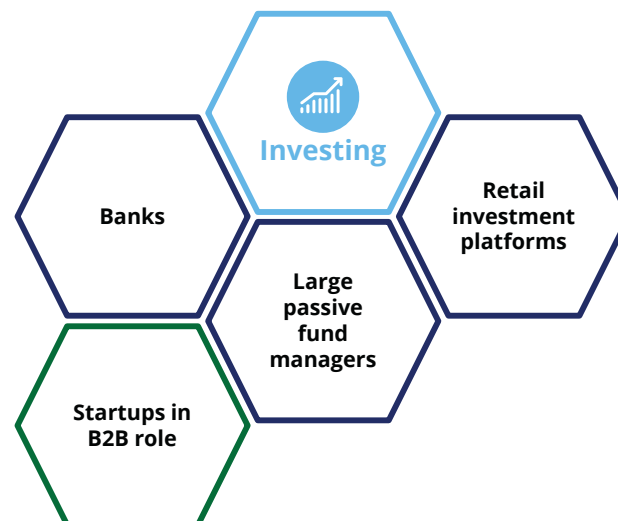
Retail investment platforms are especially well placed, as they can attract business away from wealth manager clients looking for lower-priced passive solutions.

Given banks' access and ongoing relationships with their customers, targeting investors with small sums to invest is an opportunity with a relatively low acquisition cost. However, the challenges here are likely to be low financial literacy, high risk aversion and the need to keep this solution affordable.

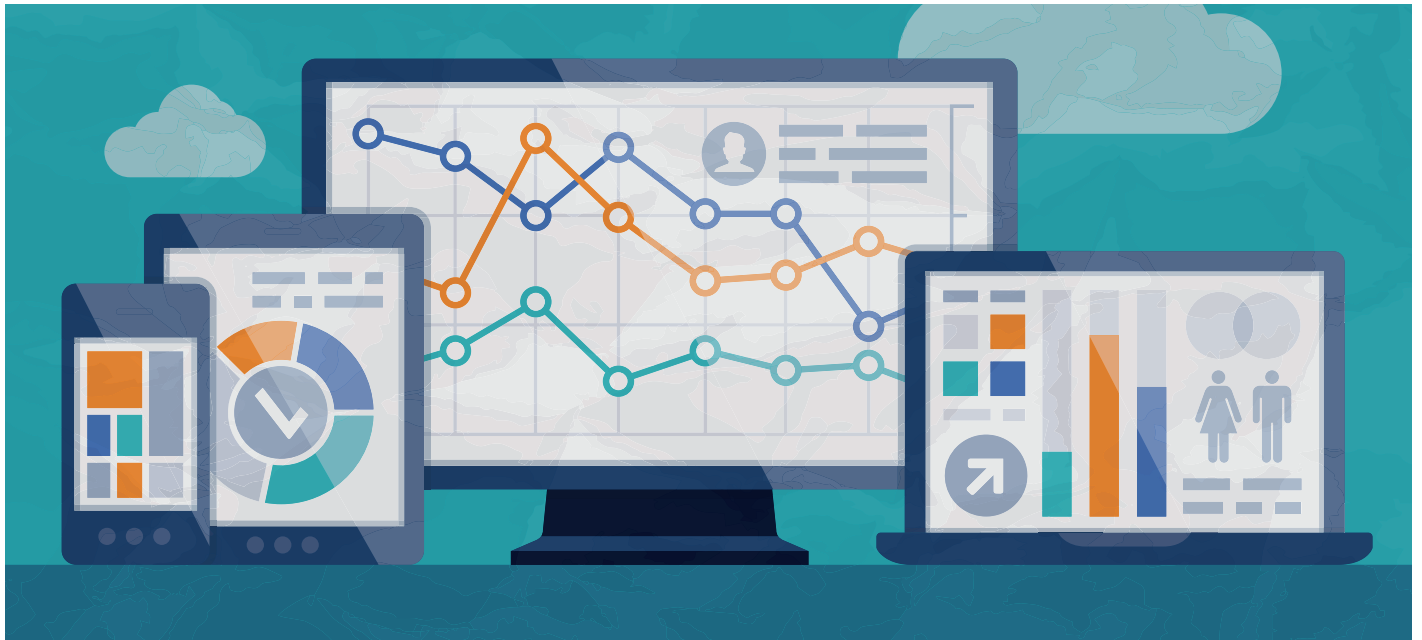
Start-ups have certainly led the way in terms of delivering digital advice models that can deal with smaller sums of money. Their focus has generally been to attract customers through lower fee products, enabled by their digital platforms. However, since most consumers have a low awareness of start-up brands, customer acquisition costs are likely to be magnified to uneconomic levels.



Figure 4. Future advantaged players in automated investment advice



Notes:
 • B2B - Business-to-Business



DC pension savings

Opportunity

The dominant workplace pension providers are typically large insurers and asset managers. In our view, automated advice on workplace pensions presents two major opportunities for incumbents to defend their dominant position.

The first opportunity is to increase customer engagement and we see three main ways in which automation can achieve this.

Second, automated advice can improve pension saving decisions by making advice more affordable. For employees who cannot afford to see a pension adviser, advice could be provided via a workplace pension portal with minimal human intervention. The website could help with key decisions, such as which fund to invest in. This would likely be much cheaper than traditional advice because it would save financial advisers' time and fees and because the costs of the technology could be spread across many scheme members creating significant economies of scale.

Barriers

Small pots - A key challenge for providers is the small size of many DC pension pots. This necessitates a low-cost solution to keep fees affordable. This need is amplified by the low levels of engagement and awareness typical among DC scheme members. The key to making this viable will be scale – higher volumes could compensate for low individual account fees.

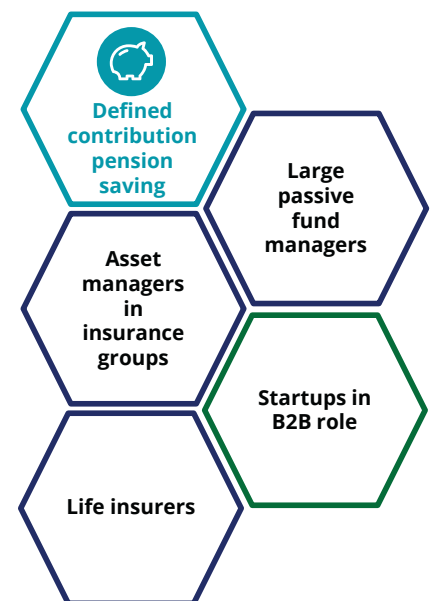
Acquisition costs - Marketing campaigns to persuade savers to try the service could prove costly. A successful campaign would need to overcome low consumer engagement and financial literacy, especially for plans with a large number of auto-enrollees.

Industry implications

The life insurers and asset managers that are the major workplace pension providers are well positioned to automate advice on workplace pensions. The main reason is that they have unrivalled access to customers. This gives them a good chance to side-step the challenge of high customer acquisition costs that has hampered pioneers of automated advice in the non-retirement investment space. Equally, start-ups faced by this challenge may be good partners because they have a track record of developing engaging customer interfaces.

Asset managers will benefit from higher flows into investment products in which savers will be advised to invest. We regard two distinct categories of asset manager as well-placed to capture this opportunity. Asset managers that are owned by major life insurance groups are well placed because they belong to the same groups as some of the major workplace pension providers. Leading passive fund managers also appear likely winners because their funds fit better within an ultra-low-cost model.

Figure 5. Future advantaged players in automated DC pension advice



At-retirement

Opportunity

Many retirees are disengaged with their pensions. This helps explain why only around 20 percent of consumers at retirement use Pension Wise—a free Government-backed guidance service—even though it offers free guidance.³ In addition, for many advice is too expensive to be worthwhile.

Automated advice can help address both challenges. Engagement is won in the accumulation phase long before retirement. As discussed above, automated advice communications that are more proactive and accessible than today’s paper-based annual statements can build a customer’s interest and involvement in DC saving. Efforts here would likely gain regulatory support.

In addition to making advice more engaging, automation can radically lower its cost. In-person advice on converting £30,000 pension savings into a lump sum and a retirement income product, which is a typical advice scenario, costs around £800.⁴ We believe the combination of a website using algorithms and an adviser speaking with customers over the phone (to ensure advice is suitable) can deliver good quality advice at a fraction of this cost.

This is an opportunity for providers in two ways. First, it is a chance to earn new advice-based revenues. According to the survey, many people are willing to pay for automated advice at retirement. Second, more importantly, it is chance to win and retain customers at the crucial at-retirement stage.

Barriers

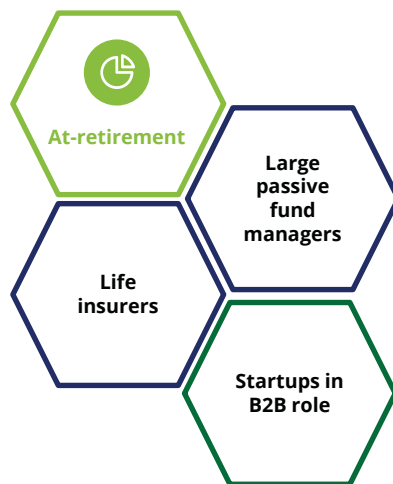
Regulatory risk - Firms giving regulated advice on pensions are likely to face a high degree of supervisory scrutiny given that large sums of money may be involved and that consumers could run out of money in retirement if they are given poor advice.

Given that both customer circumstances and retirement options are often complex, it is likely that firms will need to supplement their automated advice solution with a human adviser who can check the customer’s understanding and clarify any points if the firm needs additional customer-specific information.

Industry implications

The large life insurers and asset managers that are major workplace pension providers appear better placed than other players to win customers by providing automated at-retirement advice. Four reasons stand out. First, they have the greatest scale, and with it, ability to provide a low-cost service. Second, they can use their unrivalled customer data from the accumulation phase to provide more personalised advice than other players. Third they can use the same data to pre-populate forms making advice from them more convenient than elsewhere. Finally, for life insurers, only they can provide annuities which, for many risk-averse customers, could be a more suitable recommendation from advice than income drawdown. ●

Figure 6. Future advantaged players in automated at-retirement advice



To the point:

- We believe that the affordability and convenience of automated financial advice will be attractive to a wide range of consumers across investing, DC pension saving and at-retirement. The cost efficiency of automated advice, its objectivity and ability to maintain a clear audit trail are key positive attributes for providers. We think increased automation in the provision of advice on retirement products is imminent.
- Firms can overcome some of the key challenges (such low engagement, low fees, the risk of customers switching from higher to lower margin products) through innovative tools to encourage customer engagement, cost efficiencies driven by economies of scale and tailoring services to particular consumer segments.
- From a regulatory perspective, firms must invest to establish governance and compliance controls that are fit to deal with the different type and scale of risks introduced by automated advice.
- Incumbents are well placed to drive the adoption of automated advice as they have access to a large pool of existing clients.
- While our research is focussed on the UK market, many of the advantages and challenges of automated advice will have parallels across Europe.

3 The FCA found that in Q3 2015 20% of consumers told their providers they had used Pension Wise. Providers are only required to record whether a consumer said they used Pension Wise when consumers are not using a regulated adviser. Data Bulletin Supplement Retirement income market data, FCA, April 2016,

4 Cost of Advice Guide, Unbiased, <https://www.unbiased.co.uk/cost-of-financial-advice>



GREEN

FINANCE

KEEPS

THE SKY

BLUE

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Committee of the
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Member of the European
Commission's High-Level
Expert Group on sustainable
finance



The strategy of any company should encompass sustainability, e.g. in the production, supply chain process, and labor relationships.

The EC has set up a High-Level Expert Group (HLEG) focused on sustainable finance. Why now?

The first definition of sustainability was formulated back in 1992 at the Earth Summit in Rio de Janeiro, but it was the Paris Climate Summit in December 2015 and then the G20 meeting in September 2016 that marked the change and are the drivers of all the recent initiatives focused on climate action. By signing the Paris Agreement, more than 180 countries, accounting for 88 percent of global emissions, committed to keeping global warming well below 2°C. In practice this means that governments took on the responsibility to finance climate action. This is a huge milestone and defines the ambition over the coming decades. The current challenge, however, is that the process of financing sustainable development is starting without any legal framework. We face a number of risks, including the risk of financial stability (linked to failing to integrate ESG factors into mid- to long-term valuations), the risk of misallocation of capital, and even the obvious greenwashing risk.

Current risk models, in particular the Basel III regulation, mostly focus on short-term scenarios, whereas sustainability requires at least a 20- to 30-year perspective. There is a need to tackle this challenge and come up with a framework that will support this

paradigm shift. More decisive action is required now and it needs to be supported by an adequate regulatory framework.

What purpose does the EC HLEG serve?

By the end of 2017, the group will present recommendations for a comprehensive EU strategy on sustainable finance as part of the Capital Markets Union. The Commission will draw on these recommendations to determine how to integrate sustainability considerations into the EU's rules for the financial sector. Mid year, the HLEG will present an interim report already disclosing some of its recommendations.

The absence of a definition for what is green, the lack of clarity, and awareness in the sector suggests there is a need for a framework. This will incentivize private firms to get involved, a crucial addition for governments' commitment from COP21 to materialize. We need private capital to support green finance, therefore we need incentives for issuers and investors. To develop green finance first we need to define it, then harmonize it, standardize the sector, incentivize it and finally regulate it. The last step is the *raison d'être* of HLEG. I hope that in five years from now we will no longer discuss sustainable finance because all of finance will be sustainable, or at least most of it will be. Boards of directors should be responsible and held accountable for introducing and supporting

Overall, there is a strong need to introduce better tools for due diligence at lower transactional costs for issuers of green financial instruments.

sustainability. The strategy of any company should encompass sustainability, e.g. in the production, supply chain process, and labor relationships. Through green finance we will ensure that the sky will stay blue for the generations to come.

What if meeting sustainability requirements becomes too complicated in terms of return on investments?

It should rather go the other way around— not meeting sustainability criteria will eventually discourage investors. Some pension funds, e.g. the CalPERS in the US, the Swedish AP4, the Dutch ABP, and the French FRR, have all already adopted ESG quotas in their portfolios, as they are one of the investor groups with the longest investment horizon. We can gradually introduce peer pressure to make sustainability requirements more relevant. A good way forward could be, for instance, to impose an obligation for asset managers to include information on sustainable assets and the percentage of their portfolios that abide to the criteria in the KID document. These requirements can increase over time and the approach has to be progressive.

From a capital markets perspective, what are the most urgent topics in green finance and how should we tackle them?

The key challenge is a lack of a common language, even more aggravated by the conflicting interpretation of taxonomies. This is combined with the intrinsic complexity of the taxonomies and projects themselves. The situation is also quite messy when it comes to KPIs, metrics, and reporting preferences. Additionally, the market faces difficulties applying common and comparable standards to different sectors and types of issuers. There will never be a one-size-fits-all solution and sector-specific standards will need to be developed for all relevant sectors.

Investors also face the challenge of poor comparability of projects. The difficulty here is the open approach of the industry where many overlapping, and occasionally conflicting, approaches are possible. The onus of comparing projects is on the investor side, but they need to be guided by preparing and displaying information in a clear and structured framework, like the one we adopted on the Luxembourg Green Exchange. Overall, there is a strong need to introduce better tools for due diligence at lower transactional costs for issuers of green financial instruments.

LuxSE has recently launched LGX. It has been live for more than six months now. What trends have you observed so far?

We have already reached an important milestone: the €50 billion threshold in the value of bonds displayed on LGX. The first ever sovereign green bond, issued by the Republic of Poland, is also among the instruments on the Green Exchange. In total, we now display 110 green bonds listed by 25 issuers in 19 currencies. We believe these numbers will grow substantially in the short and medium term.

Over the past couple of months, issuers and investors have moved from asking the simple question “Is this instrument green?” to “How green is the project it is financing?”. The demanding entry criteria and a “green transparency bar” that we put much higher than other exchanges has been widely appreciated by the market, from both the issuers’ and investors’ side.



A full spectrum of products is already emerging (social bonds, sustainable bonds, positive impact bonds, ESG funds, etc.). We are living in fascinating times for financial innovation!

Are there any trends observed among green issuers?

Development banks and supranational agencies, of the likes of the World Bank and the European Investment Bank (EIB), have been paving the green way since EIB's first "climate awareness bond" issued in 2007 and listed on the Luxembourg Stock Exchange. The same trend is also clearly visible on LGX, as currently 58 percent of the green bonds displayed on the green platform come from supranational issuers. The times are changing though.

Among green bonds on LGX, 16 percent represent private issuers. This is crucial, as on-boarding the private sector is *a sine qua non* for a solid growth of green finance. Also municipalities and local development banks increase their green funding. Overall, 25 percent of labelled green bonds worldwide are already displayed on LGX. This constitutes half of all listed green bonds globally.

Poland, France, Nigeria; it seems more and more countries are issuing green bonds. Is this the right way forward?

There is no right or wrong approach. The market and society are facing a paradigm shift, which requires a shift of resources and capital allocation toward sustainability, more clarity to investors on climate and system risks on the valuation of their assets and portfolio, and better overall disclosure transparency.

It is obvious that the public sector, and governments in particular, are in the driving seat. Yet they will also have to prove effective in bringing private initiatives to the pool of sustainable projects to be financed through capital markets. In this respect, they have three responsibilities: to educate and raise awareness of all market participants; to directly promote green projects; and finally to introduce a favorable framework that brings in more eco-friendly projects.

Is green enough? What about positive/social/sustainable finance instruments?

Sustainable securities will come in many different varieties. OECD studies suggest that annual green debt issuance worldwide alone will need to rise to US\$620 billion-US\$720 billion per year by 2035 if the G20 is going to meet its climate change targets. There's about US\$100 trillion of institutional money in the world, and less than one percent of that is invested in anything green. We have to make it attractive to investors.

A full spectrum of products is already emerging (social bonds, sustainable bonds, positive impact bonds, ESG funds, etc.). We are living in fascinating times for financial innovation! From an institutional player's perspective, green bonds are the best instrument to get engaged in green finance; on the retail investors' side, green ETFs are an interesting option.

Some financial instruments are starting to measure both the positive and negative impacts of the projects they finance, going the extra mile with offering unprecedented granularity and transparency on the additionality they bring to society. For example, in October 2016, Société Générale issued a positive impact bond based on both the Positive Impact Manifesto and the bank's own Positive Impact Assessment Framework, in which the holistic dimension of the projects' ESG impact was defined. This approach also took into consideration the possible negative impact on soil and biodiversity that the same projects benefiting climate and employment can have.

Another example of this innovative approach comes from the World Bank. In March 2017, the World Bank issued its first ever set of green bonds that directly link financial returns to companies performing in line with the standards and aims on the United Nation's Sustainable Development Goals (SDGs).

Are there other initiatives that focus on the development of sustainable finance?

Indeed, there are quite a number of these initiatives. Just to name a few, the United Nation's Integrated Reporting-promoting a holistic approach to internal company assessment and public information; the Recommendation of the Task Force on Climate-related Financial Disclosure; the Green Investment Bank that assesses the impact of green projects; or the 2 Degrees Investing Initiative with the ambition to develop tools to measure portfolio exposure to climate risk. Furthermore, most rating companies are developing their own methodologies in relation to combining financial and ESG assessment of companies and debt instruments.

Following the success of LGX, what will be the distinctive features of the new social/sustainable segment on the Luxembourg Green Exchange?

The new segment on LGX gives visibility to instruments that are issued to fund social and sustainable projects. To be eligible, the issuer will have to declare (similarly to green bonds) the social or sustainable nature of the financed project in line with the GBP social/sustainable taxonomy.

As with green bonds, there is a need for the issuer to provide an external review in the form of a third-party review and a commitment to conduct ex-post reporting on the way the proceeds are used. Issuers are also encouraged to make their KPIs/metrics well known and report against these with special attention to anticipating the social/sustainable additionality of the projects behind the financial instrument. Today, most ESG/SRI investors do not differentiate their sustainable investments. Yet as the market goes more mainstream and knowledge improves, more specific product/project/additionality identification might become crucial in making investment choices.

What is the potential of the sustainable market? What type of issuers do you plan to attract and what should trigger their interest in joining Luxembourg Green Exchange?

The potential is huge for the sustainability category as it is much wider than the green one. Much like with green bonds, the key added value of having social and sustainable bonds displayed on LGX is the increased visibility of the bonds and sustainable activity of the issuer, improved transparency, and better communication with investors.

For instance, Instituto de Credito Oficial's social bonds aim to promote employment in the most economically depressed regions in Spain, i.e. those that have a per capita income below the national average (these zones currently have an unemployment rate that is equal to or greater than 19 percent). The Dutch BNG Bank's social bonds finance sustainable social housing by providing financing to best-in-class housing associations, while other issuers tackle education, youth and unemployment issues.

If you were to host COP25, in the year 2020, where do you hope the sustainable economy will be? What would your goals be?

In the perfect world, many of the core issues being debated now will have been solved and streamlined by then. The debate will have shifted toward material elements of additionality, in particular a clear measure or comparability of how issuers and projects additionally contribute. This would lead to investors becoming not only more knowledgeable, but also fully conscious of their power to contribute to a groundbreaking shift. Instead of stress tests, we will have sustainability tests.

In particular, I would hope for an alignment of Chinese and EU standards in green finance. I would like us to have introduced a GreenConnect-a platform connecting green investors and issuers all over the globe. And last but not least, LuxSE's red logo should be replaced by the green LGX logo to reflect the radical shift toward green and sustainable finance. ●





BREXIT

A NEW TAX
OPERATING
MODEL?



Gavin Bullock

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Although the impact of Brexit on fund performance and distribution has attracted the most attention, its impact on asset managers' corporate structures also needs to be assessed. The loss of passporting rights could force some UK asset managers to restructure their operations in the EU. Legal and regulatory issues will be the key drivers of change, but tax considerations are important too.

Brexit restructuring

The UK's departure from the EU could have a significant impact on how UK-based asset managers operate within the single market. The EU's UCITS, MiFID and AIFMD rules currently allow UK regulated companies to passport across the EU. UK-based asset managers may currently rely on these passporting rights in order to:

- Distribute products in the EU, for example through EU branches; and
- Manage EU-domiciled funds, or segregated portfolios, directly from the UK.

The precise impact of Brexit on these arrangements is currently unclear, and is likely to affect different managers in different ways. It will depend in particular on the types of product which are managed, the manager's client base, and how the various EU directives are relied upon.

However, it is likely that some will need to make important structural changes to continue operating across the EU. Such changes are likely to include undertaking more activity through companies established in the EU, which we refer to as "EUco" in this article.

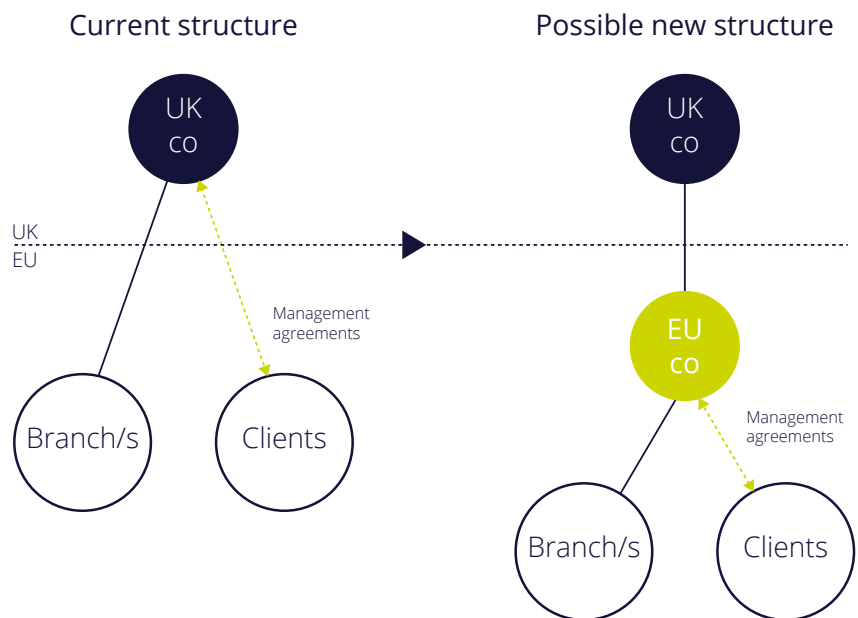
The transfer of distribution and portfolio management activity from the UK to EUco could have a number of significant tax consequences.

Key questions which managers need to consider include:

- Should tax have a bearing on where EUco is located?
- Will the transfer of branches or management agreements to EUco give rise to taxable disposals, or VATable supplies? If so, are reliefs available?

- What are the ongoing tax consequences of operating EUco?

In this article we discuss some of the considerations which are pertinent to these questions. ➔



Where to establish EUco

Legal and regulatory considerations, together with the location of existing operations, are likely to be the key drivers of where EUco is located. Nonetheless, the tax regime which applies to EUco will have an impact which should be assessed.

Corporate tax regimes

An obvious question is whether the activity which is transferred to EUco will be taxed at a different rate to the UK's. The UK corporate tax rate is currently 19%, and will fall to 17% by 2020.

These are lower than the rates in many of the UK's neighbours in continental Europe. Will performing distribution and portfolio management through EUco lead to higher corporate tax liabilities?

This is likely to depend on a few factors, including:

1. How much activity is transferred to EUco, and what profit the transferred activity generates. This in turn is likely to depend upon what EUco's regulator will require in terms of substance and local presence (i.e.

people "on the ground"), and the transfer pricing policies which are applied to EUco.

2. The treatment of any branches transferred to EUco. If EUco is in a jurisdiction which exempts branch profits from tax, those branch profits will only be taxed in the branch jurisdictions. There will be no additional tax on branch profits in EUco's jurisdiction, and EUco will only pay tax on its "head office" profits.

3. Local tax rules, including what expenses can be deducted from taxable income and what tax incentives and allowances are available.

Of course, if EUco is based in a jurisdiction with a lower tax rate than the UK's, like the Republic of Ireland, the new structure could generate tax benefits. However, anti-avoidance rules would need to be looked at, like the UK's controlled foreign companies and diverted profits tax rules.

Repatriating profits

Currently, the EU parent & subsidiary directive can prevent withholding tax from being applied to dividends paid from an EU subsidiary to its EU parent. So a dividend received by a UK company from an EU subsidiary should currently be free from withholding tax.

Once the UK leaves the EU, this withholding tax exemption may no longer apply, and UK companies may need to look to the UK's tax treaties for withholding tax

Whether (and how) the judgement in Skandia will be adopted in EUco's jurisdiction could have a significant impact on the VAT treatment of any new structure

reliefs. Not all tax treaties provide a full exemption from dividend withholding. For example, the UK-Germany tax treaty reduces the withholding tax rate to 5%, not nil. Therefore, absent a rule change or a renegotiation of the tax treaty, transferring activity to a German EUco could lead to withholding tax leakage on dividends.

VAT rules

As with any structure which involves the cross-border provisions of services, VAT should be looked at carefully. This is particularly so where EUco will be operating through branches. At the moment, charges between overseas branches and their head office are normally VAT-free. However, in response to the CJEU's Skandia judgement, many EU jurisdictions are changing their rules to impose VAT on certain transactions between a head office and its branches.

Whether (and how) the judgement in Skandia will be adopted in EUco's jurisdiction could have a significant impact on the VAT treatment of any new structure.

Different jurisdictions also have different rules on how VAT exemptions are applied, when entities can form a "group" whose members do not need to charge VAT to one another, and the way in which input VAT can be recovered. They also have different rates of VAT. All of these will have an impact on VAT costs in a post-Brexit structure involving EUco.

It is also worth remembering that VAT rules are governed by EU legislation. This means that, post-Brexit, the VAT landscape will change, adding an element of uncertainty to any assessment of how VAT will impact business operations in the future. ➤

Transferring operations to EUco

Having decided where to establish EUco, the next key decision relates to how operations should be transferred to it.

Tax is absolutely key to this decision making. This is because the transfer of assets from one company to another is normally a market value disposal for tax purposes, and possibly a supply for VAT purposes too.

Where the assets are valuable, there is the risk of creating significant tax liabilities.

Fortunately, reliefs can mitigate these liabilities in many situations. However, they often require complex conditions to be met and do not apply to every situation.

Transferring branches from the UK to EUco

The transfer of branches from a UK company to EUco can be complex, because two layers of tax need to be considered: one in the branch jurisdictions, and a second in the UK.

In the branch jurisdictions, reliefs may allow the branch assets to transfer to EUco neutrally, from a local corporate tax

and VAT perspective. However, this will be subject to satisfying the local requirements. It may also be necessary, or advisable, to obtain a ruling from the local tax authority.

Interestingly, in some EU jurisdictions, the reliefs permitting tax neutral transfers could potentially be clawed back if the transferor ceases to be an EU company within a defined period after the transfer takes place. This means that, when the UK leaves the EU, taxable gains could potentially crystallise on previously-transferred branch assets.

In the UK, companies can elect to treat overseas branch profits as exempt from UK corporation tax. Where this election has been made, the transfer of branch assets to EUco should not be a taxable disposal. Whilst in principle this should make things simple, there are a few complexities to watch out for, including where an exempt branch has made tax losses and where there have previously been transfers of assets between the branch and its head office.

If a branch profit election has not been made, the transfer of branch assets will be a disposal for UK tax purposes, although any UK tax liability can be reduced by tax suffered in the branch territory on the same gain. However, if a relief applies in the branch territory, there may be no branch tax to “credit” against the UK liability. In this case, UK tax creates a cost.

Helpfully, there are special reliefs which can defer or eliminate the UK tax which would otherwise arise on the transfer of branch assets to EUco. These reliefs are subject to a number of detailed conditions.



1 A representative office is an operation which does not create a taxable presence, or “permanent establishment” in its local jurisdiction

One of the reliefs is also subject to a clearance procedure.

Some UK managers operate the in EU through representative offices rather than branches. Applying the rules and reliefs to the transfer of representative offices can cause difficulties which need to be worked through.

Transferring management agreements from the UK to EUco

The transfer of management agreements to EUco can also be problematic. A cross-border transfer of a UK asset, on the face of things, is a market value disposal by the UK management company, and potentially a VATable supply too.

Where management agreements are valuable, some managers may consider terminating the existing agreements and putting in place new ones with EUco. If the existing agreements contain terms which permit such a termination, there is an argument that there has been no disposal of value, or supply.

However, this approach does come with risk. The clients could choose not to appoint EUco, or could use the termination as an opportunity to renegotiate terms. It would also be necessary to consider whether the UK management company had played a role in EUco's appointment, which under transfer pricing principles should attract a reward.

Operating EUco

Once EUco has been established and activity has been transferred to it, the focus will be on operating it as efficiently as possible. Ideally, these operational considerations should have been assessed as part of the jurisdiction selection work. As noted previously, key issues are likely to include VAT leakage arising on cross-border charges, exposure to different rates of corporate tax, and the risk of withholding tax on profit repatriation.

Where staff need to be relocated or will be travelling between the UK and EUco's jurisdiction, managers will need to have policies and frameworks in place to meet business requirements and also comply with the applicable tax, social security, and immigration rules.

Managers will also need to consider strategies for rewarding and incentivising EUco's staff. They will need to understand the local regulatory requirements on remuneration, how to structure local pension arrangements, as well as legal issues pertinent to participation in global incentive plans, the transfer of employee data, as well as employment rights.

The more practical day-to-day consequences of operating EUco should not be overlooked either, for example tax registrations, filings and other compliance obligations. ●

To the point:

- Brexit may require UK asset managers which currently rely on passporting to move some operations to other EU jurisdictions.
- Tax rates and rules vary across EU jurisdictions, which could influence the decision on where operations are moved to.
- The transfer of business from a UK company to a company elsewhere in the EU could be a market value disposal for tax purposes, and a VATable supply. Reliefs can apply, but need to be looked at carefully and are not always available.
- Tax will need to be considered for a new, post-Brexit operating model.

Applying the rules and reliefs to the transfer of representative offices can cause difficulties which need to be worked through.



RegChain Reaction

Revolutionary
reg. reporting in
the funds world



David Dalton

Partner
Consulting
Deloitte

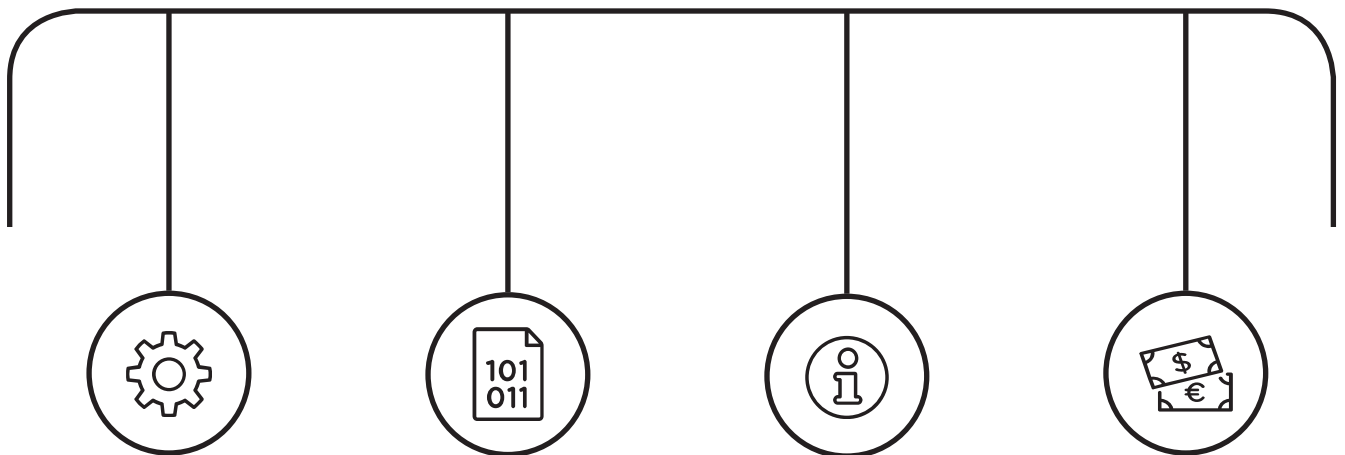
Lory Kehoe

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Deloitte, in collaboration with Irish Funds and their members, advanced “Project Lighthouse” to assess blockchain technology’s ability to service regulatory reporting requirements. The project tested the ability for a platform to provide individual nodes for fund administrators to store and analyze fund data while coding regulatory reporting requirements into smart contracts for execution and data validation. A regulator node was also facilitated, allowing the safe and secure exchange of data between firms and the regulator, as well as to increase overall reporting efficiency and market transparency. In addition to technical design and development, a comparative business analysis was undertaken to review the cost-benefit analysis of the proposed blockchain solution. ➤



Operational Inefficiency

- Manual keying from core systems to reporting tools
- Reliance on MS Excel as reporting tool
- Quarterly and month-end workload pressures
- High cost, low value and non differentiating process

Data Management

- Questionable data quality
- Potential for data manipulations
- Data errors due to manual keying
- Time consuming extraction, reconciliation and report generation

Complexity & Change

- Increasing requirement for granularity with look through and advanced analytics
- Changing requirements of domestic and regional regulators
- High cost of change with legacy applications

Cost Challenges

- Increasing FTE cost burden on the fund administrators due to new regulations
- Large scale IT costs relating to improving existing legacy systems
- Adverse effect on the cost: income ratio

Blockchain technology was utilised due to a number of its features and characteristics which can enhance the overall ability to meet reporting requirements.

Why blockchain technology?

Blockchain technology was utilized due to a number of its features and characteristics, which can enhance the overall ability to meet reporting requirements. Benefits include:

1. Data integrity

Due to blockchain hashing capability, data that is entered into the blockchain is extremely difficult to alter. Once approved by consensus it is immutable. Any change to data can be tracked in the chain, reducing the possibility for fraud or malpractice.

2. Reliability

Blockchain does not have a central point of failure and is better able to withstand malicious attacks. Disaster recovery is inherently built into a blockchain as standard due to all parties having a copy of the ledger.

3. Storage & Speed

The blockchain provides for near-real-time updates of data across nodes. This facilitates speedier sharing and access to data with entities such as a regulator. Utilizing IPFS, a P2P hypermedia protocol sitting on top of blockchain, it allows for safe and immutable file sharing and facilitates large data transfer with high efficiency.

4. Analytics

By providing a single source of accurate and immutable data, the blockchain is a repository of transactional and fund data, which can be used to develop greater analytics. A singular view of each participant's position across all asset classes can be made available assisting in overall management efforts and MIS collation.

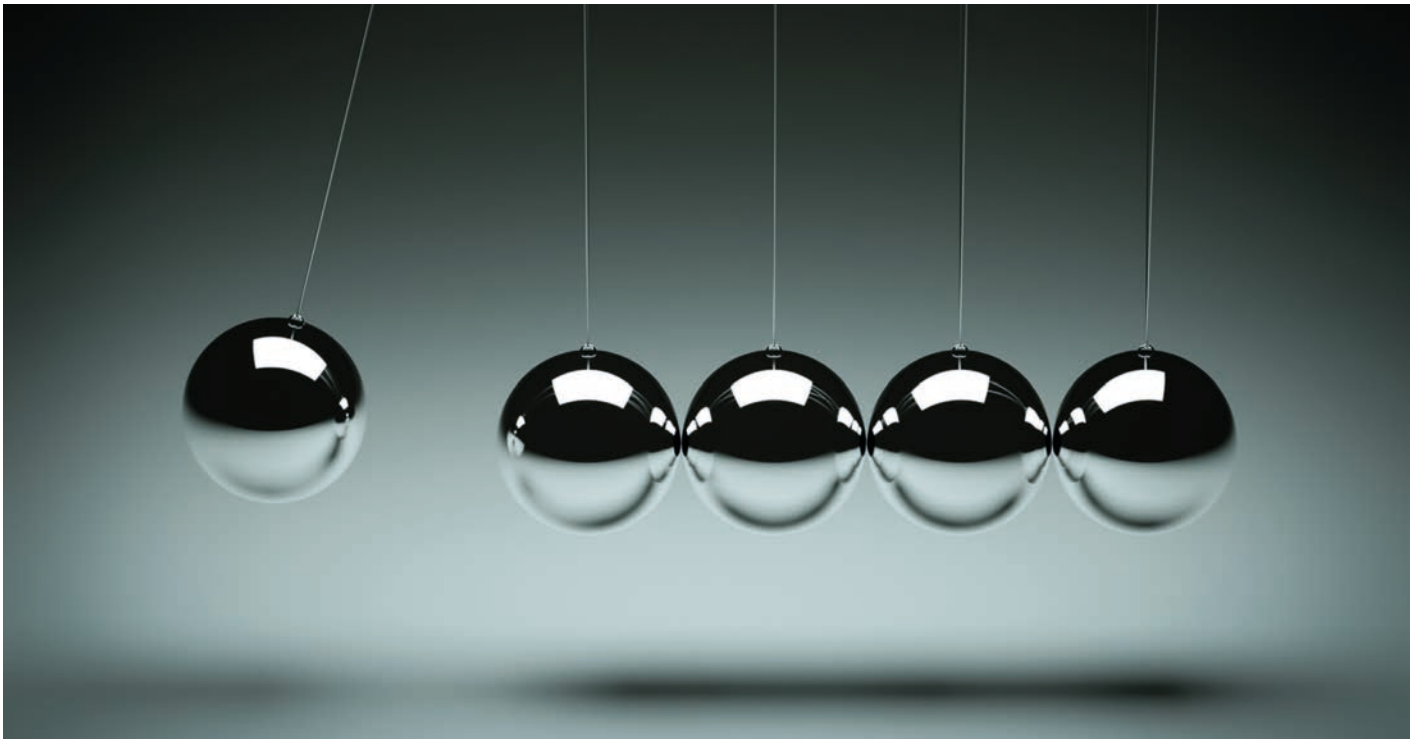
PoC parameters

- This Proof of Concept (PoC) is focused on assessing the application of blockchain technology to meet regulatory reporting requirements within the fund industry, in a more efficient and effective manner than existing technologies and processes
- The development of the PoC ran for a 10-week period, commencing December 2016
- Money Market and Investment Funds Reporting (MMIF) return, applicable to all Irish domiciled funds, was selected as an applicable test case
- The purpose was to ease the transition of the outcome of the MMIF PoC for other regulatory reports, e.g., AIFMD Annex IV
- We also could determine the cost-benefit impact of blockchain
- We concluded with identifying the critical success factors to take a solution forward to production

A RegChain with smart contracts

The PoC created "RegChain," a blockchain-based platform that streamlines the traditional regulatory reporting processes by acting as a central repository for the safe storage and review of large volumes of regulatory data.

RegChain enables the logging and recording of transactional and positional data securely using blockchain technology. It ensures data integrity with smart contracts, executing reporting requirements and auditing any changes made to the data by authorized parties. Internal control and regulatory checks (e.g., beta checks) are performed within the platform to ensure the participant is compliant. This solves many of today's operational challenges while ensuring the integrity of data and removing post submission engagement by the CBI. Additionally, it creates a single source of truth, which any authorized party can use as a basis for statistical analysis and to provide actionable insights. The technologies chosen for RegChain were Ethereum and IPFS (InterPlanetary File System).



Approach and development

RegChain was developed using Deloitte's rapid prototyping process, which uses an experiment-driven agile methodology. Key phases included solution visioning, definition of design and test parameters, development sprints, and on-going reviews with an industry sub-committee with participants from across the fund administrator and fund management world.

A key consideration and cornerstone for this project was to ensure collaboration among technologists and industry representatives from operations, regulatory teams, and senior management. This was deemed critical in order to have a comprehensive PoC design, and moreover, to help define how a future production solution could be realized. ●

To the point:

- Blockchain can act as a secure storage of data, improve data quality and integrity, and increase efficiency surrounding the regulatory reporting process through the application of smart contract capabilities.
- Blockchain can help in the overall management of regulatory change requests and the addition of new reporting requirements, in that a change is coded once and then progressed across the network to all participants.
- Ancillary benefits of blockchain technology include the provision of a safe network for data sharing and transmission, the creation of a rich and trusted data set to which analytics can be applied, built-in disaster recovery, and the ability to develop new capabilities such as automated compliance.
- The MMIF PoC solution can be adopted to incorporate other regulatory reports, e.g., AIFMD Annex IV.
- Blockchain projects require a multi-disciplinary approach. If new solutions are to be successful they must be cognizant of existing industry requirements and built for varying needs across the operational world. Such an approach is needed for solutions to advance to pilots and production in the short to medium term.
- Next steps: Having demonstrated what is possible, there is genuine excitement among the group about moving this forward to develop a pilot.

SMARTER INVESTING BY TRYING TO UNDERSTAND THE MOOD OF MR. MARKET

Valentijn Van Neuwenhuijzen
Chief Strategist and Head of Multi-Asset
NN Investment Partners¹



¹ NN Investment Partners is the asset manager of NN Group N.V., a publicly traded company listed on Euronext Amsterdam. NN Investment Partners is head-quartered in The Hague, The Netherlands. NN Investment Partners in aggregate manages approximately EUR 195 bln/USD 205 bln "Figures as of 31 December 2016" in assets for institutions and individual investors worldwide. NN Investment Partners employs over 1,000 staff and is active in 15 countries across Europe, U.S., Latin America, Asia and Middle East. NN Investment Partners is part of NN Group N.V., a publicly traded corporation.

The impact of investor sentiment on markets has increased dramatically over the past decade. It is therefore crucial for multi-asset managers to critically analyze market behavior in order to be successful. Big Data and the study of human biases are leading to a deeper understanding of the emotional forces that influence investor behavior. Combining these elements into the investment process creates a robust framework for guarding against common investor pitfalls. Valentijn van Nieuwenhuijzen, Head of Multi Asset at NN Investment Partners, explains how he and his team continuously challenge each other to keep driving their investment process forward.

Adjusting to a new normal

Investors are still adjusting to a “new normal” of record-low interest rates, persistently low growth and inflation, increased political and policy uncertainty, and lower expected returns on savings and investments, amongst others. Contrary to the “irrational exuberance” we saw in the late 1990s, it seems that the near-death experience of the global financial system in 2008/2009 has installed a fair degree of “dread risk” in the minds of investors: an excessive focus on downside risks, which in turn can create its own reality. Such dread risk only wears off slowly and in the meantime risk premiums can be elevated, volatile, and more susceptible to shocks than before 2008. In addition, financial markets have lost some of their fundamental anchors. Massive, price-insensitive asset buying programs of central banks, reduced liquidity in secondary markets, increased usage of ETFs and derivatives, and the rapid gains in speed of information processing and trading activity have increased the impact of investors’ emotions on markets.

The importance of analyzing investor behavior

For a multi-asset manager, this means that for making deliberate asset allocation decisions, next to fundamental analysis, the study of market behavior has become more important than ever before. Behavioral factors are just as important as fundamentals as a driver of financial markets, as we have learnt that markets can influence the underlying “rear economy” just as easily as the other way around. This means that these market emotions cannot be ignored. Mapping the mood of the market by finding and assessing signals to understand its behavior allows for differentiation in positioning rather than getting lost in the noise.

In order to assess the possible upside or downside of the market, especially in the light of “risk events” like elections or central bank decisions, it is necessary to have a good understanding of how investors are positioned and whether market trends could be ready for a short-term reversal. Strong consensus overweight positions in

a certain market or asset class are usually a contrarian indicator and signal caution. It is particularly important to analyze the exposures of active allocation managers such as other multi-asset funds, macro hedge funds and long-short equity funds. In addition to current positioning, one has to look at the strength of investment flows of both institutional and retail investors to various asset classes and try to assess their persistence. As an increasing amount of money is invested in passive products, the study of ETF flows has grown in importance in this matter. ➔

Mapping the mood of the market by finding and assessing signals to understand its behavior allows for differentiation in positioning rather than getting lost in the noise.

The continuous cycle of technological innovation means that asset managers will have to constantly develop their analysis toolkits, nurture an open-minded team culture, and keep on learning, improving, and adapting if they want to stay on top of their game.

Next to flow and price dynamics, the analysis of observed emotions, or sentiment, of the market is very useful. The desire to measure market sentiment is not new. Investor surveys—like the well-known weekly Bull-Bear survey among US investors or the monthly Bank of America/Merrill Lynch Fund Manager Survey—have been common for many years and provide a good insight in how bullish or bearish investors say they are when asked directly. However, digitalization and the emergence of social media, self-teaching algorithms, and the ability to process large amounts of data, practically in real time, have created an entirely new way to measure sentiment in an indirect manner. These digital news and social media feeds can be converted into sentiment indices such as optimism, fear, joy, or conflict. This provides real-time insight into the sentiment that plays a role in driving markets.

Measuring emotions through analyzing the digital space

One of the innumerable impacts of the internet is the window it provides into the sentiments and beliefs of the world's investors. The influence of what John Maynard Keynes coined “animal spirits” on markets has never been greater than in today's rapidly changing world where opinions, emotions, and information are increasingly shared instantaneously through digital networks that stretch across the globe. This rapid transmission of information adds to the ways in which investor emotions can exert influence on markets. If the resulting market swings create feedback loops strong enough to affect the “real” economy, then self-fulfilling prophecies are created.

The complex nature of markets demands that all available insights are exploited in order to understand the market organism and its interaction with its environment better than the rest of the investment community. None of us will ever fully comprehend how “Mr. Market” really thinks or moves, but a better understanding of his digital footprint will certainly help us better assess his most probable path. One of the latest additions to a fund manager's toolkit is the analysis of news or Big Data from digital channels. This creates the

ability to objectively measure emotions, perceptions of uncertainty, and political risk in a high-frequency (daily) and timely manner. Ignoring the intelligence that can be gleaned from these digital channels would be a major oversight, if not perilous, in our view.

Doing this effectively means not only collecting digital news flow data, but also being able to identify where it comes from and understand what it means. Interpreting the data, appreciating the emotions it reflects and identifying any insights these opinions and emotions might actually provide on the future direction of markets are the key challenges to integrating these data into an investment decision-making process.

The spectrum of emotions that can be distilled through digital channels is far broader than that of traditional binary (positive/negative) sentiment indicators. These channels make it possible to decipher emotions along the dimensions of expectations, uncertainty or urgency. This type of information provides additional insight or hints on future market direction that can be derived from more “fundamental” information on corporate earnings or other economic data.



Big Data is an additional, but not to be underestimated, source of return

A good example of how this works in practice occurred in January 2016. The digital media analysis we received on a particular day showed an above-average number of articles on “stress,” “gloom,” and especially “conflict.” Even before the market collapsed, it was possible for investors to cut their equity exposure and extend their cash positions. It turned out to be just in time: the world’s equity markets subsequently collapsed, with the S&P 500 equity index falling nearly 5% in the following few days.

This example shows that big data can be very helpful, but it remains a complementary source of information rather than the only one. Our research shows it adds between 10 and 20 percent informative value to final decisions. But there can be no doubt that in a world in which a rapidly increasing amount of information and emotions is shared through digital channels, it is essential to tap into the networks of financially-oriented news platforms, blogs, and social media to understand how the broad economic and financial mindset is evolving.

Embedding this digital news flow into our decision-making process is one of our most important innovations that has helped us to adapt to a changing investment landscape. At NN Investment Partners we use robust statistical methods to assess whether the data inputs we are receiving have informational content that can be used in the construction of the toolkit that supports our investment decisions. The structure of this toolkit allows for a great variety of input signals, both fundamentally and behavioral-based, and we believe that the behavioral elements can be just as accurately assessed for their predictive value as any other. The toolkit makes use of digital news and social media feeds, converted into indices through text analytic techniques, to capture real time sentiment within different segments of the asset markets. ➤

What we are seeing today is a difference in the nature or degree of the approach adopted.



“Assisted” manager or “augmented” manager

Even though the use of artificial intelligence in asset management is now mostly of an exploratory nature, many management companies are examining the capacities offered by data mining, knowledge engineering, semantic analysis or even the combination of pragmatic artificial intelligence applications.

What we are seeing today is a difference in the nature or degree of the approach adopted.

The first steps in the process, therefore, seek to add a supplementary layer of information by scanning networks for relevant and fresh data, so as to fully understand the market trend and respond to it. The approach may be two-dimensional, which is to say both

macro (by analyzing the declarations of economic decision-makers for example) and micro (by consulting the latest developments for the companies monitored and their competitors).

A further goal could also be pursued. It involves expanding the investment universe or the perimeter of signals observed.

Looking at the macro angle, for example, this would involve identifying unofficial leading indicators for economic aggregates (inflation, economic growth), through the analysis of consumer trends for supermarkets or global freight.

The calculators should be sufficiently powerful to extend the scope of the buy-side analysis conducted by the

management company’s internal teams, ranging from a regional to a global dimension.

Added to the computing power of current applications are the corrections that can be effected in relation to the bounded rationality of the human brain. Numerous university studies have documented what is evident: algorithm predictions systematically beat the predictions of human experts. Our minds need algorithms to unbiass our judgements and decisions. However, it is the “human, machine, process” association that determines the organization of strategic and tactical choices.

Pascal Koenig
Partner in Consulting and Advisory at
Deloitte.

Implementing behavioral analysis into the decision-making process

Individual asset managers will give greater or lesser weight to big data analysis. In our view, the best approach is to base a top-down multi-asset strategy on a combination of fundamental and behavioral analyses. Along with an assessment on macro and corporate fundamentals, this provides an understanding of investor emotions, which is indispensable for maximizing investment performance and making better-informed investment decisions.

An essential point is of course how to combine the model inputs with the fundamental research and insights of strategists, economists, and portfolio managers to come to a coherent view on the markets. In other words: combining the best of man and machine.

The construction of our proprietary toolkit provides a framework for assessing markets, essentially the machine inputs that are then used by our strategists and portfolio managers to meld, with their own research and insights, into a coherent view on financial markets. One of the benefits of this approach is that it helps to protect against the known behavioral pitfalls of investors, such as the underestimation of risk and overestimation of returns, but also

fear and loss aversion. The use of human judgement, which is still better able to assess the consequences of geopolitical events, shifting political alliances, changes in corporate governance, and central bank policy, alongside the use of data-derived signals that protect against known human biases, enables the manager to make better balanced decisions.

Moreover, the data help to continuously improve the accuracy of the forecasting process. In other words, the data will not replace human insight, but augment the ability of multi-asset managers to make the right judgments in the ever-changing world of financial markets.

This is not the end of the story of course. Big Data and artificial intelligence are currently hot topics, yet it is quite possible that our next round of innovation will be driven by something completely different. The continuous cycle of technological innovation means that asset managers will have to constantly develop their analysis toolkits, nurture an open-minded team culture, and keep on learning, improving, and adapting if they want to stay on top of their game. ●

An essential point is of course how to combine the model inputs with the fundamental research and insights of strategists, economists, and portfolio managers to come to a coherent view on the markets. In other words: combining the best of man and machine.

To the point:

- The impact of investor sentiment on markets has increased dramatically over the past decade.
- For an investment manager it is therefore crucial to critically analyze market behavior and to implement this in his investment process.
- Big Data and the study of human biases are leading to a deeper understanding of the emotional forces that influence investor behavior.
- Combining these elements into the investment process creates a robust framework for guarding against common investor pitfalls.

Innovation

in private banking and wealth management

Dr. Daniel Kobler

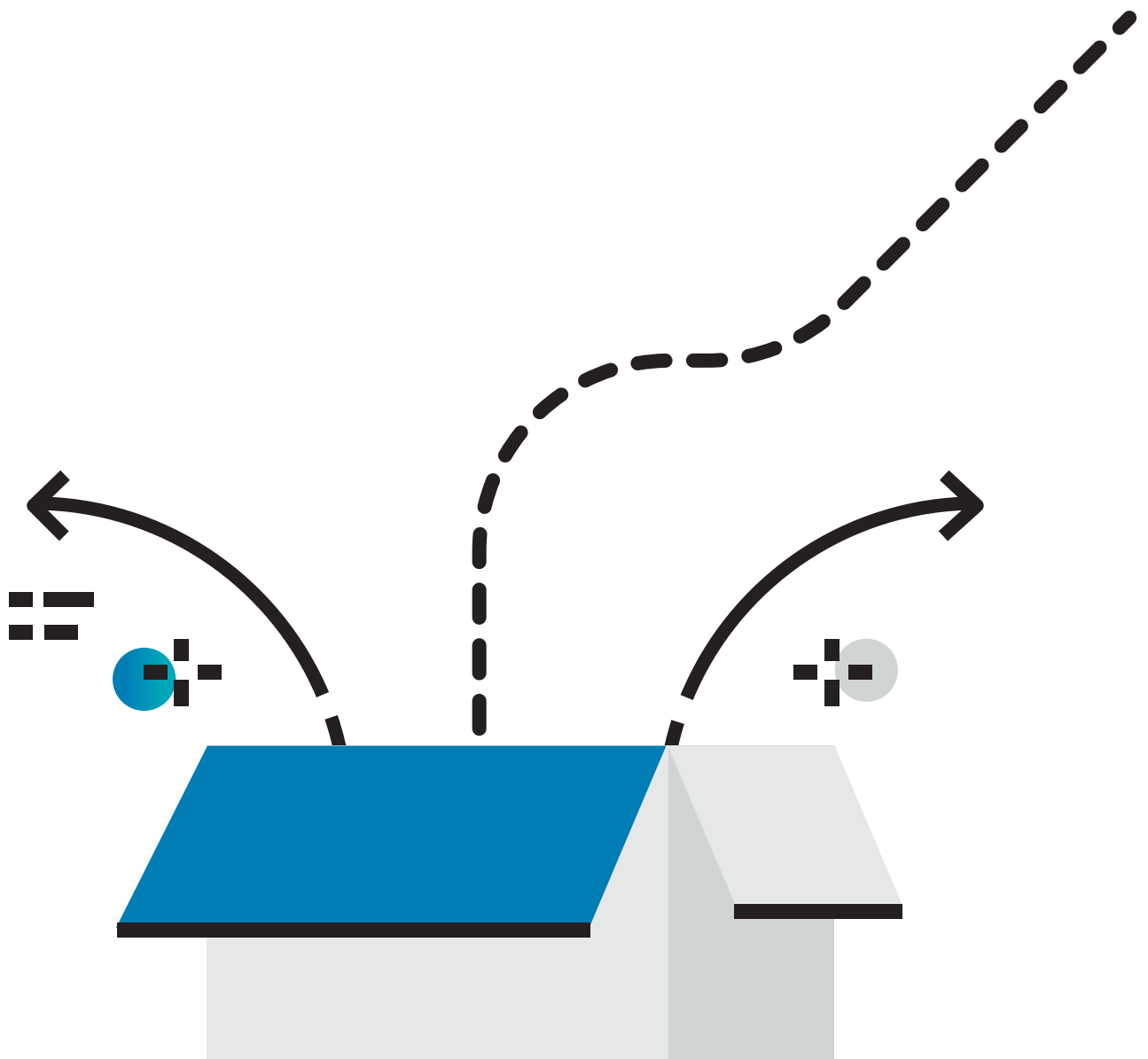
Partner
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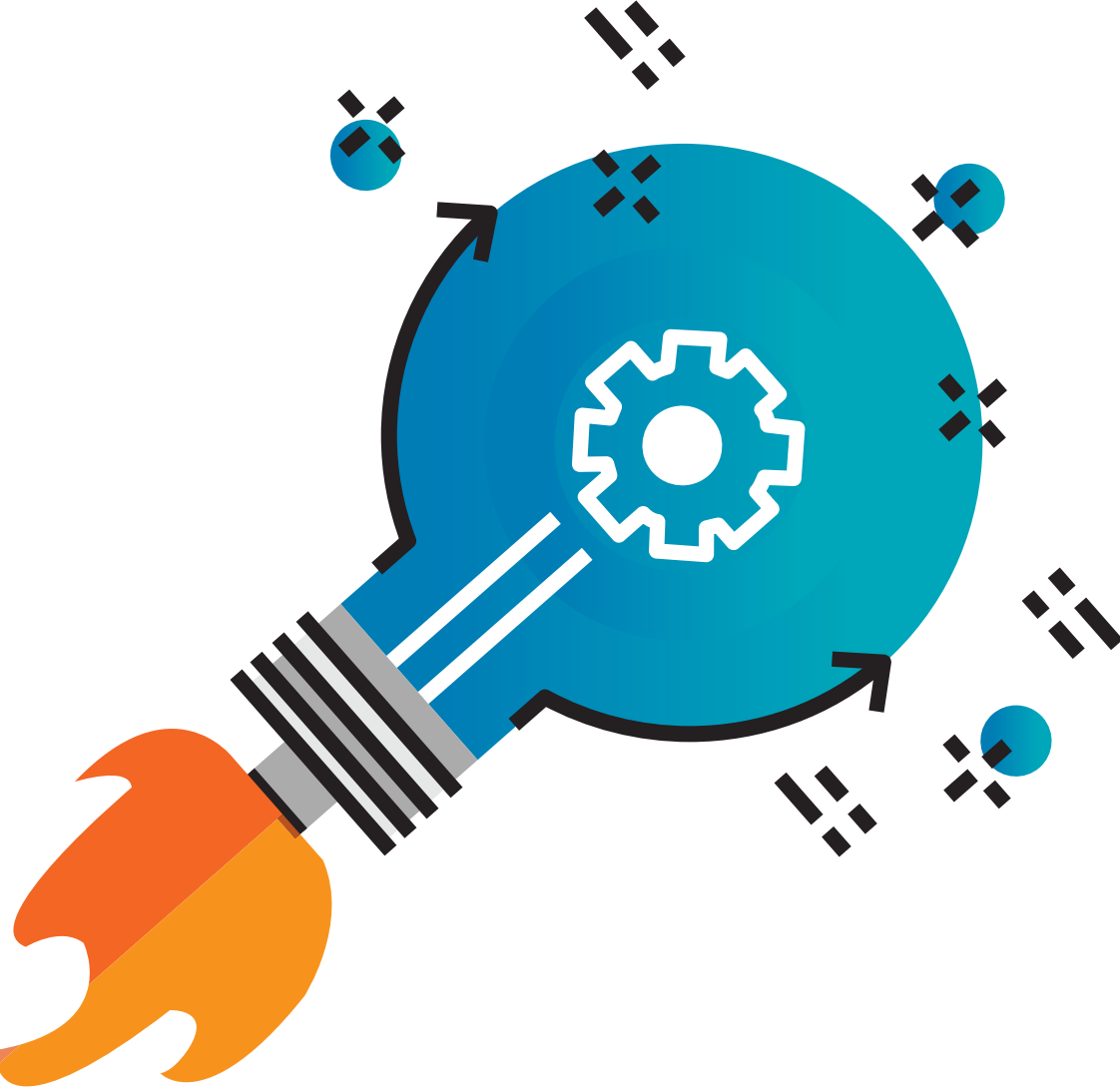
Johannes Schlotmann

Manager
Consulting
Deloitte

Cyrill Fischer

Senior Consultant
Consulting
Deloitte



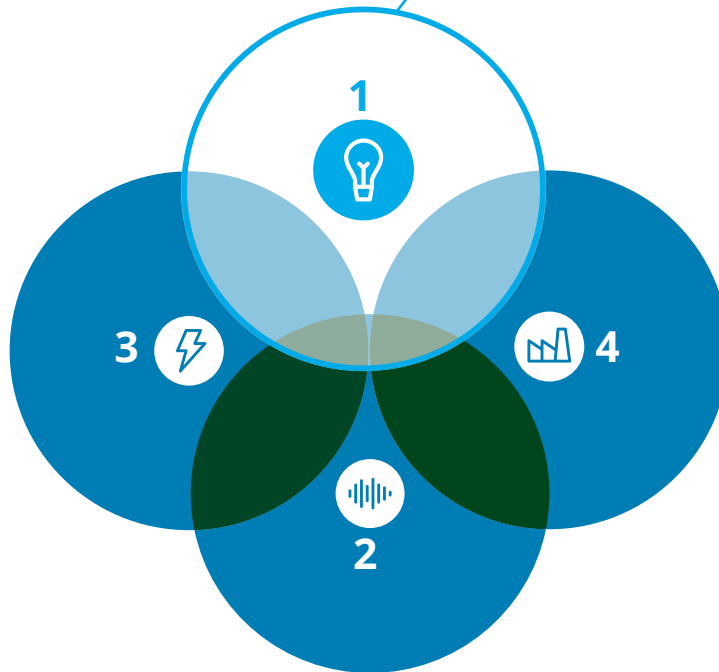


Since the year 2000, European wealth management has faced a constant decline in profitability, with profit margins falling by 40 percent, despite considerable market volume growth of over 60 percent in the same period. This shows that wealth managers are increasingly failing to serve clients successfully with the traditional business model.

Nevertheless, innovation ambitions in wealth management revolve around existing business challenges and rarely exploit opportunities to create value in new ways. Analysis indicates that the industry is facing an innovation gap that requires a change of key beliefs in leadership and the acceptance of new realities in order to be filled. Innovation needs to be formally embedded into a wealth management organization to embrace a successful change of the traditional business model. ➔

What we mean by innovation?

In the context of a transforming banking ecosystem, innovation is often associated with other concepts and disciplines related to change, but their definitions clearly distinguish them:



1. Innovation

(separate from invention) is the creation of a new (to the market or the world), viable (creating value for clients, stakeholders, and the organization itself) business offering (ideally going beyond products to platforms, business models, and client experience)

2. Digitization

is the transformation of business activities by the introduction and use of information technology

3. Industrialization

is the concept of reducing the cost base and re-thinking the value creation process through the elimination of redundancies, smart sourcing, automation, and standardization

4. Disruption

is a process whereby a smaller company with fewer resources is able to successfully challenge incumbent businesses; disruption typically originates in low-end or new-market niches

As opposed to digitization and disruption, innovation depends on the creation of economic value. While industrialization and innovation have this in common, innovation is much broader in its application and does not focus specifically on cost reduction. Disruption on the other hand can be considered contradictory to industrialization: while industrialization is a process for players with mature business models to defend their market shares and profitability, disruption is a process for players with new business models to gain shares of the market.

Innovation requires an understanding of whether clients need or desire an invention, and also how it can be delivered. **Innovation** has to provide economic value, i.e., it must be able to sustain itself, and return in excess of its weighted average cost of capital

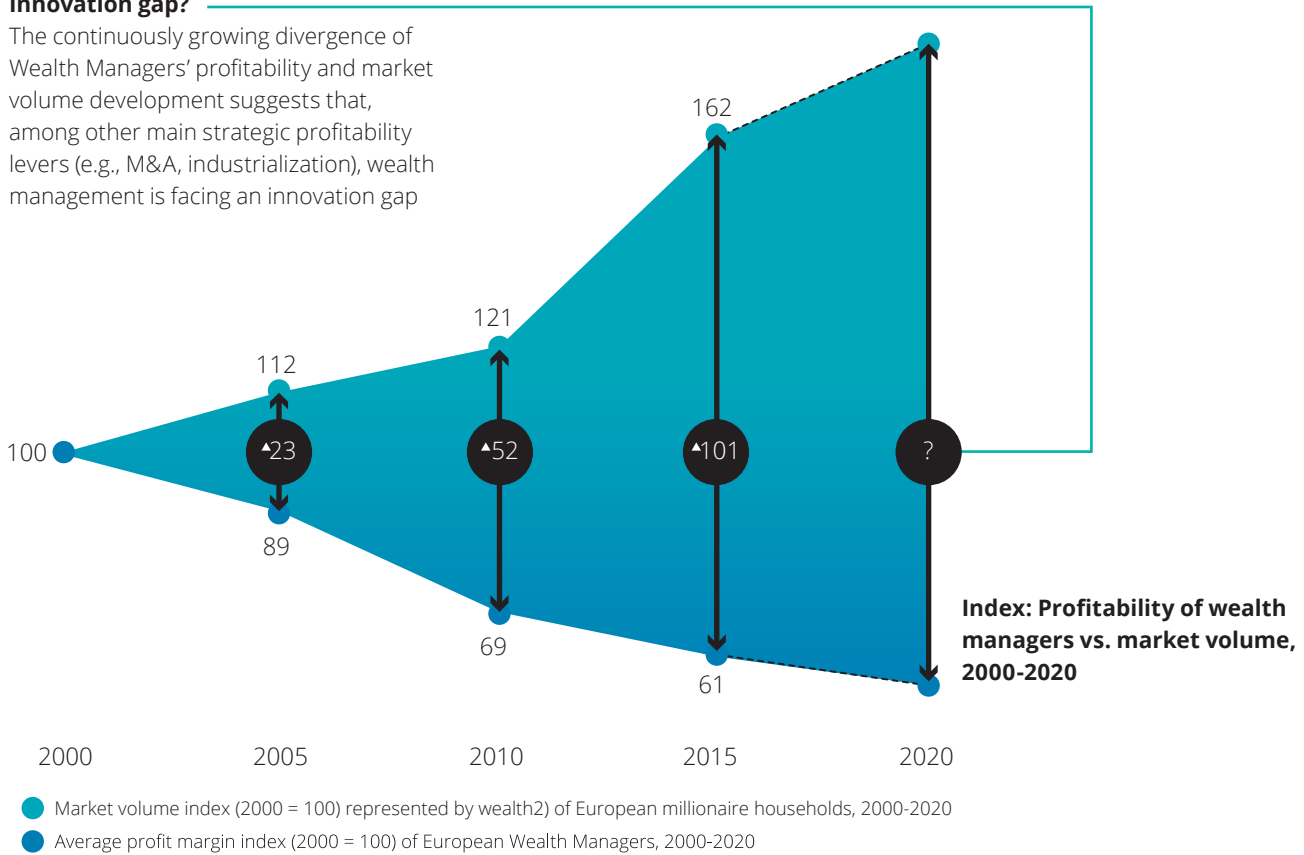
Innovation does not have to be new to the world, only to a market or an industry, and can be based on previous advances

It's about time for innovation in wealth management

Wealth management has now reached a point where a mind shift has become essential. The profitability of European wealth managers has been in constant decline in recent years, with profit margins falling by 40 percent between 2000 and 2015. During the same period, the market size for private banking measured by the bankable assets of European millionaire households has grown by more than 60 percent. This increasing gap between profitability and market size shows that wealth managers are increasingly failing to serve clients successfully with their existing business models of an integrated value chain (average industry integration level of above 80 percent). This suggests that the industry is facing an innovation gap, since industrialization and M&A-the other two main strategic growth levers-have already been employed for years.

Innovation gap?

The continuously growing divergence of Wealth Managers' profitability and market volume development suggests that, among other main strategic profitability levers (e.g., M&A, industrialization), wealth management is facing an innovation gap



...and the time is about right...

Typically, innovations result from a conscious, purposeful search for innovation opportunities, which are found only in a few situations, such as changes in the industry structure or demographics, or changes in the perception of an industry, economic incongruities, or the appearance of new knowledge. All these can be found today in the wealth management industry. An increasing number of FinTechs active in wealth management (+300 percent in the past three years) is disrupting traditional industry structures; millennials will form 50 percent of the global workforce by 2020, creating demographic change; and the global regulatory agenda has triggered the reshoring of assets, adversely affecting the prospects for cross-border wealth management.

...but ambition is lacking

Based on a comprehensive view of the wealth management industry, we identified 28 unique innovations from wealth managers and 11 from FinTechs, and mapped them according to their "type of innovation" and "innovation ambition" to create a clear picture of where and how innovation takes place in wealth management.

Wealth managers' lens

Innovations addressed today are mainly configuration- and experience-driven, and revolve around the core business with only outliers touching transformational ideas

FinTech lens

FinTechs accelerate the change of the traditional business model in wealth management although they are not as transformational as commonly presumed.

Summary: Focus areas of innovation

The innovation ambitions in wealth management combined from wealth managers and FinTechs revolve mainly around the existing core business (82 percent) with only limited adjacent (12 percent) and transformational (6 percent) innovation efforts; the main innovation types addressed today are clustered around process (18 percent), structure (14 percent), and client engagement (15 percent). ➔

The focus on process and structure can be attributed to the wealth managers' industry-wide strategic priority of reducing costs through standardization and digitization, triggered by increasing economic pressure and technological advancement.

Innovations in the area of client engagement are mainly driven by FinTechs and concentrate on enhancing the existing processes, still mainly on client experience that is dependent on personal interaction. Having realized that wealth managers might be a more attractive client segment than private clients, which is in great need of digital solutions, FinTechs increasingly specialize in offering flexible, innovative B2B solutions to wealth managers to help them close their digital transformation gap and thus have a strong focus on the innovation type process.

In conclusion, it seems that innovation in wealth management still plays a subordinate role, with most innovations being responses to existing business challenges rather than innovations based on the identification of opportunities to create value in a new way.

Enabling innovations that can change the business model...

While eliciting a change of business model typically requires the employment of multiple types of innovation, with a focus on shifts in the profit model and client engagement, efforts in wealth management concentrate mainly on digitizing processes and structures in the existing business model. Instead, wealth managers could exploit innovation opportunities in a more transformational way by re-designing instead of reorganizing their infrastructure (e.g., through Cloud Computing, Open APIs, Orchestrating), deepening their understanding of client needs (e.g., through Social Listening, Instant Client Feedback), identifying new sources of revenue (e.g., supplementary Client Care Services, Digital Security Services) and refreshing their brand (e.g., through Sub-branding, Ingredient Branding).

...requires a shift in the leadership's mental model...

Innovations come to a halt, or fail, for many different reasons, but most often it is because superficial changes to improve performance are not sufficient to affect a fundamental transformation. Innovation requires change at a deeper level—a change of the leadership's key beliefs—as these typically affect attitudes and culture throughout the organization. Wealth management is built around traditional assumptions, behaviors, and beliefs about how to create value that drives the strategies leaders deploy and guide their decision-making. These assumptions and key beliefs need to be exposed to the new realities of today's world and the future by monitoring trends and their implications, and recognizing the urgency and importance of innovation.

If leaders are to drive innovation effectively, they should have a mindset that favors collaboration and is not functionally-focused; this mindset rarely occurs without encouragement: innovation leaders need to be developed alongside innovation capabilities, starting with a structured approach to enact a mind-shift.

1. Expose

Challenge prevalent key beliefs and expose the leadership to facts and new insights into how others in the industry operate under adopted key beliefs.

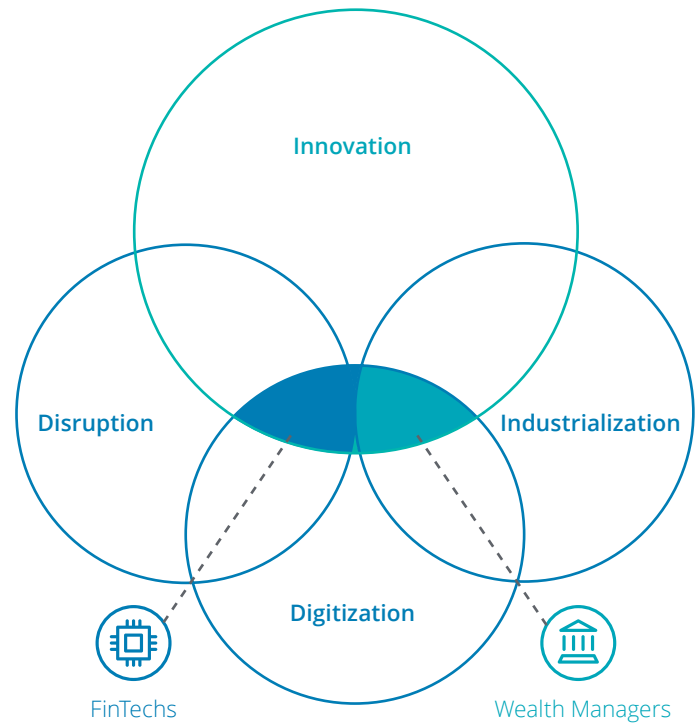
2. Understand

Engage leadership around the urgency and importance of transformational innovation in wealth management.

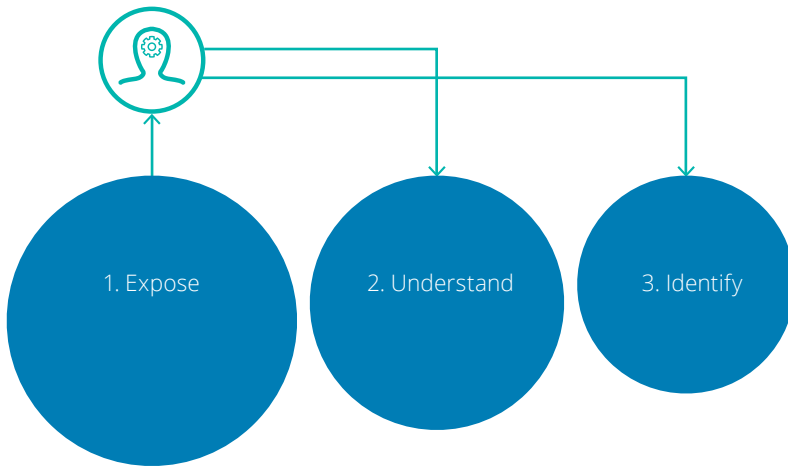
3. Identify

Identify opportunities and disruptive threats, and how trends could change the existing business model.

Categorization of innovations in wealth management



Categorization of innovations in wealth management



...and an effective innovation system

Once the leadership is on board, innovation needs to be formally embedded as a management discipline and the corporate culture needs to be opened up toward divergent thinking. This calls for a systematic change that, based on an analysis of successful leaders in innovation, requires four building blocks to be in place: approach, organization, resources and competencies, and metrics and incentives.

A tailored approach should be built around clear definitions and methodologies for the work to be done in generating innovation, and innovation should be managed as a portfolio. Accordingly, the appropriate talent and capabilities need to be acquired and nurtured. In this context, and as a starting point, wealth managers should clarify the role of partnerships. ●

To the point:

- Wealth managers seem to be increasingly failing to serve clients successfully with their existing business models.
- The situation in wealth management with a changing industry structure and demography favors innovative ambitions.
- Innovation in wealth management predominantly focuses on existing business challenges rather than on opportunities to create value in a new way.
- Enabling transformational innovation requires a mind shift of senior management as well as a formal embedment of innovation in wealth management organizations.

Innovation building blocks and critical capability levers



Approach

Innovation strategy: Defining goals for innovation and thematic opportunities to pursue

Pipeline and portfolio management: Managing innovation initiatives in a pipeline and portfolio

Process: Moving innovations from abstract hypotheses to business cases and launched businesses



Organization

Senior leadership: Engaging senior leaders with innovation

Governance: Defining how and by whom innovation decisions are made

External connection: Setting up mechanisms for identifying and leveraging external capabilities



Resources and competencies

Funding: Devoting financial resources and installing mechanisms for accessing the funding

Talent management: Attracting and deploying the right skills at the right time

Innovation tools: Providing software, tools, and techniques for different aspects of innovation



Metrics and incentives

Rewards: Installing monetary incentives, formal and informal recognition of contributions

Innovation metrics: Defining targets and indicators to guide decisions and measure progress

External attraction: Fostering and incentivizing other organizations to participate in innovation





GETTING A HANDLE ON FINANCIAL *CRIME* COMPLIANCE IN SOUTHEAST ASIA

Regulatory compliance, the beasts of burden? With the avalanche of shifting regulatory requirements and new criminal threats, the investment management sector will have to innovate and evolve compliance frameworks as well as rethink current day models. ▶

Radish Singh

Partner
Forensic
Deloitte

Managing financial crime compliance is becoming increasingly critical for investment management (IM) firms such as investment asset managers, retail fund providers, edge funds, wealth managers, investment platforms, and asset service providers in Southeast Asia (SEA).

Financial crime threats in SEA

Financial institutions in Singapore and Malaysia—two strategic locations with porous borders and open economies—face the threat of money laundering. IM firms in these two countries are particularly at risk of being conduits for money laundering with their primary business of receiving and making investments internationally susceptible to such crime.

In light of this, the regulators in Singapore and Malaysia have developed specific Anti-Money Laundering (AML) and Counter Terrorist Financing (CFT) regulations to impose compliance requirements on IM firms in order to manage the AML/CFT risks to which they are exposed. These regulators have set a strict tone on the tightening of governance, Customer Due Diligence (CDD) processes, and strengthening of internal controls.

With these constant updates, the regulatory bar is rapidly rising. Keeping this in mind, what do IM firms have to look out for and how can they develop their Financial Crime Compliance (FCC) framework to meet the ever-changing regulatory requirements and expectations?

First, we must consider the common regulatory themes when developing an FCC framework. Malaysia revised its Guidelines on Prevention of Money Laundering and Terrorism Financing for Capital Market Intermediaries in 2014 and Singapore published its amended Prevention of Money Laundering and Countering the Financing of Terrorism – Capital Markets Intermediaries in 2015. While regulations in

these two countries differ, IM firms in both Malaysia and Singapore should take note of four key regulatory themes:

a) Applying a risk-based approach

IM firms are required to develop sound policies and procedures to manage risk. Based on these policies and procedures, these institutions need to perform a risk assessment, monitoring risk mitigation of money laundering and terrorism financing risks.

b) Screening new launches for money laundering and terrorism financing risk

New products and technologies need to be screened for money laundering and terrorism financing risk, and necessary approval is required before products, practices, and technologies can be launched.

c) CDD for all customers

Screening is mandatory for all customers, natural persons appointed to act, connected parties, and beneficial owners, regardless of risk profiles. All IM firms are expected to perform ongoing monitoring of their customers and detect money laundering and terrorism financing risks. In addition, firms must identify the beneficial owner of entities and trusts that they are working with. Regulators in both countries allow the use of the threshold of 25 percent ownership to identify the natural person who ultimately owns the legal person or arrangement.

d) Reliance on third parties and group policy

The guidance in both Singapore and Malaysia allows for the use of third parties by firms when performing CDD, but sets out limitations in terms of the extent to which these third parties can be used. For example, in Malaysia, IM firms must apply a risk lens to discern the reliance on third parties they engage; where the key consideration is the extent the third party has applied recommendations from the Financial Action Task Force on Money Laundering (FATF). Firms are prohibited from relying on third parties to verify the beneficial owner and those located in higher risk jurisdictions. In Singapore, there is a requirement for IM firms to implement group policies and procedures for its branches and subsidiaries within the financial group to share information required for the purposes of CDD, and for money laundering and terrorism financing risk management. Furthermore, the Singapore regulations do not allow third parties to perform ongoing monitoring for the IM firm. Reliance on third parties is subject to appropriate assessment and proper arrangement with the third party that the IM firm is relying upon. ➔

Malaysia revised its Guidelines on Prevention of Money Laundering and Terrorism Financing for Capital Market Intermediaries in 2014 and Singapore published its amended Prevention of Money Laundering and Countering the Financing of Terrorism (Capital Market Intermediaries) in 2015.



“Effectiveness” is the new buzzword

In the current landscape, compliance will only get more challenging and costly. So what can firms continue to do to enhance their financial crime compliance framework?

Getting the correct FCC compliance target operating model sounds simple. However, the more complex the IM firm and its business, the more challenging it is to administer control and surveillance. In addition to the business-as-usual activities, ensuring effective responses to address tightening regulatory changes and increasing regulatory expectations demands equal attention.

It is important for the compliance culture to shift from being process-driven to being “risk aware” in order to appreciate the complexities of the FCC operating models, and appropriately adapt in response to new threats and emerging typologies with its associated red flags.

While it may be tall order, a good starting point is to develop three lines of defense—the front office, compliance, and audit—with calibrated risk tolerance principles that work like a well-oiled engine to detect and prevent financial crime. This demonstrates, inter alia, that the IM firm has a good grip on its “single client view” and is effective in monitoring and managing FCC risk.

Board governance and management supervision must be demonstrable. Although easier said than done, there is a need for evidence-clear reporting, the provision of good-quality risk dashboards, and clear channels to escalate key findings. The boards and management should be actively involved in critical decisions in the management of FCC risk for the organization.

The FCC risk assessment across the IM firm and lines of business needs to be effective in calculating inherent risk and assessing the robustness of controls to manage such risk. The outcome of the risk assessment

It is important for the compliance culture to shift from being process-driven to being “risk aware” in order to appreciate the complexities of the FCC operating models, and appropriately adapt in response to new threats and emerging typologies with its associated red flags.

must—and it is critical that it does—inform the overall framework, policies, procedures, process architecture, people, technology, customer risk profiling, monitoring, and assurance exercise as well as help design the Money Laundering Reporting Officer (MLRO)’s dashboard to the management.

While the subject may not sound exciting, it is worth repeating the importance of continuously beefing up the gatekeeping function, i.e., performing robust Know Your Customer (KYC)/CDD processes. The better the quality of the CDD process, the better the ability of the IM firm to assess customer risk and monitor the relationship on an ongoing basis. Firms need robust regimes to not only identify risks at the point of onboarding but monitor such risks throughout the lifecycle of the customer with the firm.

To do so, IM firms will need to separate their operational and advisory functions. It is important that the employees who have “business-as-usual” tasks and those that ensure the effectiveness of the controls framework are not one and the same.

IM firms should also be aware of the evolution in trade finance compliance or trade-based money laundering compliance and correspondent banking relationships oversight. For their trade business, firms need to institutionalize a framework that broadly addresses the review of risk through the trade documentation, trade routes and vessels, screening of parties, assessment of the legitimacy of goods (from dual use risk and under/overpricing), and whether sanctioned parties or countries are involved. There is very little appetite from regulators for failures in the compliance framework for IM firms that undertake trade finance business or establish correspondent banking relationships.

In addition, having a transaction monitoring system that focuses on link analysis can help. This allows for common sources of wealth or ultimate beneficial owners’

transactions to be assessed holistically. IM firms should make more investments in analytics to optimize the transaction monitoring technology to improve the effectiveness of the monitoring as well as the challenge and audit abilities.

IM firms should also look into the documentation of the overall control architecture, which includes the labyrinth of processes and technologies put in place to mitigate FCC risks. This can be documented as a single source of truth and assessed to ascertain whether the controls environment meets regulatory standards and whether there is more work needed to plug gaps.

Continued vigilance

The FCC framework will continue to evolve in line with the changing business landscape and regulations are expected to tighten.

When implementing a risk-based approach, identifying key indicators where the IM firm needs to perform a deep-dive analysis to address any potential risks, and the sufficiency of controls in place to manage such risk, is essential. The regulatory bar on financial institutions (FI), including IM firms, in Singapore and Malaysia have risen so much today that “risk-based approach” translates to “heightened risk-

based approach” when designing AML/CFT frameworks and assessing associated risks and controls. Compliance frameworks simply need to be prudent and defensible in today’s regulatory environment.

In addition, with the recent actions instituted by regulators in both Malaysia and Singapore on certain FIs, the regulatory arbitrage should narrow fairly swiftly with industry participants expected to further tighten compliance efforts. IM firms in SEA will also be required to invest more in this area as they harmonize their global regulatory standards and guidelines across their footprint markets. The natural consequence of this will arguably be increased compliance costs with resultant thinning profit margins for some.

However, it is important for FCC leaders to keep in mind that the monetary penalties for non-compliance and damage to a firm’s reputation far outweigh the cost of compliance. On the plus side, this may call for integration or more innovation in business, cost effective service delivery models, digitization and compliance efficacy, and use of utilities that can operate within the regulatory regime without impediments to not just reduce cost, but also manage risks. ●

To the point:

- Managing financial crime compliance is becoming increasingly critical for IM firms.
- Regulators in Singapore and Malaysia have developed specific regulations to impose compliance requirements on IM firms to manage AML/CFT risks to which they are exposed and have set a strict tone on the tightening of governance, CDD processes, and strengthening of internal controls.
- It is important for the compliance culture to shift from being process-driven to being “risk aware” in order to appreciate the complexities of the FCC operating models.
- A good starting point is to develop three lines of defense—the front office, compliance, and audit—with well-calibrated risk tolerance principles to detect and prevent financial crime.
- Board governance and management supervision must be demonstrable.
- FCC risk assessment across the IM firm and lines of business needs to be effective in calculating inherent risk and assessing the robustness of controls to manage such risks.
- The better the quality of the CDD process, the better the ability of the IM firm to assess customer risk and monitor the relationship on an ongoing basis.
- The regulatory bar on FIs in SEA has risen so much today that a “risk-based approach” translates to a “heightened risk-based approach”.

While the subject may not sound exciting, it is worth repeating the importance of continuously beefing up the gatekeeping function, i.e., performing robust Know Your Customer (KYC)/CDD processes. The better the quality of the CDD process, the better the ability of the IM firm to assess customer risk and monitor the relationship on an ongoing basis.

Modernizing mutual fund reporting for today's environment



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Investment company reporting modernization rule overview

On 13 October 2016, the Securities and Exchange Commission (SEC) adopted new forms, rules, and amendments to modernize the current reporting and disclosure requirements of certain Registered Investment Companies (RICs). As the primary regulator of the investment management industry in the United States, the SEC continually identifies opportunities to address growth and complexity in the industry. In addition, as RICs grow, they will likely continue to innovate through the introduction of new products, fund types, and strategies.

While the industry has experienced unprecedented growth, the environment in which investment managers operate has also evolved.

The new requirements will improve enhance and standardize data reporting for mutual funds, ETFs and other RICs. Harnessing new available technology can help the SEC consume data from RICs in a more streamlined fashion, leading to enhanced aggregation and dissemination capabilities. The combination of a growing and complex industry and the cutting-edge technology designed to support it has led the SEC to adopt a rule that modernizes the current reporting regime by improving the quality of data provided to investors and helping regulators collect and analyze fund data more efficiently.

A number of specific drivers are behind the SEC's rule to increase reporting regulations. They include:

New product structures



New fund types and increased use of derivatives have added complexity and risks to the fund strategies.

Technology advances



New data tools allow the SEC to improve their collection and analytics of reported information.

Data aggregation and analysis



New reporting requirements enable investors and other market participants to simplify aggregation and analysis efforts.

Reporting utility



Existing reporting requirements have become outdated or of limited use to the SEC, market participants, and investors.

Compliance examinations and inspections



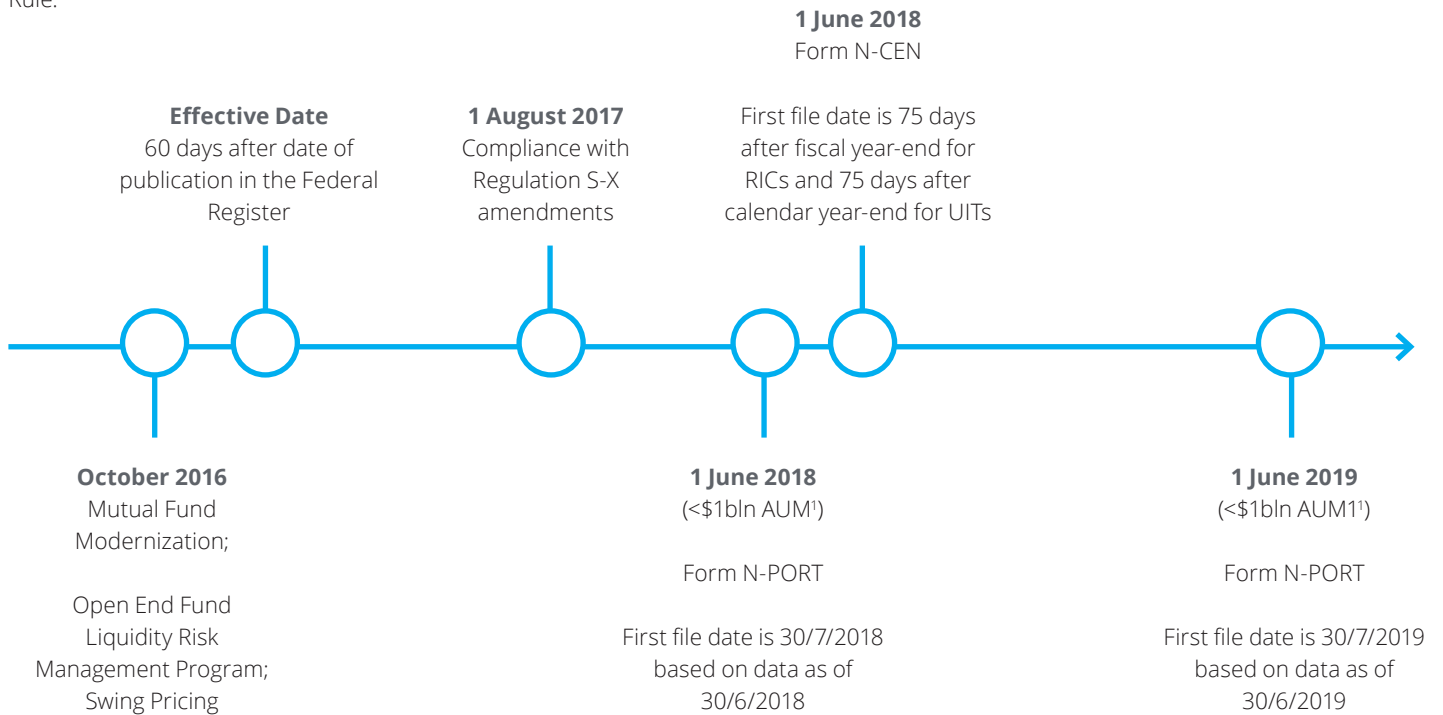
New reporting requirements enable the SEC to compare and analyze information across the industry to identify trends, outliers, and data inconsistencies.

Understanding the requirements and impacts

The table below provides a summary of the final SEC Modernization Rule:

Form, rule, or amendment	Requirements of form, rule, or amendment	Compliance dates
<p>New form N-PORT (replaces Form N-Q, which will be rescinded as of 1 August 2019)</p>	<ul style="list-style-type: none"> • Affects RICs and Exchange Traded Funds (ETFs) organized as Unit Investment Trusts (UITs), except money market funds and Small Business Investment Companies (SBICs). • Requires holdings information about each fund including type of derivative instrument within each asset category; repurchase agreements; controlled foreign corporations; legal entity identifier; securities lending activities; qualitative analysis, including strategy/risk; portfolio and position-level risk analytics; flow information; total returns for each of the preceding three months; and liquidity levels. • Monthly filings no later than 30 days after each month-end, with every third month made publicly available 60 days after quarter end. • Filed in Extensible Markup Language (XML). • Portfolio information must be reported on the same basis 	<ul style="list-style-type: none"> • 1 June 2018 compliance date; first file date is 30 July 2018, based on data as of 30 June 2018 (for RICs greater than or equal to US\$1B in AUM) • 1 June 2019 compliance date; first file date is 30 July 2019, based on data as of 30 June 2019 (for RICs less than US\$1B in AUM)
<p>New form N-CEN (replaces Form N-SAR, which will be rescinded as of 1 June 2018. Last filing on Form N-SAR will be for funds with semi-annual periods ending 31 March 2018.</p>	<ul style="list-style-type: none"> • Affects RICs, including money market funds. • Requires census-type information, including background and classification of funds; investments in controlled foreign corporations; securities lending—collateral manager, lending agent, reporting period, and fund expenses waived, reduced, or recouped. • Expanded to reflect new market developments, products, investment practices, and risks. • Requires information about a fund's directors and chief compliance officer. • Requires disclosure regarding reliance upon certain rules under the Act during the reporting period. • Filed 75 days after fiscal year-end for RICs and 75 days after calendar year-end for UITs in XML format. • Requires information on exemptive orders being relied upon. 	<ul style="list-style-type: none"> • 1 June 2018 compliance date; first file date is 75 days after fiscal year-end for RICs and 75 days after calendar year-end for UITs
<p>Amendment to Regulation S-X</p>	<ul style="list-style-type: none"> • New and standardized disclosures in fund financial statements and changes to disclosures of open futures, forward Foreign Exchange (FX), swap, and option contracts. • Disclosures related to referenced rates and spreads, realized gains or losses, and total net increase or decrease in unrealized appreciation or depreciation for affiliated investments. • Requires funds to indicate the interest or dividend rate and maturity date for certain debt instruments; identify securities held in connection with open put or call option contracts and loans for short sales; identify whether a derivative cannot be sold because of restrictions applicable to the investment. 	<ul style="list-style-type: none"> • 1 August 2017

The high-level timeline below depicts the major milestones required to achieve compliance with the SEC Modernization Rule.



1 Defined as funds in the same group of related investment companies.

Notes:

- Amended certifications to Form N-CSR will follow the same compliance timelines as Form N-PORT. Timeline to comply with reporting a change of the independent public accountant on Form N-CSR will be consistent with the timeline for reporting other information on Form N-CEN. Thus, rescission of Form N-SAR will not be delayed beyond 1 June 2018. The last filing on Form N-SAR will be for funds with fiscal year ending 31 March 2018
- Replacement of form N-Q will be delayed until 1 August 2019 (with the last Form N-Q filing date of 31 May 2019) to allow funds sufficient time to satisfy Form N-Q's 60-day filing requirements for the final filing on Form N-Q for the reporting period preceding the first filing on Form N-PORT ➔



Some key challenges

In order to satisfy the requirements of the SEC Modernization Rule, fund sponsors and service providers will be encouraged to invest in people, process, and technology to address certain challenges.

Challenges can be depicted along industry, infrastructure, and data dimensions:

Industry challenges

Data sourcing and aggregation

- Information required for form N-PORT and N-CEN must be aggregated from multiple source systems
- Liquidity risk levels must be incorporated into Form N-PORT. (See new Rule 22e-4, the newly adopted rule requiring investment companies to implement liquidity risk management programs)
- Information will be sourced from financial intermediaries
- Third-party service providers and RICs will need to reevaluate data collection in order to meet the frequency of N-PORT filings

Implementation timeline

Large fund complexes will need to do the following by 1 June 2018:

- Obtain project funding
- Determine the source of the required data
- Design and implement operating model changes
- Hire and train resources
- Perform functional testing as well as finalize procedures and controls

Compressed filing timeline

N-PORT is required to be filed monthly within 30 days of month end instead of 60 days after the first and third quarter end for Form N-Q. The following may pose submission error risk in a compressed timeline:

- Manual data collection and report creation
- Manual review and signoff procedures
- Increased frequency of filings to the SEC

Complex calculations

Form N-PORT will require complex calculations at a high frequency for portfolio risk metrics information and monthly returns attributable to derivatives.

Harnessing new available technology can help the SEC consume data from RICs in a more streamlined fashion, leading to enhanced aggregation and dissemination capabilities.

Infrastructure challenges

Strategic

Additional departments may need to provide input to complete form N-POR and N-CEN including:

- Involving the appropriate resources required to interpret rule requirements
- Increasing oversight of service provider(s) that support data collection, processing, and form filing

Operational

There is a potential need to:

- Enhance procedures for ongoing data collection, validation, and filing with the SEC
- Increase resources to accommodate compressed and increased filing timelines

Technology

Developing appropriate data sourcing and aggregation processes will be integral to success, including solutions to perform:

- Calculations
- Derivatives disclosures
- Validation of data and store data elements [▶](#)





Data challenges

Transformation and Quality

Newly required data points to be reported increases the burden placed on RICs and their service providers to ensure information is compliant with the issued taxonomy within the given timeframe. Some of the key internal data issues and requirements include:

- Specific investment level asset type, issuer type, and derivative classifications should be readily available on a monthly basis
- Detailed reference data for underlying investments may not be readily available in current processes
- RICs may face challenges in reporting to their service providers due to investment-level liquidity classifications
- Investment- and fund-level securities lending data requirements could call for reporting enhancements
- Interest Rate and Credit Spread Risk monitoring requirements could create added burden to reporting processes

- Investment details and collateral information requirements will represent a significant compliance reporting mandate

Aggregation and Analysis of External Data

The aggregation of internal and external data sources may present challenges to reporting quality and timeliness of filings:

- Identifying who is responsible for providing external source data
- Understanding what types of data to expect and the degree of format consistency
- Determining reliable data transmission options to help ensure timeliness and data integrity
- Understanding reporting timelines to allow time to handle aggregation issues that may arise
- Standardizing the point where external data is incorporated to avoid confusion about the accuracy of data being consumed
- Verifying consistency of multiple data sources to match RIC interpretations and SEC reporting guidelines



Opportunities

Similar to other modernization initiatives driven by the SEC, opportunities will be available for firms that move efficiently to invest in people, process, and technology initiatives. The demands placed on RICs to comply with the SEC Modernization Rule will create opportunities to enhance existing reporting infrastructure. Opportunities include centralizing data, automating reporting and enhancing oversight.

Centralized database



- The SEC Modernization Rule will present an opportunity for fund sponsors to utilize a centralized database pulling from various source systems to generate reports for shareholder and regulatory needs.
- Previously inaccessible data, such as counterparty information, may now be accessible from a central database.

Data aggregation and analysis



- The SEC Modernization Rule will prompt third-party service providers to automate their reporting processes, thereby expanding automation capabilities across the reporting ecosystem.
- The new XML format will allow RICs to aggregate and analyze data more quickly and reduce the need for manual processing or data entry.

Enhanced oversight



- RICs may use the new information to identify enhancement opportunities within internal compliance and audit programs and proactively address compliance issues.
- Compliance can leverage additional information to provide observations and recommendations that can improve regulatory reporting as well as operational and technological infrastructure. [➤](#)

Reporting and Controls Considerations

Standardizing processes and workflow around modernization reporting will be important to achieve efficient and accurate data preparation, review, and filing. Firms should consider assigning appropriate responsibilities within cross-functional areas including Accounting, Financial Reporting, Compliance, and Risk Management. Additionally, potential procedures should consider how to embed timeline-driven operational workflows into the reporting process, enabling the evaluation of how events will be completed within the process.

Incorporating proper reporting controls can help achieve data integrity, security, and accountability within the workflow process. Control environment considerations will involve securing the filing application and controlling the progress of filing and output.

Securing the filing application may include leveraging administrator-controlled user IDs to allow access to specific datasets as well as workflow to track tasks at the RIC or fund level. Multi-level data security permissions (read/write) can also enhance the application control environment

Summary reporting can control filing progress and can be used to track the progress of responsibilities as well as be used as a management tool to update internal personnel as needed. Additionally, establishing an audit trail for output is another control consideration for firms. Audit trail controls can include documenting data loads and edits by specific user ID, tracking value overrides and deltas, and operational oversight to ensure internal compliance procedures are met. In addition, optimizing automation in the XML generation and submission process can save time and effort as the filing deadline approaches, and can minimize manual intervention to make updates to XML data that would modify what has been approved.



Who Is Affected

The below representative functional model depicts the relative impact the SEC Modernization Rule may have on the functional and technology landscape of a typical RIC.

Sales and client management	Product management	Investment management	Trade support	Fund operations	Client servicing
Marketing	Product strategy and development	Securities research & knowledge mgmt.	Trade confirmation rec. and support	Transfer agency*	Fund reporting distributions to clients
Wholesaling	Product management	Portfolio management	Post-trade compliance	Custody	Investor support call center
Order fulfillment	Reporting and disclosure	Fund data support and management	Clearing	Fund accounting*	
		Pre-trade compliance	Settlement	Fund administration	
		Portfolio risk management		Fund operations support**	
		Service provider management and oversight		Portfolio and performance attribution	
				Operations risk management	

* Functions are typically outsourced to a third-party service provider

** Includes Shared Services (e.g., Legal, Compliance, Information Technology Support).

Data management technology									
Customer relationship management	Product platforms	Analytics	Risk metrics	Order entry	Trade processing	Data sources/repositories	Books & records	Performance calculation engine	Reporting
				Mutual fund modernization impact					



What are firms thinking about now?

Many organizations are in varying stages of mobilizing to respond to the SEC Modernization Rule. Over the coming months, these organizations are expected to initiate planning, assess internal capabilities, and engage externally to accelerate understanding of and compliance with the rule.

1) Initiate planning

- Outline roadmap to guide implementation of systems and processes to support compliance with the Modernization Rule
- Assemble a dedicated team of business, operational, compliance, technology, and legal representatives
- Develop an understanding of the final Modernization Rule
- Identify the strategic impact of the Modernization Rule on current organizational initiatives
- Build a business case and seek funding to implement and operate target operating model

2) Assess capabilities

- Analyze the impact of changes to technology, such as regulatory reporting system upgrades, to meet the requirements of the rule and amendments
- Identify whether current data architecture can satisfy rule requirements
- Determine the impact of the final requirements on existing regulatory reporting processes

3) Engage externally

- Consult with existing custodian(s), fund administrator(s), intermediaries, and other external parties to identify operational and technology gaps, especially for RICs that rely on external service providers to support regulatory reporting activities
- Evaluate transformative opportunities to reduce duplicative reporting functions and enhance the current operating model ●

To the point:

- The SEC's new Modernization Rule requires increased reporting and disclosure requirements for certain RICs.
- Industry changes were the drivers for the new requirements, such as new product structures, technological advances, data aggregation and analysis, reporting relevance, and the SEC's need to identify trends and analyze data.
- Some challenges for implementation: data sourcing, implementation and filing timelines, more complex calculations, and identifying where data aggregation and reporting would reside.
- Potential opportunities stemming from the changes: centralizing data, automating reporting, enhanced oversight.
- Companies will need to assess their processes, data, and technology infrastructure to understand how they will meet the new requirements.

Specifically, the introduction of secure, easily accessible data sources such as the cloud, firm web portals, and other automated web-based solutions have emerged as primary tools for sharing and analyzing information.

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