

# Nine Trends Shaping the Future of Managing Assets



The RFS initiative was made possible through the generous support from EY AG, Morningstar Switzerland, Credit Suisse, GAM International, Raiffeisen Switzerland and Flossbach von Storch.



#### **University of St. Gallen**

Institute for Customer Insight ICI-HSG Bahnhofstrasse 8  
9000 St. Gallen  
+41 (0) 71 224 21 31  
[www.ici.unisg.ch](http://www.ici.unisg.ch)



#### **ETH Zurich**

Department Management, Technology and Economics  
WEV J 409  
Weinbergstrasse 56/58  
8092 Zürich  
+41 (0) 44 632 69 24  
[www.mtec.ethz.ch](http://www.mtec.ethz.ch)



#### **Ernst & Young AG**

Maagplatz 1  
8005 Zürich  
+41 (0) 58 286 31 11  
[www.ey.com](http://www.ey.com)

Redesigning Financial Services is an independent think tank founded by the Institute for Customer Insight at the University of St. Gallen (HSG), the Institute for Technology and Innovation Management at the Federal Institute of Technology (ETH), and EY. The RFS mission is to accelerate the structural transformation in the financial services industry in the interests of the customer.

[www.redesigning-fs.com](http://www.redesigning-fs.com)

# Editorial

This is a watershed moment for the asset management industry. New technologies are reshaping the sector, commoditizing large parts of the value chain, forcing incumbents to sharpen their value propositions. Inspired by platform models in other industries, clients are also advancing new demands with respect to the immediacy, connectivity and ubiquity with which they interact with their providers. At the same time, regulators are doing their best to prevent consumers from being sold inappropriate products, which are often the most lucrative for providers. As a result, regulatory costs continue to climb during a time in which fees are falling and a veritable battle to claim ownership of the client relationship has erupted.

And although the industry still enjoys growth in assets under management (mainly due to asset price inflation), the future is likely to become increasingly turbulent to players ignoring the structural changes taking place in the market. These structural changes are being driven by nine key trends that are already challenging the industry. Looking further ahead, asset managers who are willing to see the client as their compass are set to thrive in this environment, while the rest are likely to face accelerating headwinds.

We hope you enjoy reading this contribution to the dialogue, and invite you to share your thoughts with us.

Yours faithfully,



**Prof. Dr. Ernst Mohr**  
Professor of Economics,  
Institute for Customer Insight,  
University of St. Gallen



**Robert Ruttmann**  
Founder of Redesigning Financial  
Services, Institute for Customer Insight,  
University of St. Gallen



A blue-tinted photograph of a desk. On the left, a laptop is open, displaying a web browser with a line graph and a pie chart. The browser's address bar shows 'MALDOOR'. In the foreground, there is a white cup of coffee and a small plate with several cookies, including one shaped like a bear. The background is slightly out of focus, showing a window with blinds.

# Nine Trends Shaping the Future of Managing Assets

# The inexorable rise of passive products



**Investors continue to flock into passive products.**

Investors continue to flock out of active into passive products. Clearly, this trend is not new. Since 2007, the penetration of passive products in the equity space has nearly doubled in all parts of the world, reaching 44.1% in Asia, 25.2% in Europe and 41.7% in the US (**Chart 1a**). The narrative is only slightly different in the fixed income space: since 2007, the penetration of passive products in the US has also practically doubled to reach 27.3%, while growth in Asia and Europe has also been impressive (**Chart 1b**). As such, this structural trend is difficult to ignore – especially since it seems to be accelerating.

Although the near doubling in passive products since 2010 is impressive enough, the growth in 2016 is staggering. At the top-line, passive funds gained no less than USD 624 billion in 2016 globally, while active funds gained just USD 103 billion (**Chart 2**). In other words, flows into passive funds outpaced flows into active funds by a rate of 6 to 1.

The drivers of this flight to passive products are threefold: first, significantly lower fees. Fees for passive products make up just a small fraction of the fees charged by active managers.

A second driver for the flight to passive products is the difficulty active managers have in exceeding their benchmark returns. In fact, in 2016, only 24% of European active managers outperformed their benchmarks before costs, while only 8% reached this goal after costs (**Chart 3**).

The third and final driver for the flight into passive products is regulation. Directives like the Retail Distribution Review (RDR) in the UK have already incentivized greater price transparency, thus reinforcing the demand for simpler, more cost-effective passive products. MiFID II is set to have the same effect in Europe. Together, these three drivers are likely to keep the demand for passive products robust.

Chart 1

### The rise of passive products

Chart 1a: Percentage of assets in passive funds, equity USD



Chart 1b: Percentage of assets in passive funds, fixed-income USD

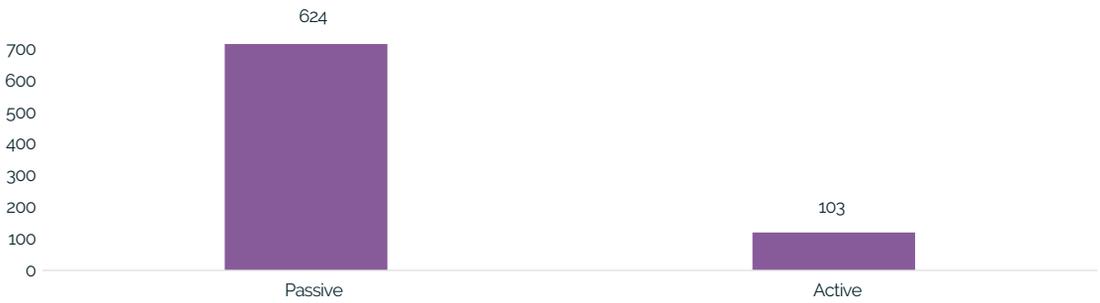


Source: Morningstar

Chart 2

### Investors flock into passive products

Asset flows in passive funds versus active funds globally in 2016 (in USD billion)



Source: Morningstar

Chart 3

### Few active funds beat the market

Chart 3a: Percentage of funds that outperformed their benchmarks in 2016 - before fees

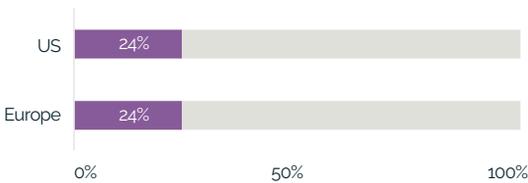
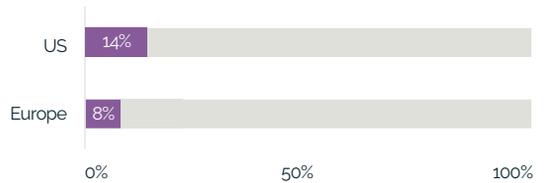


Chart 3b: Percentage of funds that outperformed their benchmarks in 2016 - after fees



Source: ifund research, 2017

# Costs, costs, costs

# 2

## Increasing cost sensitivities threaten high-cost active managers.

Costs matter. The implication of the shift to passive products is that investors have become increasingly cost-conscious. In fact, according to data collected by Morgan Stanley, price competitiveness became the primary determinant of reallocations between managers in 2016, surpassing even performance. The importance of costs has even doubled in relevance since 2012, especially in the equity space (**Chart 4**). Clearly, this increased cost sensitivity is being driven by the proliferation of low-cost alternatives, the elusive quest for alpha, and, of course, the low-yield environment.

But this story should not be reduced to active vs. passive. It is a story about low-cost vs. high-cost. In fact, since 2014, active investors have been voting with their feet by withdrawing vast amounts of money from the more expensive active funds, while low-cost active funds continued to see

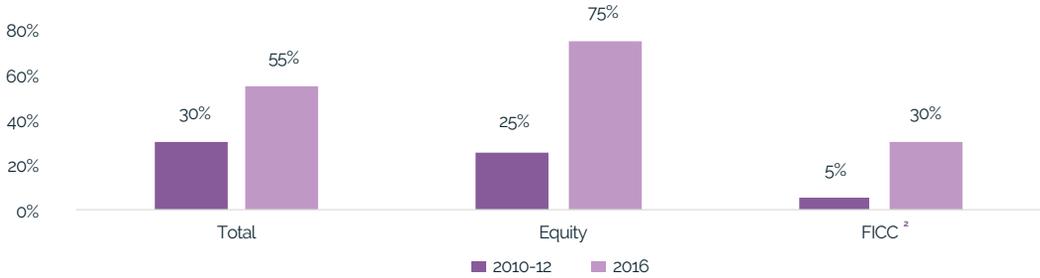
net inflows (**Chart 5**). This data suggests that the proliferation of passive funds, but also the underperformance of active funds relative to their benchmarks, have effectively lowered investors' willingness to pay for expensive active fund management.

The response by fund managers to these shifts in the industry have been noteworthy. Managers seem to be in denial about these structural changes. In comparison to active managers, passive funds reduced their fees in 2016 by 16% on average, while core active managers reduced fees by just 2% over the same period (**Chart 6**). So, active management is not dead. But as investors become more cost-sensitive, high-cost active managers may find it increasingly difficult to stem withdrawals from their funds. This represents a watershed moment in the asset management industry.

Chart 4

### Costs trump performance for reallocations of assets

Global active mutual fund flows where price was the primary determining factor, % of flows between funds<sup>1</sup>, 2010-2016



Source: Morgan Stanley, Morningstar.

Note: 1. The calculation is based on a comparison of average flows for groups of funds with similar performance and price characteristics.  
2. FICC: fixed income instruments, currencies and commodities.

Chart 5

### Shift from high-cost to low-cost active funds

Annual Net Flows for Active Funds by Fee Quintile (in USD billion)

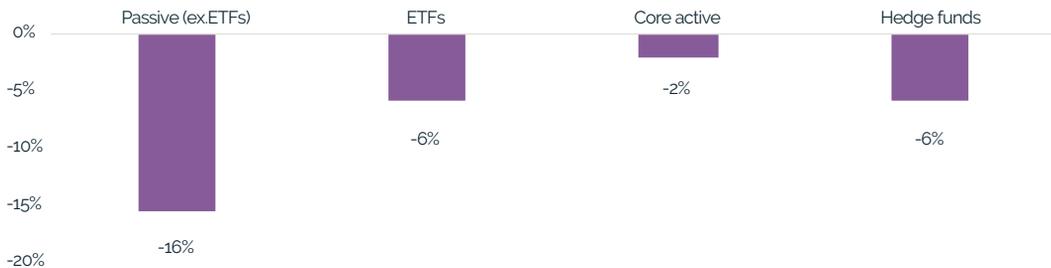


Source: Morningstar.

Chart 6

### Asset managers are cutting fees

Change in fees across different categories (in %), 2016



Source: Oliver Wyman analysis.

Note: Core active includes traditional, actively managed funds but excludes hedge funds and alternatives.

# The rise of smart beta

# 3

**As alpha becomes more elusive, smart beta strategies emerge as an effective defense.**

Active management is not dead. In fact, actively managed assets still account for no less than two-thirds of total assets invested on a global basis<sup>1</sup>. But alpha has become more elusive as more active managers struggle to outperform their benchmarks in a context of falling fees and shrinking margins. This challenge of generating alpha – or achieving returns in excess of the market – has become particularly acute in a low-yielding environment. To defend against this challenge, many managers are turning to “smart beta” strategies to enhance their returns.

“Smart beta” products employ passive index-following strategies, but use alternative index construction rules based on factors such as size, dividends, value, low volatility, momentum, and quality. The goal is always to achieve alpha, but also to lower risk, and to do this in a cost-effective way. As such, smart beta typically costs less

than any active strategy, but a little more than a traditional market-cap weighted index strategy (see **Figure 1**). In short, smart beta offers investors an inexpensive, easy, and transparent way to target alpha generation.

It is unsurprising that “smart beta” has attracted significant attention in recent years (see **Chart 7**). In fact, over the last five years, the “smart beta” exchange traded products (ETPs) have enjoyed average growth of 24% per year<sup>2</sup>, dwarfing the 5% growth rate of the asset management industry as a whole<sup>3</sup>. Looking ahead, as “smart beta” continues to gain traction as a low-cost tool to generate alpha in a low-yield, low-cost environment, more investors are likely to bet on “smart beta”.

1. Source: Morgan Stanley & Oliver Wyman, 2017, *Wholesale Banks & Asset Managers: The World Turned Upside Down*

2. Source: Morningstar, *A Global Guide to Strategic-Beta Exchange-Traded Products*, September 2017

3. Source: BCG, *Global Asset Management Growth Stalls in Worst Year Since Crisis*, 2016

Figure 1

## Smart beta as an attractive alternative

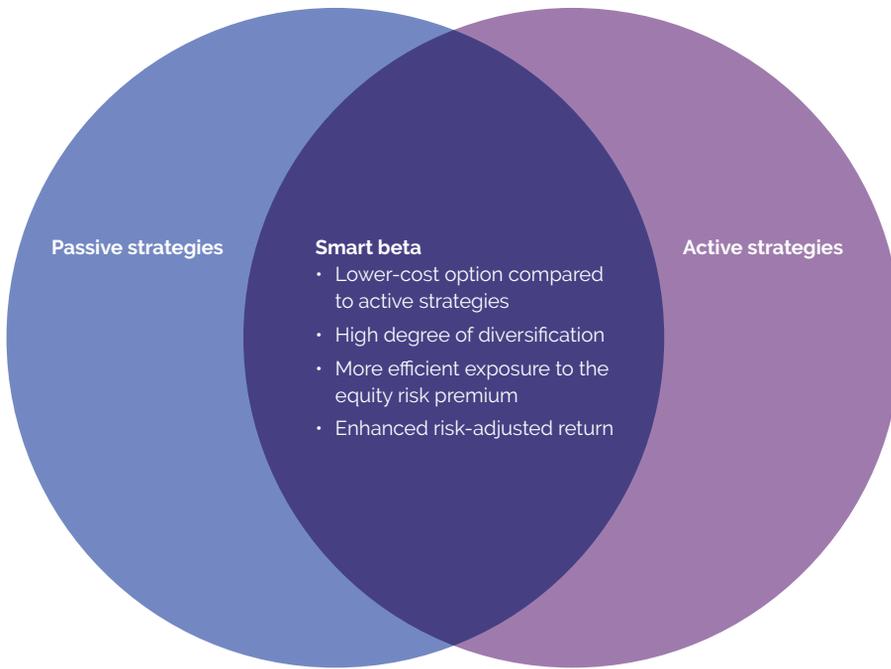
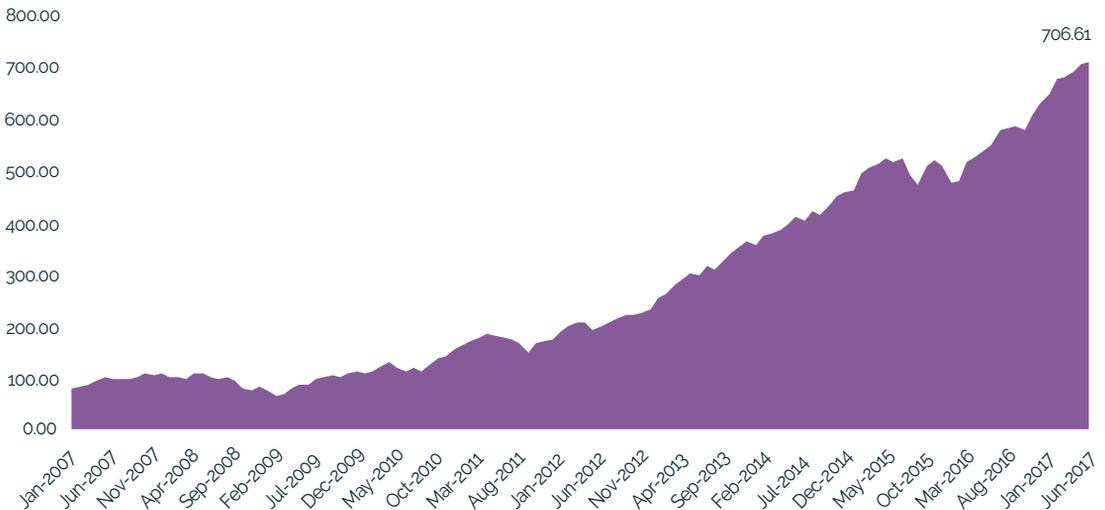


Chart 7

## The rise of smart beta

Global Strategic-Beta ETP Asset Growth (billion USD)



Source: Morningstar.

Note: The Global Strategic-Beta (i.e. smart beta) ETP Asset is calculated as a sum of the Strategic-Beta ETP Asset under Management (AuM) in regions including Europe, Canada, U.S. and Asia-Pacific.

# MiFID II – a watershed moment for the buy-side industry

# 4

**MiFID II is one of the biggest pieces of regulation to ever have hit the buy-side industry.**

The list of regulatory changes being implemented in Europe is long and varied, but MiFID II stands out as one of the most disruptive pieces of regulation ever to hit the industry. The directive is set to reshape the distribution model for asset management in two fundamental ways: first, the regulation will effectively ban commissions, incentivizing a structural shift to fee-based services; and second, the directive enforces rigorous requirements to provide independent advice in the interest of the client with increasing cost transparency.

As such, MiFID II represents a watershed moment for the buy-side industry. The requirements force fundamental changes to the way products are distributed, business

models are run, and to the pricing and cost structures of incumbent players (**Table 1**). And, as fee structures become explicit, high-margin products could suffer. Moreover, stricter laws and limitations are likely to limit the scope of available product offerings, while also forcing up compliance costs across the industry.

MiFID II is set to come into effect on January 3<sup>rd</sup>, 2018. The scope of the regulation will require a big effort from buy-side firms in 2017 to become compliant in time. Looking ahead, firms that have seen MiFID II as a catalyst to fundamentally reshape their business models to match a new reality are likely to thrive, while those taking their time to comply could face a slow demise.

Table  
1

## The main implication of MiFID II

Areas impacted	Main implications
<b>Products</b>	<ul style="list-style-type: none"> <li>• As fees become explicit, high-margin products are likely to suffer.</li> <li>• Stricter requirements for suitability and appropriateness are likely to limit the product offering and force a great alignment of the product and customer profiles.</li> </ul>
<b>Distribution</b>	<ul style="list-style-type: none"> <li>• More scrutiny is required by providers as to how and by whom their products are distributed and how they communicate with distributors and end investors.</li> <li>• Distributors will need to charge clients an explicit advisory fee or increase brokerage fees to compensate the loss of revenues due to a ban on retrocessions.</li> <li>• The new fee structure could lead to falling number of distributors while platforms are likely to grow further.</li> <li>• Smaller players may find distribution more challenging.</li> <li>• Technology will open up new distribution and advice models.</li> </ul>
<b>Operating models</b>	<ul style="list-style-type: none"> <li>• Ban on retrocession will require operational change and force new distribution models.</li> <li>• Asset managers may start to establish a direct channel to the end customers, which will disintermediate distributors.</li> </ul>
<b>Pricing and costs</b>	<ul style="list-style-type: none"> <li>• Investment firms will have to provide clients with detailed ex ante and ex post information related to the costs and associated charges of providing investment services.</li> <li>• Increased disclosure requirements will likely increase costs, while making high-margin products less attractive.</li> <li>• MiFID II requires that firms pay research up-front, with the amount being independent of the volume of transactions. This could increase pressure on margins.</li> </ul>
<b>Profitability</b>	<ul style="list-style-type: none"> <li>• The higher costs of distribution and compliance are likely to exert pressure of margins.</li> <li>• Profitability could also suffer due to tightened regulation on high-margin products (e.g. derivatives).</li> </ul>

# Consolidation ahead: fasten your seatbelts

# 5

## Active management industry is ripe for a new wave of consolidation

Active asset managers are being squeezed on all sides. Cheaper passive funds are taking a growing slice of the cake, while the sharp rise in regulatory costs is particularly painful for smaller firms that have to spread them over less revenue. Competition is increasingly fierce, which favors a winner-take-all scenario. For example, in 2016, low-cost product providers like Vanguard, Blackrock and State Street attracted over two-thirds of the net assets collected globally<sup>4</sup>. These significant and growing advantages in scale, especially with respect to the production of lowcost products, means that industry consolidation is all but inevitable.

The need for scale has already unleashed a wave of consolidation in the industry. In fact, asset management M&A deal values averaged USD 536.4 million in 2016, more than twice as high as the USD 240.9 million average reported

in 2015<sup>5</sup> (Chart 8). Recent examples support the idea of a wave of consolidations: from Hendersen's tie-up with Janus last October to Amundi's USD 4.1 billion purchase of Pioneer in December to Standard Life's GBP 3.8 billion acquisition of Aberdeen in March this year<sup>6</sup>. And as fee pressure and compliance costs continue to rise, the case for consolidation gets even stronger.

Looking ahead, the gap between leading and lagging asset management firms is set to rise, which should force the acquisition of smaller firms. This process is set to be driven by three factors: first, firms decide to go for a low-margin, high volume strategy, seeking to acquire new assets; second, firms decide to pursue alpha strategies and buy new technological capabilities; and third, firms bet on a shifting business model, aiming to build platform scale rather than product expertise.

4. Trevor Hunnicutt, February 2017, BlackRock CEO Fink sees wave of M&A in asset management industry, <http://www.reuters.com/article/us-blackrock-results-ceo-idUSKBN17L2IY>

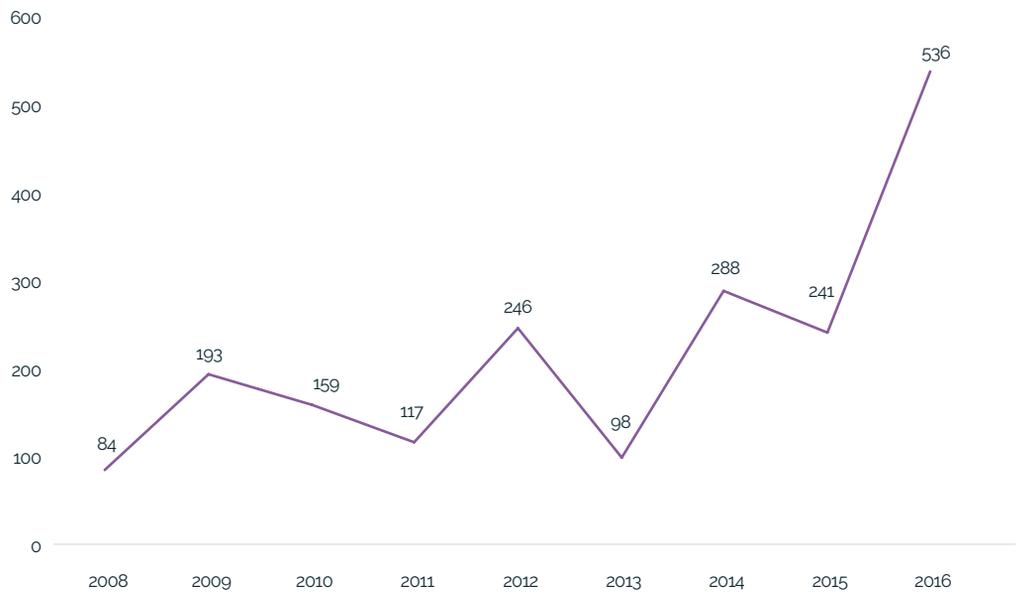
5. Casey Quirk, 2017, Skill through scale? The role of M&A in a consolidating industry, <http://www.caseyquirk.com/content/whitepapers/Skill%20Through%20Scale.pdf>

6. Data source: disclosure of the involved companies

Chart  
8

### M&A volumes are rising

Average size of the M&A transactions between asset managers, 2008-2016 (in USD million)



Source: Casey Quirk, SNL Financial and [www.pionline.com](http://www.pionline.com)

# The promise of robo-advisory services

# 6

**Robo-advisors can serve as a new distribution channel for asset managers.**

Regulatory changes accelerate the adoption of robo-advisory services. Indeed, as regulators take more steps to protect retail investors, the costs of providing customers with individualized offerings through traditional channels have risen fast. Robo-advisors could offer a compelling solution to this dilemma, since they allow incumbents to lower operational costs and extend their serves to a much broader range of clients. In fact, the technology seems to have become a necessity for many incumbents already.

Growth has been strong. Since 2012, assets invested in robo-advisors globally have increased by a factor of 20, reaching USD 200 billion in 2016. Looking ahead, this figure is set to grow to around USD 4 trillion in projected assets under management by robo-advisors in 2022 (**Chart 9**). While standalone players like Betterment set the trend, incumbent large players like Vanguard, Charles Schwab or

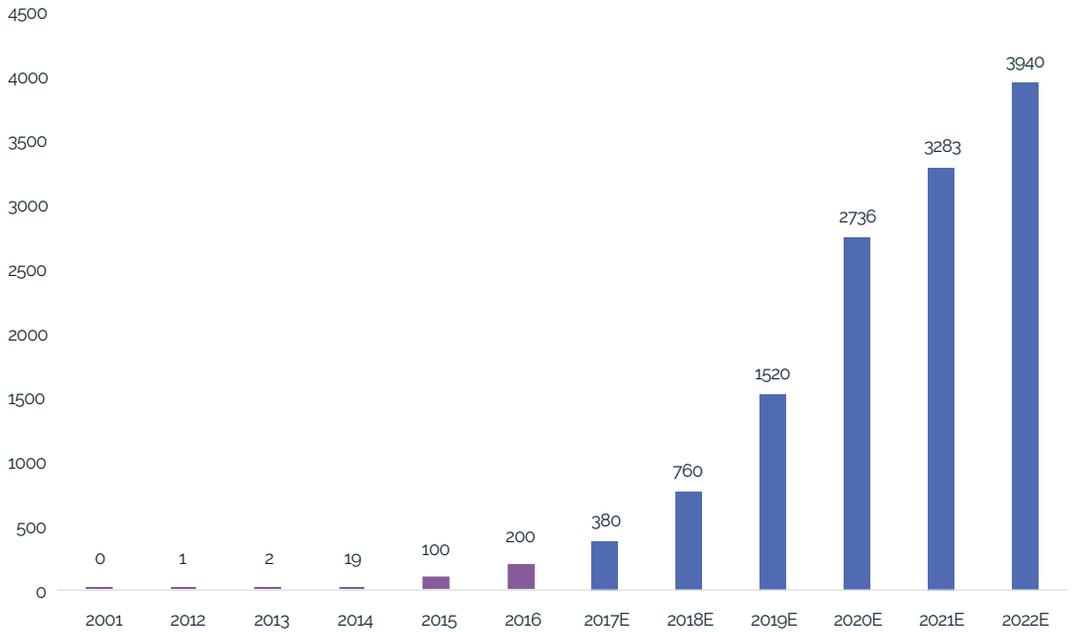
Blackrock were quick to co-opt the roboadvisory model, and today the incumbents are dominating the space (**Chart 10**).

Looking ahead, the low cost of entry has allowed incumbent asset managers to follow new entrants quickly, building up their own offerings in the process, which they typically offer their existing customer base to keep customer acquisition costs low. As such, the future of the robo-advisory trend is likely to be driven by large asset managers quickly scaling up the technology, while stand-alone robo-advisors are forced to explore new business models, such as licensing their technology to incumbents, or tying up with incumbent players.

Chart 9

### Robo-advisory platforms are set for growth

AuM of Robo-advisors, globally (USD billion)

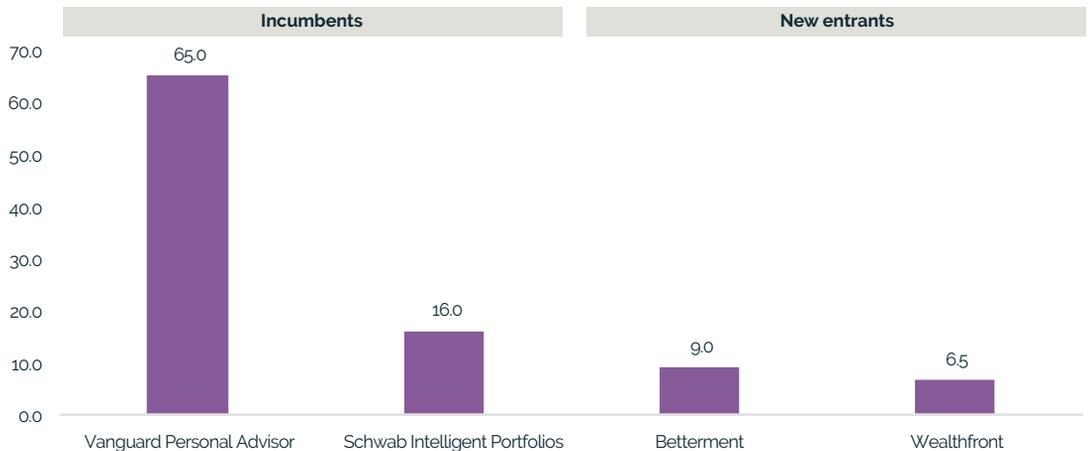


Source: The historical data (2001-2016) were based on company disclosure and information provided by Aite and Credo. The prediction (2017-2022) is based on RFS estimate.

Chart 10

### Incumbents already dominate the robo-advisory space

AuM of the world's top robo-advisors June 2017 (USD billion)



Source: Company disclosure

# Artificial Intelligence as a catalyst for innovation



**Automation and artificial intelligence are set to unlock enormous value for incumbents.**

Everyone is talking about the Artificial intelligence (AI). AI is a technology cluster that includes Machine Learning, Robotic Process Automation, and a variety of other tools used to automate or intelligently perform various activities. Such technologies will be able to augment or exceed human cognition, resulting in a change to the economics of expertise and judgement in the asset management space.

As AI becomes more capable, the technology could soon be able to replace complex human activities across the front, middle and back office. For example, Robotics are revolutionizing the entire operations value chain to aggressively manage costs, increase productivity, streamline processes and replace manual actions wherever possible (see **Table 2**). As this happens, many of the competitive

advantages that firms have derived from human-driven operational excellence will subside, increasing the incentives to outsource parts of their value chain or undertake considerable investments in new core competences in automation and AI.

Looking ahead, AI and automation are set to have a transformative impact on the operating structure of asset managers, the role of people within the organization, and the competitive landscape of incumbents in the system. In order to reach their full potential, established players need to overcome hurdles like siloed knowledge repositories, governance gaps arising from the use of technology, outdated skill-profile of their workforce, and the technology-enabled transformation of the business model.

**Table 2** Robotics can boost productivity

Data handling	Digital enablement	Data transfer
<ul style="list-style-type: none"> <li>• Back-office operations</li> <li>• Account setup and settlement</li> <li>• Margin/collateral processing</li> <li>• Corporate actions</li> <li>• Liquidity compliance/management reporting</li> <li>• Tax compliance reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Client onboarding</li> <li>• Client profile enrichment</li> <li>• Risk reporting</li> <li>• Settlement status monitoring and reporting</li> <li>• Aggregating daily NAV reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Moving client data from acquired firms</li> <li>• Importing customer portfolios</li> <li>• Migrating data from legacy system</li> <li>• Streaming the addition of new investment products</li> <li>• Consolidating and customizing research</li> </ul>

# Blockchain and beyond



**There is more to blockchain technology than simply bitcoin.**

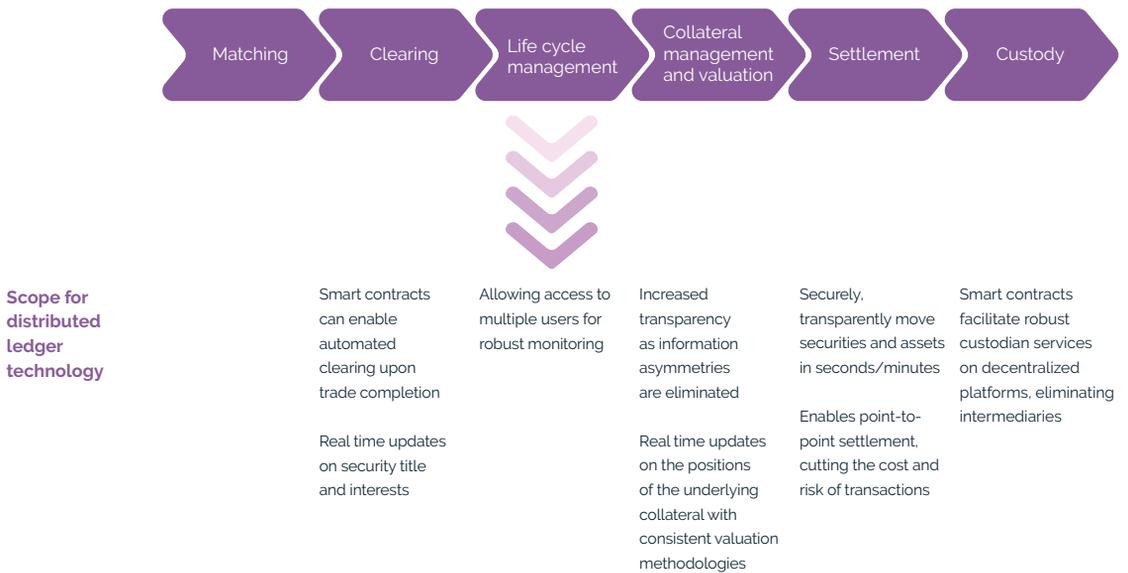
The blockchain technology has grown beyond its roots in bitcoin. For asset management firms, the most exciting aspect of blockchain is that it makes it possible to create an immutable digital ledger of transactions, agreements and contracts without the need for a central authority. More specifically, the blockchain technology is set to revolutionize two key parts of the asset management value chain: the post-trade settlement process and trading of private company shares.

Currently, the post-trade process takes about two days to complete. It typically involves a lot of steps with a lot of intermediaries, all of which keep their own records. This takes time and is expensive. Blockchain technology could consolidate the centralized ledgers, and by placing smart

contracts on top of the decentralized distributed ledger, the process can be made quicker and cheaper (see **Figure 2**). One company specializing in direct settlement is [t0.com](http://t0.com).

A second area in which blockchain innovations are affecting the asset management industry is in tradability of private shares. The blockchain technology does this with better transparency, lower costs, and greater efficiency. One of the most advanced applications on that front is offered by Linq, which is a distributed ledger product created by Nasdaq. Looking ahead, as a more efficient, cheaper private market becomes more attractive to list shares, there may be fewer incentives for an initial public offering.

**Figure 2** A revolution in the making  
**Post-trade life cycle security settlement with blockchain**



**Source:** This figure is adapted from Robeco's white paper Distributed ledger technology for the financial industry<sup>7</sup>, figure 11 on page 17.

<sup>7</sup> Robeco, November 2016, Distributed ledger technology for the financial industry.

# The rise of purpose-driven investments



**It's not only about optimizing risk adjusted returns.**

Values matter. In the context of serious global challenges, from the risks of climate change to the rise of populism, many investors feel increasingly urged to align their asset allocation with their personal values. This investor trend is being accelerated by the realization that investors need not necessarily sacrifice potential returns in order to align their investments with their values.

In fact, a study published by UBS<sup>8</sup> suggests that stock indices that integrate environmental, social and governance (ESG) considerations perform no better and no worse than traditional approaches across markets and business cycles. Moreover, one long-term study published by Harvard researchers in 2013 even suggests that a good performance on ESG issues is even positively related to an outperformance of security prices. The growing visibility of such results is empowering more investors to activate their values.

This trend is also evident in the rapid growth in signatories to the United Nations-sponsored Principles of Responsible Investment (PRI). PRI signatories commit to "incorporate ESG issues into their decision-making and ownership practices and so better align their objectives with those of society at large." Today, over 1,700 investment firms have become signatories, representing over USD 68 trillion in assets<sup>9</sup>, which is nearly 10 times the amount registered in 2006 (see **Chart 11**). This strong growth suggests that purpose-driven investments are increasingly entering the mainstream.

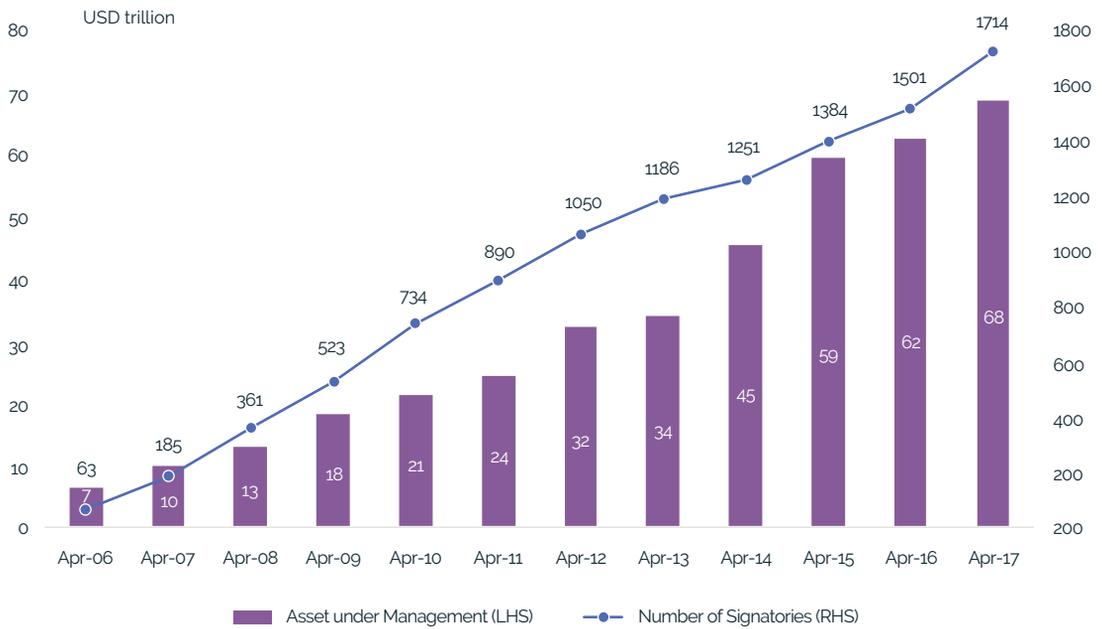
8. UBS, March 2015, Adding value(s) to investing, <https://www.ubs.com/content/dam/static/wm/CIO/others/ubs-sustainable-investing-2015.pdf>

9. UNPRI (Principles for Responsible Investment, Signatory Directory, <https://www.unpri.org/directory/>

Chart 11

### The rise of purpose-driven investment

The number of UNPRI signatories exceeds 1700 and the signatory assets hit USD 68 trillion



Source: UN Principle of Responsible Investment.



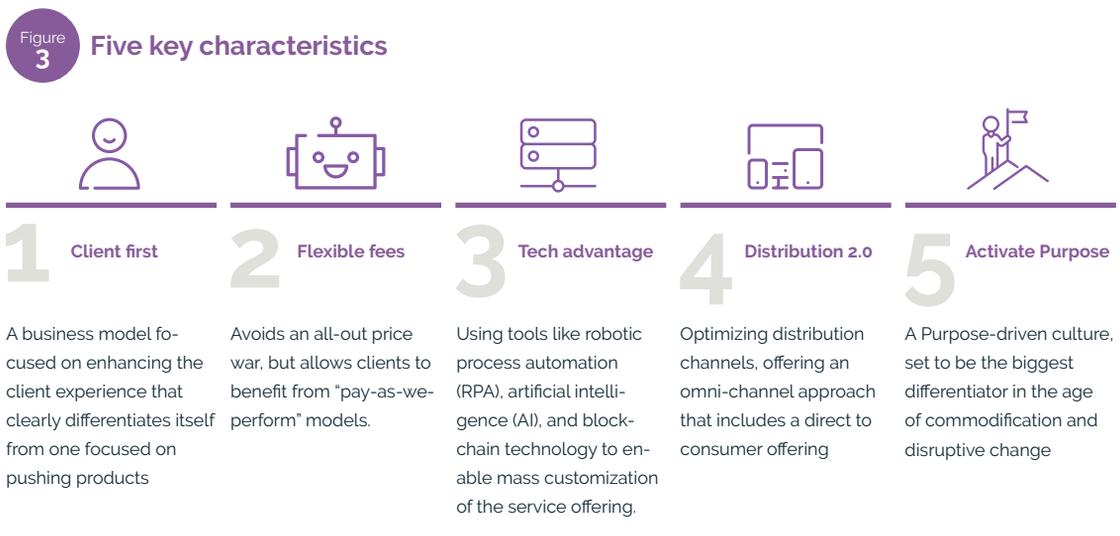
# Conclusion



# Conclusion

These 9 trends suggest that the threat of disruption in the asset management industry is imminent. In short, the ongoing industrywide automation and externalization of middle and back offices, along with the integration of robo-advisory offerings are commoditizing large parts of the asset management value chain. This makes scale key to thriving in this new environment. This quest for scale is likely to see a wave of disruptive acquisitions and strategic alliances with tech companies shaking up the market in the coming years.

Looking ahead, the asset management firms set to thrive in this dynamic environment are those with five key characteristics (See **figure 3**)



Source: RFS.

So, although risks are rising, companies that are able to build scale and implement the five points mentioned above are likely to be the winners in an uncertain future.

# Authors



**PROF. DR. ERNST MOHR**

**Professor of Economics, Institute for Customer Insight, University of St. Gallen**

Now at the Institute for Customer Insight, ICI-HSG, Ernst Mohr held various positions at the University of St. Gallen over the past 20 years, including three terms as rector of the university. Earlier he worked as a research director in the Kiel Institute of World Economics. Ernst received his Ph.D. from the London School of Economics and the *Venia legendi* from the University of Konstanz. His research covers a broad area, including international sovereign debt (1980s), international environmental cooperation and emission trading (1990s), and, today, taste economics. His most recent books are *Ökonomie mit Geschmack* and *Punkökonomie*.



**ROBERT RUTTMANN**

**Founder of Redesigning Financial Services, Institute for Customer Insight, University of St. Gallen**

Robert Ruttmann serves as the Head of Customer Insight on Financial Services at Institute for Customer Insight, University of St. Gallen, and is the founder of the research consortium "Redesigning Financial Services". Previously, Robert spent over 10 years in the financial services industry, working in Global Research at Credit Suisse, and 4 years in the Investment Office at Julius Baer, running a team of cross-asset strategists. Robert has two master's degrees from the University of St. Gallen, one in Banking and Finance, and one in International Affairs and Governance. He received his bachelor's degree in 2002 in Economics from Bates College, US.



**LUTING YE**

**Researcher at Redesigning Financial Services, Institute for Customer Insight, University of St. Gallen**

Luting Ye serves as the researcher and project manager for Redesigning Financial Services at Institute for Customer Insight, University of St. Gallen. She has multiple years of experience in banking and consulting services. Luting holds a bachelor's degree in Economics and Business Administration from Tsinghua University in China and a master's degree in Banking and Finance from University of Zurich.



**ANNA ROSENKRANZ**

**Research Fellow at Redesigning Financial Services, Institute for Customer Insight, University of St. Gallen**

Anna Rosenkranz serves as a research fellow for Redesigning Financial Services at the Institute for Customer Insight, University of St. Gallen. She has studied Business Administration at the University of St. Gallen and is currently pursuing her master's degree in Business Innovation with a focus on design thinking, business analytics and digital transformation. Before returning to university, she worked in both banking and insurance.



**ZANIYAR SHARIFI**

**Research Fellow at Redesigning Financial Services, Institute for Customer Insight, University of St. Gallen**

Zani is a research fellow at Redesigning Financial Services at the Institute for Customer Insight, University of St. Gallen. Prior to joining RFS, Zani has worked in consulting focusing on the financial services industry, where he assisted various firms on digital transformation and change management projects. He holds a Bachelor's degree in Business Administration and Economics from the University of Zurich and is currently pursuing a Master's degree in Banking and Finance at the University of St. Gallen.

On behalf of our RFS team we would like to acknowledge and thank Mike Gaylor and Julien Roueche for their great input, feedback and support for this publication.

[www.redesigning-financial-services.com](http://www.redesigning-financial-services.com)

2017 Zurich