Asset & Wealth Management Revolution

Pressure on profitability

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Contents

Executive Summary	3
1. Landscape	5
2. Four foundations for a future-fit operating model	13
Conclusion	23
Appendix	24
Contacts	25

Executive Summary

The asset and wealth management (AWM) industry's revolution is well under way. Assets under management (AuM) are increasing, as are costs and revenues. But even though costs have gone up, they have not risen as quickly as revenues for multiple reasons, including economies of scale and the slow adoption of new technologies. However, as investor and regulator pressures build and companies invest in infrastructure and talent, costs are likely to begin creeping up.

Against this backdrop, asset and wealth managers are experiencing significant pressure on profitability in certain regions of the world, with other regions expected to feel the impact in the years ahead. Managers are also dealing with unparalleled challenges and developing opportunities presented by intense fee pressure, product innovation, the continuing realignment of existing distribution channels, and the development of new ones. This paper outlines our predictions for management and performance fees from now until 2025 and identifies how managers should react.

Consistently high-performing markets and managers, new wealth from emerging markets, and positive net flows have driven the increase in AuM, which has, in turn, helped fuel revenue growth. However, firms haven't been able to consistently boost profits. Although AuM is set to grow through 2025, pressure on profitability will intensify, too. Managers who haven't yet made drastic changes to their operating models will need to do so in order to win, or even to survive.

According to the analysis we performed on the annual reports of 64 asset managers covering more than US\$40tn in AuM, the overall ratio of revenues to AuM declined by 9.81% between 2012 and 2017. At the same time, the average ratio of costs to AuM decreased by 15.36%, largely as volumeper-unit costs decreased because of growing AuM. This has resulted in an increase of 15.91% in average operating margins. However, it's important to note that not all managers have experienced this rate of increase. The gains have been limited to certain large managers and a broader number of niche managers. This is proof that in the coming years, only those that truly embrace a transformation agenda and create value for investors will be successful.

We estimate that fees are likely to continue declining through 2025. This trend will be influenced by the continued rise of passives and newer low-fee products like smart beta, increased investor and regulatory scrutiny of the value for

money that managers provide, and new fee models in the active space that focus on performance.

In line with the trends we identified in our recent paper Asset & Wealth Management Revolution: Embracing Exponential Change ("Embracing Exponential Change"), we outline here four foundations on which managers can build a target operating model to protect or even improve profitability:

- 1. Articulating value for money: Investors are looking to the AWM industry to provide value for their money. The constant introduction of new regulations amid competitive developments in the market will push managers to be even more efficient and to lower pricing. Outcome-based fee structures have also begun to transform the active landscape. Passive players have begun to feel the sustained pressure of low-margin products and move into new areas, such as smart beta. Many are also expanding into alternatives, providing the barbell investment exposures a lot of investors now seek. Fees for alternatives have been more resilient, but market pressure is leading to more innovation, as seen with outcome-based fees. Managers need to focus on articulating their value proposition.
- 2. Strategic positioning what's the plan? Regulatory and compliance burdens are driving up costs at the same time that investor and regulatory scrutiny is forcing fees lower. Managers need to ensure that investment products and related services are continuously updated to align with investors' wants and needs, which forces firms to refocus on strategic positioning. Managers must decide whether they'll operate as scale or niche players. Either choice means changing certain things about the business - by determining the product range, target markets and distribution channels - and striving for operational excellence. Many firms will struggle in the coming low-fee environment, and those without a clear strategic positioning plan will be more likely to fail.

3. Transform through technology – or be eliminated:

Advances such as artificial intelligence, machine learning, data harvesting and processing, and robotic process automation have begun to drive the quantum leap we spoke of in Embracing Exponential Change. There is potential for these technologies to create efficiencies and cut costs, particularly in the front office and in sales and service. Managers that have yet to double down on technologies and analytics that enhance the investment process and the distribution function will fall behind.

4. AWM - fight the battle for talent: Firms need techsavvy talent in a broadening array of positions, and younger workers increasingly seek companies that reflect their values, challenge them, and offer both work and life opportunities. The AWM industry will need to fundamentally change its culture to entice new talent to join and help upskill current talent. Also, managers will need to replace siloed working groups with integrated, multiskilled teams. These changes will come with costs but also will produce value in the long run.



AWM revolution: four transforming trends

In Embracing Exponential Change, we identified four trends that are revolutionising the AWM industry. We believe managers must understand, analyse and act on these interlinked trends.

1. Buyers' market

As low-cost products continue to gain market share and large players keep outdistancing the majority of the industry with innovative products, technological capability and geographic reach, firms need to be creative and disciplined. They can develop products that fill market voids, as long as their other capabilities are, at a minimum, competitive.

2. Digital technologies: Do or die

The AWM industry is a digital laggard. Firms should tap technology to create a single state-of-the-art platform to help them from front to back. Companies with siloed teams, limited automated advice capabilities and an insufficient understanding of the broadening role of technology will fall behind.

3. Funding the future

The AWM industry continues to play a vital role in filling financing gaps. Managers are becoming more involved in various new, and in some instances more available, asset classes, including peer-to-peer lending, trade finance and infrastructure financing. As a decline in defined benefit plans drives growth in defined contribution plans, the pursuit of alternative products is creating significant market demand.

4. Outcomes matter

Actives, passives, smart beta and alternatives are becoming building blocks for multi-asset, outcome-driven strategies. Large firms are creating multi-asset strategies, while small and midsized firms are acting as suppliers of the building blocks. The multifaceted nature of this changing marketplace creates opportunities for firms of all sizes and investment styles - as long as the focus is on delivering consistent, superior investment returns.

Landscape

The amount of assets under management (AuM) has increased faster than revenues, and managers have been feeling sustained pressure on their fees. Passives are dominating the price war with actives, but active managers are striking back by charging less and creating new fee models.

Price competition exists in every mature industry, and others have long made use of tactics like early-bird discounts, volume discounts, loyalty discounts and reduced pricing on certain products to facilitate cross-selling of others. The asset and wealth management (AWM) industry is beginning to catch up. As pricing concerns become a reality, a renewed focus on investment performance will become the key selling point. At the same time, technology in the form of automated advice and client service will become a necessity. In our view, as this occurs, the industry will undergo significant consolidation in certain developed markets, with up to 20% of the firms currently in existence either being acquired or eliminated.

As detailed in our recent paper Asset & Wealth Management Revolution: Embracing Exponential Change ("Embracing Exponential Change"), we expect AuM, current conditions prevailing, to increase to US\$145.4tn by 2025. But mounting fee pressure (see Figure 1), a shrinking number of distribution channels and a focus on investment performance will continue to disrupt business models. Challenges lie ahead, but there are also extraordinary opportunities for talented, focused strategic managers to thrive.

More than 1.21% 15% 1.01-1.2% Management fee 0.71-1% 24% In 2017, 40% of 0.51-0.7% funds were paid 17% by investors below and including the weighted average management fee of 0.31-0.5% 0.54%. 22% Moreover, 18% of funds were paid 0.3% or less of 0.3% or less 18% management fees. % of investors

Figure 1: Distribution analysis of management fees: active mutual funds, 2012 vs. 2017

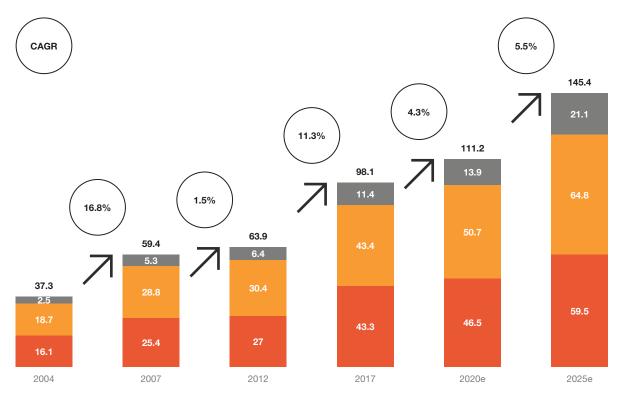
Source: PwC Global AWM Research Centre, based on Lipper and Morningstar

2012 2017

Traditional fund fees to fall by close to 20%

The year 2017 set another record for the industry. Global AuM reached US\$98.1tn, an increase of 53.7% from 2012 (see Figure 2). However, the overall revenue pool grew by only 38.5% in the same period, indicating the decoupling of AuM growth from revenue growth. We anticipate that revenues per AuM for traditional long-only managers are set to fall from 0.40% in 2017 to 0.31% by 2025.





■ Mutual funds ■ Mandates ■ Alternatives

Note: Numbers may not sum due to rounding.

Source: PwC Global AWM Research Centre analysis; past data based on Lipper, Investment Company Institute, European Fund and Asset Management Association, City UK, Hedge Fund Research and Preqin

This decrease in revenue to AuM will result from declining mutual fund fees. Mutual funds' average asset-weighted global management fees will decline by almost 20% by 2025, reaching 0.36% globally (see Figure 3). We estimate that the fee drop will be steepest before 2021 but then will flatten as investors and managers align on interests and value for money. Investors' search for diversification and increased yields will sustain the popularity of alternatives, but we

estimate that average management fees will also decline – between 13.1% and 16.4%, depending on the asset class, according to the PwC Global AWM Research Centre.

While many managers have needed to enhance their target operating model to keep their current margins, focusing even more on cost-effective operations, including producing alpha and managing risk, not all have done so.

Figure 3: Evolution of global mutual fund management fees by region, 2012 to 2025 in %

	2012	2013	2014	2015	2016	2017	2025	%12–17	%17–25
Active + Passive	0.52	0.51	0.49	0.47	0.45	0.44	0.36	-14.3%	-19.4%
Active	0.59	0.58	0.57	0.55	0.54	0.54	0.44	-8.6%	-19.3%
US	0.48	0.45	0.45	0.44	0.43	0.43	0.38	-9.5%	-13.5%
Europe	0.82	0.85	0.82	0.80	0.78	0.78	0.58	-4.9%	-26.0%
Asia-Pacific	0.88	0.90	0.78	0.63	0.60	0.58	0.43	-34.6%	-24.6%
Rest of World	0.83	0.84	0.82	0.79	0.78	0.72	0.62	-12.8%	-14.5%
Passive (MFs + ETFs)	0.20	0.19	0.18	0.17	0.16	0.15	0.12	-25.7%	-20.7%
US	0.18	0.17	0.16	0.16	0.14	0.13	0.11	-26.4%	-16.9%
Europe	0.27	0.26	0.25	0.24	0.23	0.23	0.15	-13.2%	-34.9%
Asia-Pacific	0.55	0.52	0.56	0.56	0.52	0.45	0.30	-17.8%	-32.1%
Rest of World	0.33	0.31	0.31	0.29	0.30	0.32	0.25	-3.6%	-22.1%

Note: Management fees are measured as an end-of-year, AuM-weighted average. These figures include both retail and institutional share classes of mutual funds and ETFs. Percentage changes may not correspond due to decimal approximation.

Source: PwC Global AWM Research Centre analysis; past data based on Lipper and Morningstar

Active mutual fund fees in Europe and Asia to drop most

Active players' management fees will decline by 19.3%, reaching 0.44% in 2025. However, the pace will differ vastly across regions. The drop will be slowest in the US - where fees are already at the lowest levels globally - and fastest in Europe, with prices for active mutual funds expected to fall by 26.0% between 2017 and 2025. This steep decline is anticipated as the Markets in Financial Instruments Directive II (MiFID II) becomes more entrenched, investor scrutiny grows, and the shift to low-fee products continues. We've already seen the effect of regulation on prices in the UK, where the introduction of the Retail Distribution Review (RDR) caused active management fees to fall by 25% between 2012 and 2017.

It is important that investors understand headline fee rates and where this fee is earned. New transparency has revealed that a significant proportion of current management fees is paid to intermediaries that have a direct relationship with end clients. This is particularly prevalent in Europe and Asia. The introduction of MiFID II and the move towards more direct-toclient channels will probably cause fees for intermediaries to decline.

In the US, high cost structure and inadequate technology, along with shifting product preferences, are confronting the traditional broker model. Independent brokers with low-cost operating models, open-architecture investment platforms and up-to-date technology are seeing strong growth, as are registered investment advisers that are technologically enabled and more focused on model portfolios than on single products.

We believe Asia-Pacific will also see a steep fee drop, with average asset-weighted management fees decreasing by 24.6% between 2017 and 2025, to reach 0.43%. Asia-Pacific is dominated by price-sensitive institutional investors and high-net-worth individuals, whose demand for more from their asset managers at lower cost will drive this decline. Lower prices are also one of the leading drivers of the consolidation that the Asia-Pacific market is experiencing. Additionally, the prevalence of low-fee products such as money market funds and exchange-traded funds (ETFs) in retail-driven markets, such as China and Japan, is driving fees lower.



Passive fees: race to the bottom

Passive funds continue to see strong inflows, buoyed by record equity market performance. Institutional investors are surging to passives, in part because these products offer transparency and low fees. In recent years, North American and Western European retail investors have begun to increase allocation to the passive market, particularly in the rapidly growing area of defined contribution. We anticipate this trend will continue around the globe. Rising demand for passives has intensified competition among all players, including active, alternative and traditional long-only.

Amid intense competition and minimal differentiation capabilities, we believe that by 2025 management fees on all passive asset classes will decline by 20% or more from their already low level. Our forecasts show that between 2017 and 2025, average global asset-weighted passive fees will drop by 20.7%, to reach 0.12% (see Figure 4). Given low margins in passives, scale is key and large players will find it far easier to operate profitably. Price remains the key differentiating factor among traditional passive products.

Figure 4: Evolution of global mutual fund management fees by asset class, 2012 to 2025 in %

	2012	2013	2014	2015	2016	2017	2025	%12–17	%17–25
Active	0.59	0.58	0.57	0.55	0.54	0.54	0.44	-8.6%	-19.3%
Equity	0.78	0.76	0.73	0.72	0.71	0.70	0.55	-9.8%	-21.1%
Bond	0.52	0.52	0.50	0.48	0.47	0.47	0.41	-9.3%	-12.7%
Multi-assets	0.80	0.79	0.76	0.75	0.73	0.74	0.54	-8.0%	-26.2%
Money market	0.20	0.19	0.19	0.20	0.19	0.18	0.17	-6.2%	-7.5%
Passive (MFs + ETFs)	0.20	0.19	0.18	0.17	0.16	0.15	0.12	-25.7%	-20.7%
Equity	0.21	0.19	0.19	0.18	0.16	0.15	0.12	-27.0%	-19.8%
Bond	0.17	0.17	0.16	0.16	0.15	0.14	0.11	-19.8%	-25.0%
Multi-assets	0.26	0.26	0.24	0.22	0.21	0.19	0.15	-26.9%	-21.1%
Money market	0.12	0.11	0.10	0.09	0.09	0.09	0.07	-25.8%	-22.4%

Note: Management fees are measured as an end-of-year, AuM-weighted average. These figures include both retail and institutional share classes of mutual funds and ETFs. Percentage changes may not correspond due to decimal approximation.

Source: PwC Global AWM Research Centre analysis; past data based on Lipper and Morningstar

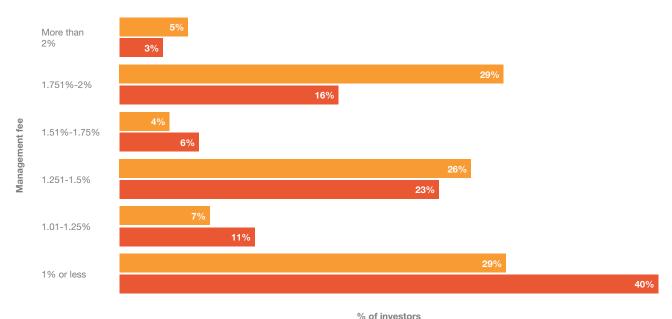
The passive 'race to zero' has long been a topic of discussion in the AWM industry. But the finish line has never been closer. One mega-manager's recent launch of two index-tracking funds with zero fees shocked the industry. Some public firms' shares fell within hours of the announcement, even though this wasn't the first time that passive managers have dropped fees to zero. Leaders of the pack have previously used the strategy to attract assets and scare away competition. We believe that this development will reshape the entire passive landscape, as more competitors will need to follow suit or risk losing investors.

Other large passive asset managers have already started to take action: some have slashed prices multiple times this year, and others launched ETF platforms with no transaction fees. But it's unlikely we'll see all passive funds move to zero. Instead, managers may use zero fees on select funds to cross-sell other alpha-focused products and ancillary services. We have already seen more recent entrants into the passive industry focus on smart beta or active strategies in an ETF wrapper to differentiate their offering and protect fees.

Alternatives: move to outcome-based fees

Global alternatives AuM grew 67.3% between 2012 and 2017 and is set to reach US\$21.1tn by 2025 because of continued institutional investor interest and increasing retail investor interest in this segment. The often-talked-about alternatives fee model of 2/20 has become more elusive since the global financial crisis ten years ago. Within hedge funds, for example, 40% of all funds set up in 2017 had management fees of 1% or less, and more than half of funds launched in 2017 had average management fees below 1.36% (see Figure 5). Although averages may be deceiving because asset classes often have different fee rates, including lower fees for so-called founders' shares, we foresee average hedge fund management fees falling 15% by 2025, to 1.16% (see Figure 6). For stronger, consistent performers that have pedigree, fees may not fall.

Figure 5: Hedge fund management fees distribution, 2012 and 2017

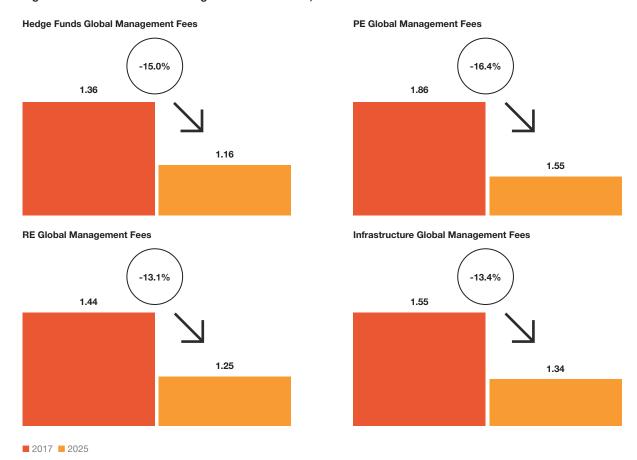


2012 2017

Note: Management fees distribution by inception year.

Source: PwC Global AWM Research Centre analysis based on Hedge Fund Research

Figure 6: Global alternative management fees decline, 2017 to 2025



Note: Management fees are measured as an end-of-year, AuM simple average. Source: PwC Global AWM Research Centre analysis; past data based on Preqin and Hedge Fund Research

The same trend can be observed in real estate funds, where more than 75% of funds launched in 2018 had management fees of 1.5% or less. Average management fees for all real estate funds were at 1.44% in 2017. We forecast that these management fees will slide a further 13.1% by 2025, to 1.25%. Private equity (PE) funds have been very resilient. Average fees stood at 1.86% in 2017, with 68% of funds launched at 2% or higher. In 2018, 59% of all PE funds launched stood at 2% or above. However, an in-depth analysis tells a different story. Large PE funds charge about 1.7%, because scale allows them to be more competitive, and small ones charge 2%. This is in line with the latest MJ Hudson analysis, which showed that although only 19% of funds in the 2018 sample were charging a management fee of 1.5%, the aggregate amount of capital targeted by these funds represented 59% of the capital targeted by the entire sample. We expect average fees on PE funds to fall 16.4% by 2025, to 1.55%.

The increased availability of alternative assets is also going to play a significant role in the decline in fees. Fee pressure will grow as active and passive mega-managers realise that AuM growth doesn't necessarily translate into strong revenue growth and increased investor demand. Because of this

realisation, managers will continue to turn to higher-margin products such as alternatives, increasing competitiveness in this space. And as the segment becomes more competitive, these mega-managers could try to leverage their scale and cost advantage by offering innovative and/or lower fees. This will result in the decline of overall fees in alternatives.

The alternatives segment has also been trying new models since the financial crisis. We are seeing a clear move towards outcome-based fees, such as higher performance fees for alpha-generating funds. Early-bird investors are also getting lower fees, and investors in multiple funds at the same company or with a large commitment often enjoy a volume discount. PE funds are offering a step-down in management fees after the initial investment period, and we're also observing negotiations between limited partners and general partners affecting transaction fees. Clawback and similar clauses have remained a standard within alternatives.

Performance fees differ across asset classes. For hedge funds, they have, on average, drifted down from 20% closer to 15% for new funds being launched. The 20% performance fee or carried interest is still the norm in PE and real estate. We believe we'll see lower management and performance

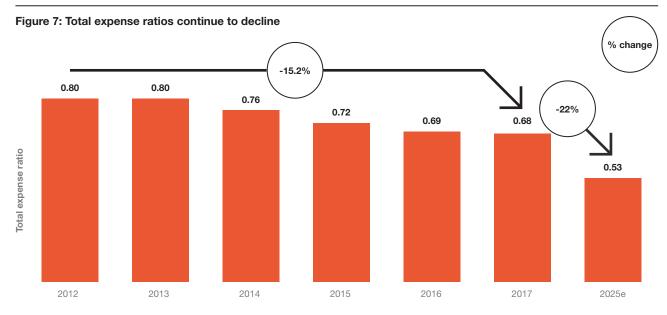


fees or carried interest paid only for generation of alpha. Investors continue to appreciate both the funds' alignment with their wants and needs and the crystallisation of carried interest on a distribution/cash basis, which has helped protect these fee levels.

Alternative asset managers still have to rethink their business models, adjusting their products, services and operations to ensure they not only survive, but thrive, as the industry changes. If alternative managers continue to provide alpha and differentiate themselves, we believe they'll be able to keep fees steady, but will still be subject to business model pressures that require significant change.

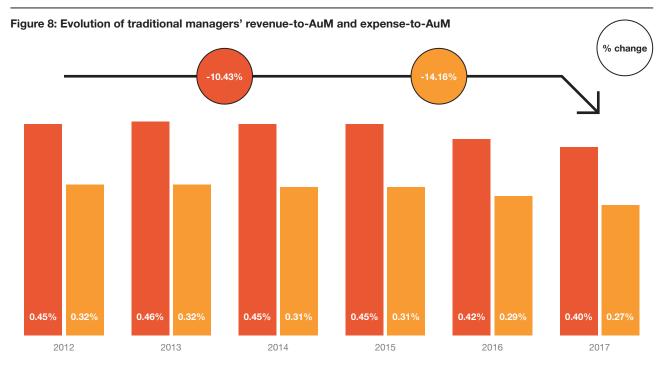
Total expense ratios will continue to fall faster than management fees

Since the global financial crisis, regulators continue to introduce rules demanding that managers adhere to their fiduciary duty and provide value-for-money services to their clients. These regulations, along with industry pressures and increased transparency, have resulted in global total expense ratios (TERs)1 falling by 15.2% over the past five years - a faster decline than for management fees in the same period. We anticipate that as management fees continue their downward march and investors continue to move towards low-cost products, TERs will fall by more than 22%, to reach 0.53% by 2025 (see Figure 7).



Note: Total expense ratio (TER) is measured as an end-of-year, AuM-weighted average. These figures include both retail and institutional share classes of mutual funds and ETFs. Percentage changes may not correspond due to decimal approximation. Source: PwC Global AWM Research Centre analysis; past data based on Lipper

¹ Note: We define the total expense ratio (TER) as the annual fee that investors are charged by funds or ETFs. This includes expenses such as 12b-1 fees, administrative fees, management fees, operating costs and all other asset-based costs that the fund incurs. Brokerage costs and sales charges (initial or deferred) are not included.



■ Revenue/AuM ■ Operational expense/AuM

Source: PwC Global AWM Research Centre analysis based on annual reports of 64 asset managers accounting for more than US\$40tn of global AuM

Traditional revenue-to-AuM ratio to decline by 22.4% as assets soar

Pressure on management fees has led to a decline in traditional managers' ratio of revenue to AuM, and we project it will fall further, to reach 0.31% by 2025 – a decrease of 22.4% from 2017.

Despite this steep drop, the revenue pool of the traditional asset management industry will keep growing until 2025, reaching US\$385.4bn, as traditional AuM soars to US\$124.3tn.

Although the ratio of revenue to AuM already fell by 10.4% between 2012 and 2017, traditional managers did, on average, successfully decrease the ratio of costs to AuM by 14.2% in the same period (see Figure 8), resulting in their operating margins increasing by 10.5%.²

Of the 64 managers whose annual reports we analysed, large and small traditional asset managers saw their operating margins rise by 10.5% and 15.6%, respectively. But midsized

asset managers could only increase their margins by 3.5% between 2012 and 2017.³ The ratio of revenue to AuM declined most dramatically among midsized managers, dropping 23.6%, followed by large managers, at 10.1%. However, it's important to note that managers with superior investment products fared much better, allowing them to make improvements in firm operations.

Managers have been able to compensate for the disparity between AuM growth and the decrease in contribution margin per AuM by streamlining operations and becoming more efficient. Those managers with scale have used their size to ensure they'll continue to grow and keep their costs low. However, the question that looms is this: What will happen if there is a downturn?

Managers should use the current period of growth to ensure they are prepared for a decrease in both AuM and revenues. The following section outlines how PwC believes managers can ensure they are reaching investors' objectives while remaining agile and keeping costs low.

² Operating margins were calculated based on a sample of 64 asset managers, accounting for more than US\$40tn of global AuM.

³ We define large managers as those with more than US\$500bn in assets under management, midsized as those with US\$250bn to US\$500bn, and small as those with less than US\$250bn.

Four foundations for a future-fit operating model

Articulating value for money

As calls intensify for the AWM industry to provide value for money, managers have no place to hide, and so they have begun to align themselves with investors' interests. While some of this is accomplished by tying fees to performance, managers must work to understand more comprehensively what investors truly want. Outcome-based solutions will become more important as managers strive to provide holistic investment solutions to both retail and institutional investors and to offer investment advice that helps clients achieve their long-term goals.

The AWM industry needs to lower costs and manage fee pressure to deliver more for less. It is remarkable that standard fee models have survived for so long, without evolving or changing significantly over time. As transparency increases so, too, does investors' knowledge. By 2025, investors will know where every dollar of management fees has been spent and what value it is providing to them.

Fees are, however, only one part of the equation. Investors and regulators are increasingly aligned on the fact that the AWM industry should provide value for money. MiFID II in Europe and RDR in the UK are evidence of this trend, with RDR now bolstered by the Value for Money regulatory framework, under which, beginning in 2019, managers might need to complete an annual report on the wider value their firms provide. The US, despite shelving the Department of Labor's fiduciary rule, also has made great strides in this space. The Securities and Exchange Commission has introduced consultation on Regulation Best Interest, a rule that would require broker-dealers and registered investment advisers to act in the best interest of retail clients, for both retirement and other investments. In the coming years, as these types of regulations become more prevalent, it'll be imperative that managers articulate their value proposition. We believe that managers that fail to align themselves with investors' interests will become easy prey for acquisitions or simply be left behind.

leading AWM players to focus on the use of emerging truly provide value to their clients, PwC's Customer depth analytics to help drive customer acquisition and

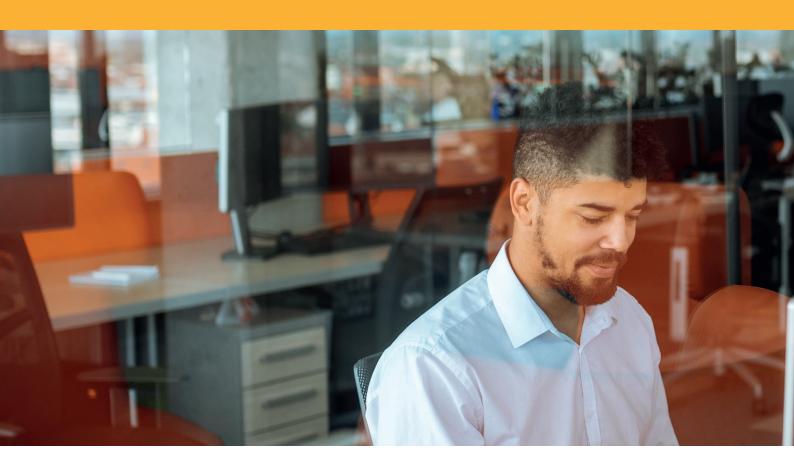
Pricing will reflect investor demand

As we've pointed out, in response to price pressure, market leaders have already introduced either fulcrum or performance-linked fee structures - though performancebased fees account for a minor portion of the industry – and we expect an uptick in these sorts of models. We've also noted that firms will look for more innovative ways to manage their margins and cross-sell, particularly in the US and Europe, and that price pressure in Asia-Pacific is coming mainly from large institutional investors, which are looking to significantly reduce base management fees. In Asia, ETF penetration is significantly less, as distributors continue to be incentivised to promote mutual funds over ETFs. As such, there is less pressure there for managers to bring new pricing structures to market.

For example, Japan's Government Pension Investment Fund has introduced a new revenue scheme for managers that reduces the base fee to passive levels but removes the performance cap. At the same time, a carryover mechanism encourages the long-term performance of managers: those that underperform can expect to see a revenue cut. With one of the largest institutional investors taking the lead, we expect that many institutions in Japan will begin to consider new fee structures in the coming years.

Product innovation will prioritise outcomes

Active managers are innovating through new fee models, but passive managers, beginning to feel pressure on already low fees, will turn to smart beta and active ETFs, which provide more sophisticated strategies to achieve investors'



target outcome at lower prices than actives do. These sorts of products can also justify higher fees than plain-vanilla passive strategies. Smart beta, in particular, has become increasingly popular, with ETFGI reporting AuM skyrocketing from US\$181bn in 2012 to US\$630.4bn in 2017, a CAGR of 28.35%. Reducing risk, enhancing returns, improving diversification and reducing cost are often cited by FTSE Russell as reasons to take on smart beta.

Active ETFs are looking good to investors. With lower fees than traditional mutual funds and the benefit of active management, active ETFs are able to gain benchmark, beating returns that can be adapted to market conditions.

If the fee war should further intensify and spill over to higher-fee passive products, players will need to focus on other differentiating factors, such as brand and added-value services, to be able to demand premium fees. At the same time, we believe traditional active products will continue to decline in popularity while concentrated actives, including solution-based products incorporating alternatives, will dominate.

Money isn't everything

Although funds with lower fees will continue to draw investors, price is not always the most important thing. We've already predicted that managers that are able to provide consistently above-average returns might be able to charge higher fees. We've also pointed out that those offering a streamlined and technologically enabled client experience will be on the track to success, because they'll provide new value to their clients.

It's also becoming increasingly critical to consider the role the industry should play in society, and this discussion is changing the AWM landscape. Investors are letting managers know they care about diversity, environmental responsibility,

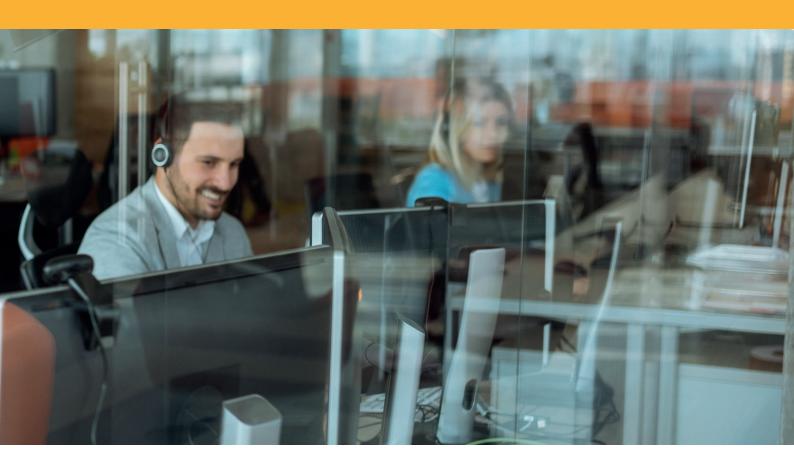
"To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society."

Larry Fink, BlackRock CEO

governance and inclusion. Managers must take all of these themes to heart, prioritising these issues within their businesses, aligning on strategy, and setting achievable targets. Firms should promote initiatives both internally and externally. Managers must turn the socially responsible spotlight on themselves so they don't appear to be at odds with their own investment guidelines, especially on the institutional side, where many managers that do not meet requirements will struggle to take on new clients.

As managers seek to include environmental, social and governance (ESG) factors in their investment mandates, short-term costs are likely to increase due to the need to hire new talent, incorporate new data sets, and embed new policies and compliance and risk processes to monitor ESG criteria.

But it's essential that managers respond to what investors want and raise the moral purpose of the AWM industry by asking themselves what their purpose is, other than generating returns. As BlackRock CEO Larry Fink pointed out in his annual letter to CEOs this year, "To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society."



Strategic positioning — what's the plan?

Costs are increasing due to regulatory and reporting demands, while at the same time, pressures are forcing managers to prepare their future position. They'll need to determine whether they'll be niche or scale, which products are underperforming and should be reconsidered, and how they contribute to society overall.

In order to be fit for the future and able to adapt operations in a low revenue-to-AuM environment, we believe managers must focus on their current strategic position and plan for a future in which the majority of costs are variable and therefore easier to manage. It's also important to evaluate how to scale through sourcing strategies.

Planning a future position

A segment's specific needs will determine how managers within that segment position themselves for the future. We believe managers will need to expand their analytical capabilities by embracing new technologies and hiring tech-savvy team members. Managers must ensure they are more agile in reacting to market changes, such as regulatory issues, and develop their trading models to support increasingly complex strategies.

Niche vs. scale: Large players are getting larger, increasing their already substantial AuM and expanding operations. At the same time, niche managers are shoring up their expertise and client base. In the coming years, we believe midsized firms that don't have a specific niche will find it difficult to operate efficiently and will need to either move to a niche or gain scale to survive. Scale can be achieved through building, buying or borrowing. Firms can build with

and Technology (BXT) philosophy. BXT unites a on developing a single purpose and appropriate boosting their productivity by 20% and increasing

ambitious growth plans via new markets and products, lift-outs and targeted talent hires, new distribution channels and vertical integrations. Buying involves acquisitions or mergers - vertical and horizontal - and borrowing is increasingly attractive because joint ventures or alliances mean sharing the costs of expansion. To move into a niche, midsized managers will need to be better or brave, either by outperforming competitors or by specialising in particular areas, markets, channels and products. Midsized firms in the active space need to differentiate themselves or risk failing.

Smaller firms that wish to operate on a niche scale should look to develop specific insights in specific areas, outsource noncore functions and lower costs. Having a lean operating model will help these firms be more proactive in meeting clients' needs. Being highly specialised might lead to higher risk, though, and vulnerability to sudden market changes.

Large players, on the other hand, are more easily able to provide an integrated offering by leveraging their scale. As multi-asset, outcome-based strategies become more popular in the AWM industry, every large player will need to become an investment solution provider more than a manufacturer of products across all asset classes.

Product rationalisation: As distribution shelf space shrinks and the remainder comes at a premium, managers will need to close underperforming and costly funds. While we do not expect the net number of Undertakings for the Collective Investment in Transferable Securities, including ETFs, to decrease globally, there won't be many new funds added either, as intense rationalisation takes place. In developed markets, the number of mutual funds is expected to decline by up to 25%. In the US, for example, the large number of small mutual funds is expected to decrease dramatically due to poor performance, a lack of profitability or shrinking product platforms. However, the number of ETFs is expected to grow rapidly in the US and Europe, and more slowly in Asia, making it important for managers to examine and streamline their product range. New funds, including smart beta, active ETFs and quantitative funds, will emerge.

M&A: Although organic growth will still be best for most of the largest managers, we will see more M&A activities in the coming years as managers strive to enhance their scale, acquire expertise in new asset classes, and gain access to new distribution channels and markets (see Figure 9). In the past, most M&A transactions in the AWM space have led to insufficient integration (e.g., by keeping multi-boutique arrangements or separate operating silos) and therefore have not achieved the estimated scale benefits. Combining front-to-back investment operations, distribution functions and data delivery mechanisms requires careful planning, resource investments and focused execution. Opportunity exists for niche players seeking to be acquired or for middletier managers to merge to achieve scale and consolidate their position. We expect cross-border mergers to grow in popularity too, as companies search for global propositions, especially Asian managers looking to establish a global foothold. We have seen M&A activity pick up since 2017 and we believe it will accelerate with a wave of consolidations. Active managers that operate independently and fail to provide a clear value proposition to their clients or occupy a niche will be easy targets - or casualties. Market leaders have already started to position themselves by acquiring vertically, horizontally or both, while building out their product and geographic reach.

37.9 40.9 32.3 22.5 38.6 30 2017 2012 2013 2014 2015 2016

Figure 9: Global investment management M&A deal value (US\$bn)

Source: PwC Global AWM Research Centre analysis based on Dealogic



Tax: a tough nut to crack

AWM industry tax services have been under particular looking to mitigate tax and compliance risks are therefore considering outsourcing tax functions to new and services. As managers search for a deeper understanding provide are invaluable.

Given the global nature of many managers' operations. we recommend a regular tax review to assure that the facts and law on the organisation's tax positions have not

Leveraging a future position through 'right-sourcing'

Managers should evaluate their sourcing strategies - what functions are core and should be kept in-house (insourcing), what functions should be outsourced, and whether there are opportunities to co-source. When thinking about how to leverage outsourcing, managers should consider three areas: human capital, technology and scale.

In terms of human capital, managers should evaluate if certain competencies should be outsourced. A shortage of experts with the right skills can make recruiting difficult. This is especially true for the types of positions that are needed now in the AWM industry, such as data scientists and engineers. Firms might want to consider outsourcing to technology companies, which are more competitive and appealing for such skilled workers. A perfect example of this is the tax function, which can be run much more efficiently in an outsourced model by specialists with global reach.

To determine whether to outsource technology, managers must consider how much it will cost to replace legacy technologies with new ones and stay on the forefront of technological development. There are many players offering cutting-edge technology for each competency, but evaluating which provider is the right one requires resources.

Managers often struggle to scale their business while simplifying their operations and data environment because they depend on multiple acquired or bespoke systems for various asset classes. The reconciliation functions and multiple data transformations that result use a lot of resources. An outsourcing arrangement can help achieve scale and simplification and change management considerations in a sustainable and profitable way.

Managers must look to their value chain, determining when services currently performed internally should be outsourced, to achieve best practice and state-of-the-art capabilities. Firms can make use of these outsourced providers to reduce their liability, cost and risk exposure.

Transform through technology – or be eliminated

Digital technology investments are helping managers innovate and serve investors by transforming many business functions. As managers look to integrate their front, middle and back offices onto one platform, the lines between these functions will blur. Data is becoming a core competency and strategy for managers, and those who are able to convert it into actionable insights will lead the industry.

As we've said, investing in digital technologies is critical to cutting costs and improving operations, and therefore margins. Managers with legacy systems need to become state-of-the-art and focus on implementing resources such as artificial intelligence (AI) and machine learning in the front office. Uncompetitive firms that haven't invested in technology and have survived despite poor investment performance will find themselves orphaned with few, if any, strategic options.

Using technology to boost business - case study

PwC conducted an assessment to identify front-to-back intelligent automation opportunities in multiple business functions for one global asset manager that was facing the fee pressures, costs and market conditions we've described in this report (see Figure 10).

Figure 10: Technology case study Capacity released (estimate) **Bots in production** Opportunity assessment ~50,000 **Business functions** working hours per year New way of working Targeted capacity released: Machine learning and optical 140 FTEs by 2020 character recognition Prepared business to be ready for new ways of working resulting from · Leveraged PwC's Intelligent Achieved front-to-back automation. investment in innovation, disruptive Automation assessment framework with machine learning and optical technologies and associated workforce to identify opportunity for automation character recognition to ride on the upskilling across the firm benefit of robotic process automation 30 full-time employees released in Conducted proof of concepts within the first 6 to 9 months of the program the portfolio services and compliance function Developed machine learning assessment framework and made progress with core delivery Source: PwC

Figure 11: Technology and operations

Client processing	Technology's contribution
1. Know Your Customer/anti-money laundering	Facial recognition Blockchain technology Machine learning software
2. Transfer agency/order processing/ administrative	Blockchain software Use of automatic software to directly add the order in the database
3. Client engagement	 Software to track clients' contacts and optimise the content you serve to them Digital engagement analyses Client relationship management and digital e-marketing
Investment product processing	Technology's contribution
4. Portfolio management	Machine learning and Big Data management Advanced data analytics Natural language processing
5. Risk management	Advanced data analytics Advanced behavioural analytics
6. Operational and administration	Accelerated the trading process Optimised software and hardware to control and better manage the flow of client orders
General data management processing	Technology's contribution
7. Compliance/legal	Natural language processing Blockchain technology
8. Data management	More efficient management of large volumes of data Interesting insights and forecasts

Source: PwC Global AWM Research Centre

Decreasing costs through data and technology

A future-fit operating model will require increased technological integration across tasks to reduce the silo effect, and will demand optimal use of data, analytics and the cloud. Simplifying and optimising in this way (see Figure 11) will also reduce costs and enable employees to be redistributed into roles that add higher value for clients.

However, digitising carries its own expenses. Short-term costs will increase as managers upskill existing talent, employ new tech-savvy workers, and purchase and implement tools. Although returns will surely outweigh the initial costs, it is crucial that managers prepare for the financial outlay of adapting their business. Scale will be a huge benefit, because larger managers can leverage their size to mitigate the financial effect of digitisation.

Many managers have already begun the process of a core platform replacement - making use of large service providers or technology firms to supply a uniform platform. We believe it's most likely that one or more large service providers will provide an integrated platform that spans the value chain, asset classes and geographic differences. It's also possible that managers will build or buy core technological capabilities and keep them in-house. Otherwise, the multiplatform, cloud-based world might prevail, with managers outsourcing operations to best-of-breed open-architecture

service providers whose plug-and-play platforms make it easy to connect application programming interfaces to other systems. The digital innovations these platforms bring, specifically in more cost-intensive areas such as the front office, have been successful in improving companies' effectiveness and efficiency. In discussions with managers around the globe, we've seen that those who've initiated the process of redesigning their target operating model have mostly focused on integrating a single technology platform. These managers are optimising their business from front to back and are ready to face the new reality of lower revenues and sustained fee pressure.

New investment strategies, such as factor investing, smart beta and quantitative investing, are also becoming more pronounced as innovations allow managers to enhance their product ranges and allow players to either move to higher-fee products or decrease the cost of research and investment. Data analytics systems have enhanced research, increased its quality and minimised costs related to data management. PwC estimates that as much as 45% of the tasks for global work activities can be automated through the use of robotic process automation – cutting down the time spent on systematic tasks, decreasing the number of errors, and reducing head count.



Taking technology to new heights

The world is getting more complex and data-rich, making analysis a more daunting task for managers. Those who make use of new technologies will be able to implement more advanced investment strategies and bolster risk analysis and decision making. Managers using such advanced strategies will be able to make better investment decisions and provide higher returns to their investors, thus ensuring higher fees.

Al, while still in its infancy, already has been used in some aspects of the front office and has the potential to truly upend the industry in the coming years. According to Opimas, the use of Al could eliminate as many as 90,000 jobs within the AWM industry and increase the cost-income ratio of financial institutions by 28%. As analysts look for actionable insights in massive data sets, and portfolio managers try to better understand market movements, Al will be key in the front office. Real-time optimisation of sales, marketing, client interaction, predictive modelling and near-instant processing of data will enable the AWM industry to rise to the next level, making AI a technology that managers should invest in at an accelerated clip.

Al and machine learning are already being used to mine data for insights, with humans helping to make these insights actionable. As machines become more advanced, they will be able to accomplish what a team of research analysts could. This does not herald the end for human investment analysts, but instead forecasts a powerful collaboration between analysts and data. There isn't enough data available yet in the AWM industry to power fully informed, nonhuman Al, but as analysts build and fine-tune these systems, less human intervention will be necessary.

Al's footprint across the industry is too clear to ignore. Natural language processing, speech and text recognition programmes, machine learning and neural networks are just some examples of applications already used by a variety of investment firms. Al will have a significant effect across the entire value chain, cutting overhead costs and possibly boosting revenues. Ultimately Al will change, and already is changing, the internal workings of the AWM industry.

Technology, however, needs to be implemented with purpose. Being truly client-centric means that managers should deploy capital in an intelligent manner, searching for technologies that will bring the most important improvements to their business operations and to their clients' experiences. By using technology to provide value-added services to clients, players can differentiate themselves from competitors and justify premium fees. Leading firms, from small to mega, have proven nimble. By leveraging data, analytics and various forms of AI, they are improving processes and streamlining capabilities across their firms.

AWM – fight the battle for talent

Without good talent, you can't transform or build for the future. New technologies are changing the skills that workers need, the way jobs and tasks are completed, and the very definition of talent. Managers are competing with each other, startups and established technology companies to attract talent and build the workforce of the future.



Building an AWM business with new talent requires a different way of hiring. Additionally, as a fresh generation of investors brings new expectations into the market, technical knowledge and financial experience will change. We have already seen this, as ESG investing has become more prominent and managers scramble to attract the best talent. New manager profiles are needed too, as alternatives, quantitative investing and smart beta increasingly become part of the investment landscape. And as firms turn to new technologies to mine data, people who are able to work with both the technologies and the analytics will become more important.

In 2025, we expect that humans will remain the dominant workforce, but technology will play a much stronger enhancement role than it does today, allowing the workforce to focus energy on core duties. According to the World Economic Forum's Future of Jobs 2018 report, 56% of financial services companies surveyed are expecting to reduce their workforce due to automation. Given the advanced level of education in the industry, these displaced individuals could be redeployed to higher-value roles. As the competition for talent intensifies, redeployment or retraining of existing talent become viable options.

The AWM industry has long been considered traditional and hierarchical. As managers look to attract, train and develop talent, they will need to change both the public perception of the industry and their way of doing business. Managers need to think about themselves as technology companies. and not as in opposition to technology, to build a culture that will resonate with and attract the future workforce. This is increasingly important as managers are now missing out on a new wave of digital talent being lured by technology

companies. New generations are no longer simply looking for a paycheck; they are searching for a company that reflects their values, rewards hard workers - not just vocal ones - and promotes a more even work-life balance.

Managers need to be thinking about upskilling current talent too. Transforming a business can be deeply unsettling for its people, and firms need to ensure they take their workforce on the journey with them. Business areas likely to be most affected include the following:

- · Traditional analyst and research roles, which will be transformed by technology and data science
- · Client relationship and engagement, due to increased digitisation of distribution channels
- Back- and middle-office functions, some of which can be automated for efficiency

According to PwC's CEO survey, 29% of AWM CEOs are implementing continuous learning and development programmes, in part to attract and develop digital talent. This is lower than the global average of 42%. The AWM industry is behind the global average in all other aspects of workforce planning too, except for "implementing new, flexible ways of working" and "outsourcing to external providers." This could be cause for concern, because it shows the industry's lack of willingness to change and adapt. One example of a learning programme is PwC's digital fitness tool, which allows firms to assess their employees' capabilities and analyse and leverage the results to build a comprehensive digital talent strategy, with ongoing training to improve their digital acumen.

Building a diverse and inclusive workplace

The AWM industry is behind the curve, and this needs to be acknowledged. In the United States, according to the New York Times and Morningstar, less than 10% of mutual fund and ETF portfolio managers are women. Globally, this number is slightly higher, standing at approximately 20%, but it hasn't changed since 2008. The gender pay gap is high, according to several studies. Something must be done to build a better future. Many initiatives already have been introduced, but managers need to increase their efforts. By doing so, companies can boost their brand and marketability, which raises investors' perception of value.

Managers that wish to have the right workforce for the future will need to be brutally honest about talent. They should consider a complete redesign of the organisational model, including a reevaluation of roles that could become redundant, ensuring that they are staffing correctly for the challenges that lie ahead.

Winning managers are creating diverse, inclusive, flexible and exciting workplaces, offering internship initiatives and careers with international programmes and digital upskilling. Laggards in this space risk an analog death spiral as they fall behind leaders, financial technology firms and technology companies that will attract the top talent.



task performance and productivity gives managers critical increase their value.

Conclusion

According to our analysis of the annual reports of 64 managers, operating margins have returned to the levels they were at before the global financial crisis and assets continue to show strong growth. Despite this, fees are falling quickly, and although managers have lowered costs, the real challenge will be protecting or improving profitability in the future. The AWM industry will need to continue pushing efficiencies while balancing costs as it adapts to changes ushering in a new era. The future will look very different, but just as bright.

Managers will need to focus on the four key themes we have outlined in this paper:

1. Articulating value for money

Managers must react to the industry's changing price structures. New fee models are being developed, and asset owners are searching for a firm that will provide superior investment returns with excellent client service at competitive prices. Specifically, the ability to deliver an innovative, technologically enabled and seamless client experience will continue to create value for both investors and managers. In addition, new individual investors, along with traditional institutional investors, are increasingly being drawn to managers that support social-cause investing. ESG has now migrated into a broader set of social, economic and cultural priorities.

2. Strategic positioning - what's the plan?

Every manager needs to determine its strategic operating position for the future. Niche players should have highconviction strategies and focus on their specialisations. Scale players should leverage their ability to be a complete solution provider and focus on outcome-oriented products. Managers in the middle need to decide which direction to head in and adopt a stance that sets them firmly on that course.

3. Transform through technology – or be eliminated

For a firm to be efficient and competitive, it needs to adopt an integrated platform that manages all activities investments, distribution, valuation, reporting, operations and regulatory compliance. Winning firms will gain better insights by using AI, data and analytics. Those that are able to make those insights actionable will be ahead of the curve.

4. AWM – fight the battle for talent

Despite pressures on profitability, investment in top talent is essential to ensure the ability to transform and drive success into the future. As technology becomes more central to the AWM industry, talent needs are changing. Firms are competing with large technology companies and startups for skilled workers. Data science is becoming a more crucial skill, and teams that can successfully develop and integrate with cloud-based technologies are fundamental for the future. And managers that build a diverse and inclusive workspace will reap the rewards.

Appendix

Forecasting methodology

We gathered historical data from well-established, industry-standard sources, including Morningstar, Lipper, Hedge Fund Research and Preqin, along with PwC's proprietary resources. We collected global insights across multiple regions (US, Europe, Asia-Pacific and the rest of the world) and across the major asset classes (equity, bonds, money market, multi-assets and alternatives).

We forecasted the fees for more than 100 series using multiple econometric approaches. We analysed with multivariate approaches, as well as time-series forecasting. Ultimately, we proceeded with a decomposition of the time-series components (trend, seasonality and residuals) and we forecasted them up to 2025. For this purpose, multiple models were tested, from the random walk with drift to the ETS family and ARIMA models. Finally, the model that was selected due to its outperformance and flexibility was exponential smoothing - specifically, the cubic smooth spline.

Finally, we complemented the results of our model with a qualitative analysis based on discussions with PwC industry experts in order to provide an insightful depiction of the industry's future.

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