

US-Based Traditional Asset Manager Moats Continue to NarrowOngoing passive competition and a shifting balance of power with distributors continue to diminish the positioning of most firms.

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Executive Summary

When we last assessed the economic moats of the US-based traditional asset managers, we noted that the shifting balance of power with their primary distributors, as well as the prodigious growth of low-cost passive products, had narrowed, and would continue to narrow, the moats attached to most firms. Given the asset-light nature of their businesses, their high degree of operating leverage, relatively high retention rates, and somewhat oligopolistic approach to pricing, the decline continues to be more of a slow bleed, though, than a race to the bottom. This has allowed most of the managers we cover to generate decent amounts of cash flow from their most stressed businesses—primarily, active equities—if equity markets are rising, outflows are kept to a minimum, and fee and margin compression aren't that onerous.

Most of the firms in our coverage have tried to offset these pressures, primarily through acquisitions that either scale up their operations (which would ease some fee and margin compression) or by diversifying their product offerings (to reduce their exposure to the growth of low-cost passive products). Despite these efforts, most of the US-based traditional asset managers continue to struggle to differentiate themselves. It is particularly elusive to do so in a manner that would allow them to generate enough in product sales to offset their redemptions consistently and/or have more control over product pricing. This, in most cases, is being dictated by the gatekeepers of broker/dealer and retail-advised networks.

With most of our coverage, we've seen a greater-than-expected deterioration in the intangible assets that support the switching costs advantage inherent in their business models. At this point, BlackRock, with its focus on passive products, is the only wide-moat firm, with T. Rowe Price and Cohen & Steers, which are more-niche managers, being narrow. The rest of our coverage dwells in no-moat territory.

Companies Mentioned								
Name/Ticker	Economic Moat	Moat Trend	Currency	Fair Value Estimate		Uncertainty Rating	Morningstar Rating	Market Cap (Bil)
BlackRock BLK	Wide	USD	10645.7	925.00	949.20	High	***	140.3
Invesco IVZ	None	USD	1715.8	18.00	17.70	High	***	8.1
Franklin Resources BEN	None	USD	1646.6	22.00	19.90	High	***	10.6
T. Rowe Price Group TROW	Narrow	USD	1569.1	115.00	108.50	High	***	24.6
Federated Hermes FHI	None	USD	782.7	35.00	36.90	High	***	3.1
AllianceBernstein AB	None	USD	769.5	36.00	34.70	High	***	4.0
Affiliated Managers Group AMG	None	USD	701.0	184.00	181.20	High	***	5.5
Janus Henderson Group JHG	None	USD	361.4	34.00	38.90	High	***	6.4
Cohen & Steers CNS	Narrow	USD	80.7	71.00	94.30	High	**	4.9

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Key Takeaways

- ► Asset managers continue to face secular and cyclical headwinds. Increased competition for flows as investor capital migrates to low-cost index-based products, with lingering uncertainty about equity and credit market gains, an evolving baby boomer retirement phase, and ongoing pressure on fees and margins will adversely affect the US-based traditional asset managers over the next decade.
- Asset managers need four traits to be successful: a level of differentiation in their operations, a stable of cost-competitive funds, repeatable investment processes that generate consistent returns, and adaptable cultures and business models. Companies with these qualities are more likely than not to offset some secular and cyclical headwinds facing the US-based traditional asset managers.
- ▶ Differentiation can be achieved four different ways. With investment products and services expected to face a greater degree of scrutiny, active managers can differentiate their approach the following four ways: diversification by product/asset class/channel/geography; specialized expertise in a product/asset class/channel/geography; scaled-up business or product offerings; and/or vertical integration.
- ► Active funds need to be more cost competitive. We believe that by gradually lowering management fees and expense ratios, active asset managers can give their products a leg up over higher-cost offerings in the same category, as well as eventually make themselves more cost competitive with passive products, as long as investors believe they are receiving value for the fees they are being asked to pay.
- ► Investment performance must be more consistent and repeatable, as investors are less willing to pay more for products or solutions when they believe that the performance and investment outcomes do not justify the fees that asset managers are charging. The impetus is on active asset managers to improve the disparity between their investment performance and that of their benchmarks.
- Asset managers need to have adaptable cultures and business models. We tend to look more positively on firms whose cultures and strategies are designed to protect their economic moats, and that show a willingness and ability to adapt to competitive changes. We look skeptically on firms that are working to repair serious deficiencies in their operations or that have struggled to adjust to changing conditions.

Exhibit 1 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar

Coverage				Differentiation				Low Costs		Repeatable / Adaptable Processes			
Company	Ticker	Economic Moat	06/30/24 AUM (USD bil)	AUM Scale Efficiency	Product Breadth & Reach	Passive & Active Capabilities	Distribution Channel Strength	Switching Costs Strength	Fee Pricing Power	Fee Diversity & Exposure	Performance & Reputation	Culture & Stewardship	Capital Investment Efficiency
BlackRock	BLK	Wide	10,646										
Invesco	IVZ	None	1,716										
Franklin Resources	BEN	None	1,647										
T. Rowe Price	TROW	Narrow	1,569										
Federated Hermes	FHI	None	783										
AllianceBernstein	AB	None	770										
Affiliated Mgrs. Group	AMG	None	701										
Janus Henderson	JHG	None	361										
Cohen & Steers	CNS	Narrow	81										
	■ Positive ■ Neutral ■ Negative												

- ► US-based traditional asset-manager moats continue to narrow. We now have six no-moat firms: Invesco, Franklin Resources, Federated Hermes, AllianceBernstein, Affiliated Managers Group, and Janus Henderson; two narrow-moat firms: T. Rowe Price and Cohen & Steers; and one wide-moat firm: BlackRock. This ongoing downward adjustment to their moats is the result of continued deterioration in the intangible assets moat sources for many of the US-based traditional asset managers we cover.
- ► For investors in the publicly traded asset managers, it pays to stick with high-quality, moaty firms. For an industry that is so heavily tied to the vagaries of the equity and credit markets, firms that have generated consistent levels of organic AUM growth and adjusted operating profitability over various market cycles have generally been rewarded, with wide-moat-rated BlackRock and narrow-moat T. Rowe Price and Cohen & Steers standing out in our group of US-based traditional asset managers.

US-Based Traditional Asset-Manager Moats Continue to Narrow

In 2018-19, when we last did a broad assessment of the economic moats attached to the US-based traditional asset managers, we noted that the shifting balance of power had narrowed between these firms and their primary distributors—namely, broker/dealers and retail-advised networks—and would continue to narrow the moats for most of our coverage. With transparency around fees and performance increasing, on top of a push on the part of regulators for more fiduciary responsibility in retail-advised relationships, we saw the bar being raised for the traditional asset managers we cover. Even worse, the industry continued to face a massive disruptor to their active style of management—specifically, in active US Equity funds. This came in the form of index-based products that offer marketlike performance at meaningfully lower price points than active funds, which, to take share, have taken full advantage of the poor relative investment performance of higher-priced traditional active strategies.

As such, we had expected the industry to face ongoing fee and margin compression, as active asset managers had to cope with the spread between the management fees charged on their funds and those attached to index-based products. This would manifest itself in greater pressure from the gatekeepers of broker/dealer and retail-advised networks to continually lower the prices on their funds. Meanwhile, they'd also have to spend more heavily to improve and maintain investment performance, as well as enhance and maintain their product distribution. All of this would manifest itself in lower returns on invested capital for the group. What we had not envisioned was a covid pandemic and a subsequent equity and credit market dislocation in 2022-23 in response to rapidly rising interest rates. This hastened the decline in some firms we had kept at narrow the last time around, even though they were demonstrating characteristics of no-moat firms. It also brought one firm down from wide-moat territory. While it is true that these events were more cyclical in nature, they laid bare weaknesses in many of the intangible assets that support these firms' switching cost advantages.

That said, their business models' asset-light nature, high degree of operating leverage, relatively high retention rates, and somewhat oligopolistic approach to pricing have stanched the decline to more of a slow bleed than a hemorrhage. This has allowed the US-based traditional asset managers we cover to continue to generate cash flows from even their most-stressed businesses—primarily active, large-cap equities—as long as equity markets are rising, outflows are kept to a minimum, and fee and margin compression aren't that onerous. Many of the traditional asset managers we cover have looked to use

this capital to offset the pressures they're facing in their core business, primarily through acquisitions. Some have focused on scaling up their operations, which can ease some of the fee and margin compression they have been experiencing, but this is only temporary relief. Others have used this capital to diversify their product offerings, aiming to reduce their exposure to the growth of low-cost passive products.

Unfortunately, most of the firms we cover continue to struggle to differentiate themselves in a manner that would allow them to generate enough in product sales to consistently offset their redemptions or have more control over their product pricing. This, in most cases, is being dictated by the gatekeepers of broker/dealer and retail-advised networks. While there are strengths in different parts of the operations of each of the traditional asset managers we cover, we ultimately had to ask ourselves if these firms were offering anything differentiated enough in their products or services to give them an edge. In particular, we were looking for aspects of their businesses that would allow them to get a better price than their peers and/or allow them to operate in areas of the market where price competition was not as much of an issue. This is including circumstances where there was either no meaningful price competition or fee compression, or where price competition and fee compression were not impactful to margins because the manager benefited from a cost advantage moat source.

Exhibit 2 Scale, Operating Profitability, and Organic AUM Growth of Morningstar's US-Based Traditional Asset-Manager Coverage — 2014-28E



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024. Bubble chart reflects the size of each asset manager's operations (with bubbles reflective of average AUM levels during the past year) as well as their current moat designations (as denoted by the colors in the legend). The X and Y axes on the chart reflect historical and projected average annual adjusted operating margins and average annual organic AUM growth, respectively, during 2014-28 for each firm.

At this point, BlackRock is the only wide-moat firm in the group of nine US-based traditional asset managers we cover. Its focus on passive products, an ancillary business in technology and investment solutions, and its greater attention to institutional investors, truly separate the firm from the group. This is best exemplified by looking at a charting of average AUM, organic AUM growth, and adjusted operating margins for our coverage. BlackRock is clearly in the upper-right quadrant, generating both above-average organic AUM growth and above-average operating margins during 2014-28 despite its much larger scale relative to its peers in our US-based traditional asset manager coverage.

While T. Rowe Price and Cohen & Steers have been less than consistent with their organic AUM growth, they're still generating better adjusted operating margins than the rest of the group, with their ROICs well above our estimates of their cost of capital. The two firms are more-niche managers—with the former focused more heavily on the retirement channel and growth equities and the latter primarily running REIT-focused funds—and, in our view, have narrow economic moats. As for the rest of our coverage, they now reside in no-moat territory, which is what we would expect from an industry in secular decline that feels the impact of cyclical changes in the markets to a greater degree than it might have in the past. In almost all the no-moat cases, we've seen a deterioration in the intangible assets that support and/or enhance the switching costs advantage inherent in the asset-manager business model.

Understanding the Moat Sources for the Asset Managers

The publicly traded US-based traditional asset managers we cover operate in an industry that has historically been conducive to the creation of economic moats. Most of these firms benefit from a business that is highly scalable and requires little in the way of capital investment, allowing them to produce high levels of profitability with returns on invested capital well above their cost of capital. We view switching costs and intangible assets as the primary moat sources for the industry. While having scale across product lines tends to provide the larger, more-established US-based traditional asset managers with an advantage over smaller firms, especially when it comes to access to distribution platforms, we've not seen much evidence of cost advantage in the industry—except, that is, with index fund and passive exchange-traded fund, or ETF, providers like BlackRock and Vanguard.

Scale does not always confer better-than-average operating profitability for participants, and the industry tends to behave as an oligopoly when it comes to pricing, with most active managers preferring to keep pricing around industry averages. Although institutional investors and the retail gatekeepers for broker/dealer and advisory networks have exerted pressure on pricing, competition based on price has been rare, aside from what we've seen in the market for index funds and ETFs, where greater amounts of scale have provided firms with a cost advantage. Ever-increasing scale has allowed passive firms such as BlackRock and Vanguard to be more price competitive without giving up too much in operating margins, which leads to more share and scale. This in turn gives these firms room to be more aggressive on price.

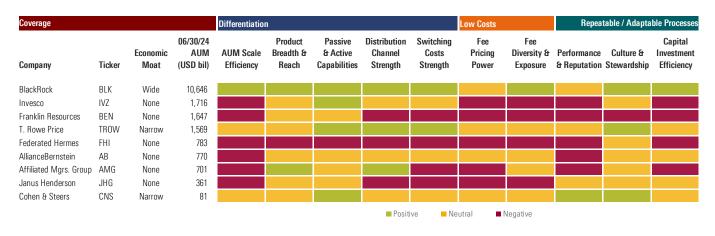
While the barriers to entry for the industry are not particularly significant, the barriers to success are extremely high. It takes time and skill to put together a long enough record of investment performance to start gathering assets, then even more time to build the scale necessary to be competitive, especially

as the gatekeepers of broker/dealer and retail-advised networks are looking to work with fewer fund providers with both scale and breath of product offerings. Competition for investor flows can be stiff and has traditionally centered on investment performance, especially in the retail channel. While compensation remains the single-largest expense for most of the US-based traditional asset managers, supplier power has been manageable, as many firms have reduced their reliance on star managers and have tied part of portfolio manager and analyst pay to portfolio and overall firm performance.

Although the switching costs for the traditional asset managers might not be explicitly large, inertia and the uncertainty of achieving better results by moving from one manager to another, as well as the potential tax consequences of selling a fund with significant gains, tend to keep investors in place. We believe the US-based traditional asset managers can improve on the switching costs advantage inherent in their businesses. They can leverage organizational attributes, such as product mix, distribution channel, and geographic reach, and intangible assets such as strong and respected brands and manager reputations from a record of generating above-average investment performance relative to peers.

From a moat source perspective, we generally refer to these organizational attributes and the more common intangibles as intangible assets that can add to or subtract from the switching costs advantage inherent in an asset manager's business model. For example, firms offering niche products with higher switching costs—such as retirement accounts, alternative funds with lockup periods, and tax-managed strategies that can allow them to hold on to assets longer—are viewed as having intangibles that separate them from peers. While depth and breadth of product mix, distribution channel concentration, geographic reach, and successful records of investment performance are all visible attributes, it tends to be harder to make a direct link to their influence on switching costs. However, it can generally be inferred that firms with above-average investment performance tend to see lower redemption rates, while companies with diversified offerings can offset flows out of one asset class, product set, or geographic region with flows into another during different market cycles.

Exhibit 3 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

For the US-based traditional asset managers, we've found the following attributes are insightful when assessing the competitive strengths and weaknesses of each firm's operations: AUM Scale Efficiency; Product Breadth & Geographic Reach; Passive & Active Capabilities; Distribution Channel Strength; Switching Costs Strength; Fee Pricing Power; Fee Diversity & Exposure; Investment Performance & Manager Reputation; Culture & Stewardship; and Capital Investment Efficiency.

We first laid out these attributes in our March 2019 Asset Manager Observer, New Era for US Asset Managers: Shifting Balance of Power with Distributors and End Clients has Narrowed Moats of Most Firms. They also inform the four traits—differentiation, low-cost funds, repeatable investment processes, and adaptable business models—we believe necessary for the traditional asset managers to have long-term success, as laid out in our December 2019 Asset Manager Observer, New Era for US Asset Managers: Four Traits That Asset Managers Must Be Diligently Focused on to Be Successful in the Long Run. We believe a focus on these attributes allows us to better determine which firms are more likely to be successful in the future, given that they provide us with insight into the traits that both our equity and manager research groups believe are necessary for asset managers to succeed in the future.

AUM Scale Efficiency

With AUM Scale Efficiency, we are basically looking at a firm's ability to handle its size, operating leverage, and profitability, giving higher marks to firms that have been able to generate above-average levels of operating profitability without too much operating leverage. All told, the more efficient an asset manager is at handling its operating leverage and profit margins, the greater chance that firm has of producing higher levels of free cash flow and more-continuous ROICs. With the business of asset management requiring little in the way of capital investment, though, the ROICs produced by individual companies can be extremely high. So, being able to discern which firms are likely not only to generate excess returns, but also can do so with relatively little variance, can be a difficult task for an industry that is so heavily tied to the vagaries of the equity and credit markets. These criteria are far more useful when assessing the width and viability of the economic moats attached to the traditional asset managers.

Overall, though, we think it is important to keep a close eye on operating leverage at these firms, given the impact that market volatility can have on revenue, profitability, and ROICs in any given year. While generally a good thing in rising markets, operating leverage works both ways, much as we saw during the 2008-09 financial crisis and the 2022-23 dislocation in the equity and credit markets, where significant declines in AUM led to even greater declines in revenue and operating profitability. As such, it pays to stick with firms that have average to above-average operating margins, a moderate amount of operating leverage, tenable ROICs (with lower standard of deviation around those returns), and healthy excess returns relative to their estimated cost of capital.

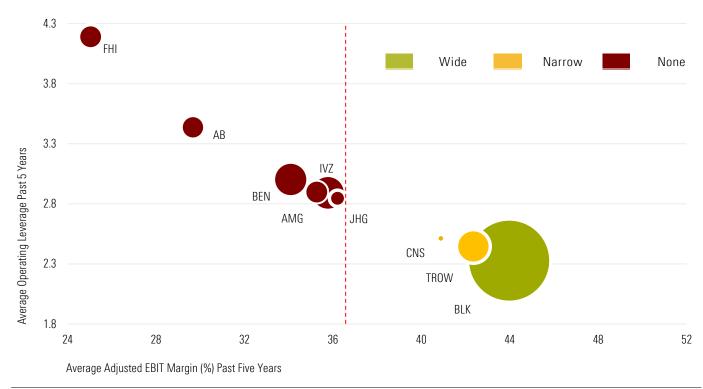


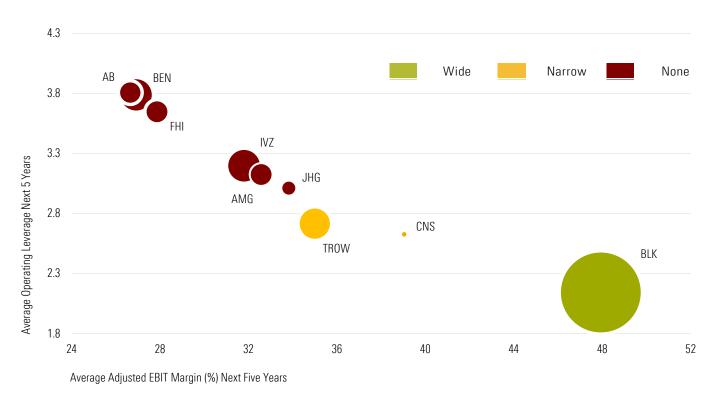
Exhibit 4 Scale, Operating Profitability, and Operating Leverage of US-Based Traditional Asset Manager Coverage — 2019-23

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024. Bubble chart reflects the size of each asset manager's operations (with bubbles reflective of average AUM levels during the past year) as well as their current moat designations (as denoted by the colors in the legend). The X and Y axes on the chart reflect average annual adjusted operating margins and average operating leverage during 2019-23. The red dotted line reflects the average annual adjusted operating margin for the group of nine traditional asset managers we cover the past five years.

BlackRock gets the highest marks in our coverage for AUM Scale Efficiency, generating above-average adjusted operating margins of 44.0% on average annually during 2019-23 compared with the group of traditional asset managers at 35.9% (and the group excluding BlackRock at 35.0%) with the least amount of operating leverage on average relative to the group. The same holds in our forward forecast, where we have the firm generating expected adjusted operating margins of 47.9% during 2024-28 are comfortably above the group average of 33.5% (30.7%) with the least amount of operating leverage.

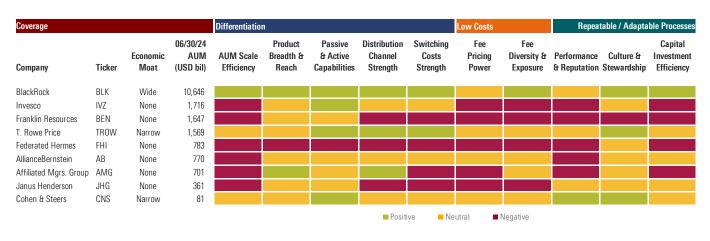
T. Rowe Price has received high marks in the past, generating above-average adjusted operating margins of 42.4% on average annually during 2019-23, with the second-lowest level of operating leverage in the group. However, more-recent events have affected our expectations. The firm is facing stiffer competition from providers of passively managed target-date funds in the retirement channel. Plus, the company decided to split its research, trading, and portfolio management platform into two entities requiring an additional set of personnel. It did this shortly before the 2022-23 dislocation in the equity and credit markets had left it with a higher degree of operating leverage, just as its AUM levels were being stressed. We see the firm being more in the same neck of the woods as Cohen & Steers, which we have rated neutral. As for the rest of our coverage, it all now holds negative ratings, as almost all of them are generating subpar levels of operating profitability with a higher degree of operating leverage. (We note that Franklin Resources, Federated Hermes, and AMG were rated neutral previously.)

 $\textbf{Exhibit 5} \ \ \text{Scale, Operating Profitability, and Operating Leverage of US-Based Traditional Asset Manager Coverage} \\ -2024-28E$



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024. Bubble chart reflects the size of each asset manager's operations (with bubbles reflective of average AUM levels during the past year) as well as their current moat designations (as denoted by the colors in the legend). The X and Y axes on the chart reflect estimated average annual adjusted operating margins and estimated average operating leverage during 2024-28. The red dotted line reflects the average annual adjusted operating margin for the group during the next five years.

Exhibit 6 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Product Breadth & Geographic Reach

Being able to offer a wide array of investment opportunities across different asset classes has tended to allow firms to hold on to assets over different market cycles, as well as being a means of differentiating themselves from their peers. With Product Breadth & Geographic Reach, we look at a combination of Asset Class/Product Diversification and Geographic Diversification for the US-based traditional asset managers we cover. For Asset Class/Product Diversification, we look at each firm's product category exposure, penalizing managers with greater amounts of exposure to US large-cap active equities and rewarding firms with a meaningful presence in unique asset classes, strategies, and geographies that are growing at a faster pace than the industry as a whole, are expected to be stickier than other assets, or can garner higher fees for longer periods and/or have little to no exposure to low-cost passive products. Given the makeup of the managed assets of the US-based traditional asset managers we cover, this process predominantly focuses on active strategies, but we do adjust for passive product offerings where we expect them to have a positive impact on overall results.

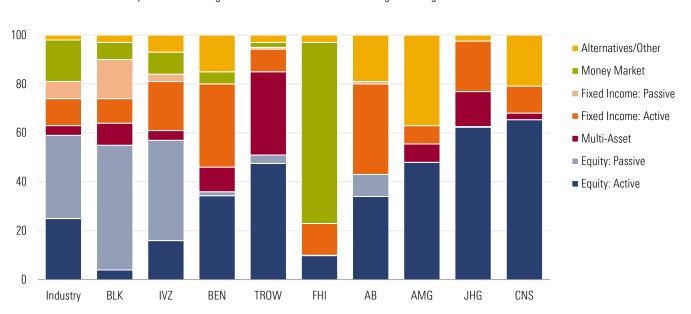


Exhibit 7 AUM Asset Class Exposure for Morningstar US-Based Traditional Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

When looking at the core asset-class exposure of the nine US-based traditional asset managers we cover, we also find it useful to assess each firm relative to the industry's weighting in these different asset classes. In particular, at the end of June 2024, we see that 47% of industrywide assets were invested in US equities, 12% were in international equities, 18% were in fixed-income products, 4% were in multi-asset offerings, 17% were in money market funds, and 2% were in alternatives/other products. Industrywide assets are defined as US ETF and open-end fund AUM, including money market funds but excluding fund of funds, tracked by Morningstar Direct and estimated at \$35.0 trillion at the end of the second quarter.

With equity funds being a bigger concern for us, given their greater exposure to low-cost passive offerings, a quick glance at the average asset class breakdown of the nine US-based traditional asset managers we cover would highlight Cohen & Steers (65% equities) and Janus Henderson (61%) as potential candidates for a negative Asset Class/Product Diversification rating given their higher equity exposure relative to the industry (59%). Meanwhile, BlackRock (55%), T. Rowe Price (52%), Invesco (52%), and AMG (48%) would potentially receive neutral ratings, and AllianceBernstein (43%), Franklin Resources (36%), and Federated Hermes (10%) would lean more toward positive.

However, first glimpses can be misleading. By digging deeper into each of the Morningstar equity categories represented in US equities, we get a much better sense of which firms might be more exposed to the growth of low-cost passive products, which have been able to gain the largest amount of share in large-cap US equities the past 15 years. Even then, we need to be careful not to read too much into these data points, as in most cases we're not getting a complete picture of the equities managed by the nine US-based traditional asset managers in our coverage, with the data provided for Morningstar Direct accounting for only around one third of each asset manager's total equity AUM on average.

100 US Small Value US Small Growth 80 US Small Blend US Mid-Cap Value 60 US Mid-Cap Growth ■ US Mid-Cap Blend 40 ■ US Large Value ■ US Large Growth 20 ■ US Large Blend 0 Industry BLK IVZ BEN **TROW** FHI AB JHG CNS **AMG**

Exhibit 8 US Equity AUM Exposure by Morningstar Category for US-Based Asset-Manager Coverage — June 2024

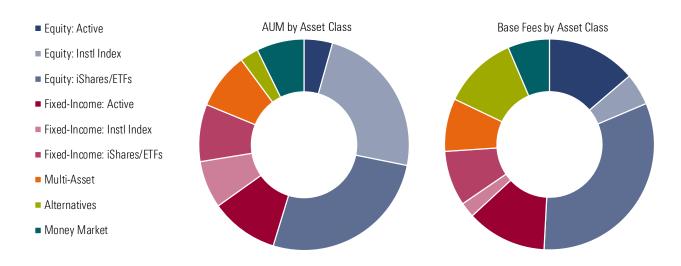
Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

While we have segments in our assessment of the organizational structures and intangibles of the US-based traditional asset managers in the Passive & Active Capabilities, as well as sections dedicated to Repeatable & Adaptable Processes, these attributes also play a role in our assessment of Asset Class/Product Diversification. For example, when looking at BlackRock, which garnered 55% (or \$5.8 trillion) of its \$10.6 trillion of AUM from equity strategies at the end of June 2024, with 76% of its US Equity AUM coming from large-cap strategies, it pays to note that more than 92% of the firm's total equity-based AUM was derived from its passive operations, composed of ETF/iShares platform (\$2.8 trillion), which are predominantly (99%-plus) passive, and its institutional equity index operations

(\$2.5 trillion). So, basically, just \$467 billion (or 8.0%) of BlackRock's total equity-based AUM was in active strategies, leaving it far less exposed to the growth of passive than other firms in our coverage that derive a large chunk of their AUM from actively managed equity funds.

That said, we still need to keep an eye on BlackRock's actively managed equity AUM because it is expected to generate 27% of the revenue the firm will earn from base management fees from its equity operations this year, with iShares and the institutional index business expected to produce 63% and 10%, respectively. The same holds for the company's fixed-income operations, which accounted for 26% (or \$2.8 trillion) of BlackRock's \$10.6 trillion of AUM at the end of June 2024. While more than 60% of the firm's fixed-income AUM was derived from its ETF/iShares operations (\$931 billion), which are predominantly passive, and its institutional bond index operations (\$772 billion), the remaining \$1.1 trillion generates much higher fees. As such, BlackRock's active bond-fund offerings are expected to generate 53% of the revenue the firm will earn base management fees from its fixed-income operations this year, with iShares and the institutional index business producing 37% and 10%, respectively.

Exhibit 9 Breakdown of BlackRock's AUM and Base Fees by Client Type — June 2024

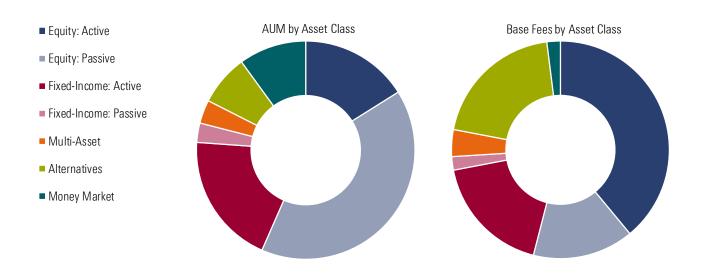


Source: Company reports, Morningstar Direct, and Morningstar equity research data and estimates. Data as of Oct. 4, 2024.

Invesco is another firm in our coverage that needs to be looked at a bit more closely, because it has the second-largest commitment to passive products in our coverage. At the end of the second quarter of 2024, we estimate that passive investments accounted for 43% of Invesco's \$1.7 trillion of total AUM, and, more important, 65% and 15% of the company's equity (estimated at \$971 billion) and fixed-income (\$385 billion) operations, respectively. That said, Invesco has also been pulling in significantly more passive ETF and unit investment trust flows than it has been flows into its actively managed funds the past several years, which has been a drag on its overall management fee realization rate, given that a large portion of the ETF/UIT offerings that are driving these flows are low to no-management fee earning

funds. While these flows can be relatively short term in nature, the low to nonexistent revenue yield on these products has a significant impact on the firm's overall net revenue yield. That's why with all the US-based traditional asset managers we look not only at AUM diversification, by asset class, geography, and distribution channel, but at the revenue that is expected to be generated by each of these asset classes, geographies, and distribution channels.

Exhibit 10 Breakdown of Invesco's AUM and Base Fees by Client Type — June 2024



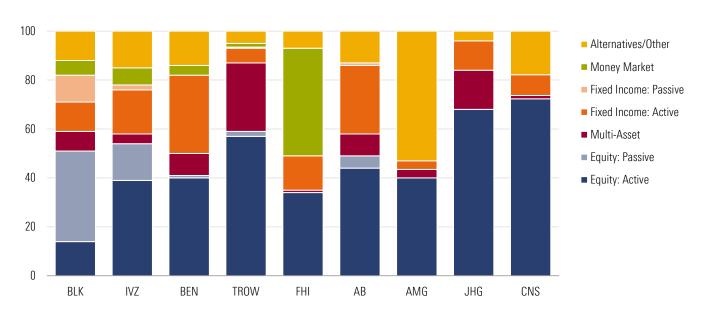
Source: Company reports, Morningstar Direct, and Morningstar equity research data and estimates. Data as of Oct. 4, 2024.

We often note that the more broadly diversified an asset manager's product offerings are by asset class, geography, and distribution channel, the more likely they are to hold on to assets during changing market conditions. So, knowing the revenue contribution for each company's exposure by asset class, geography, and distribution channel allows us to better forecast firmwide revenue and profitability. Having a breakdown of revenue exposure by asset class is the most useful to us during cyclical changes in the equity and credit markets, as it allows us to better assess the full impact of market drawdowns, like we saw during the equity and credit market dislocation in 2022-23. Unfortunately, while some traditional asset managers, like BlackRock, provide detailed information on their AUM and revenue, in most cases we are making assumptions on how much a firm derives from each asset class, geography, and distribution channel because the disclosure levels are less than adequate.

Looking at the estimated revenue contribution from each asset class for the firms we cover, we see that BlackRock is not only the most broadly diversified asset manager in the group, but also generates half its revenue from passively managed products. Invesco is a distant second, generating just under 20% of its revenue from passively managed products. AllianceBernstein, which has the third-largest commitment to passive products in our coverage (as of end-June 2024, 11% of its firmwide AUM is dedicated to passive products: 9% equity, 1% fixed-income, and 1% other investments), comes in with less than 5% of management fee revenue coming from passive products. This means that everyone else is far more

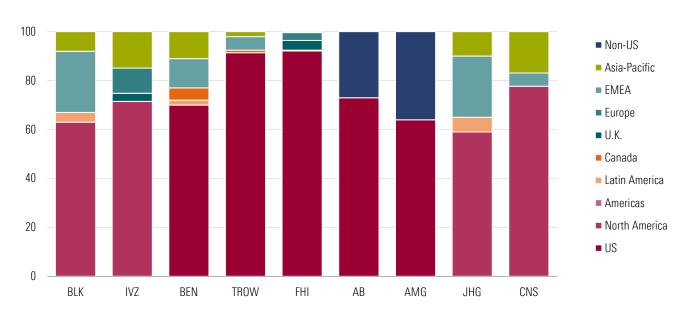
exposed to the continued growth of passive, which is stealing the sales needed to offset these firms' regular stream of redemptions and putting pressure on their fees.

Exhibit 11 Asset Class Revenue Contribution for Morningstar US-Based Asset Manager Coverage — June 2024



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 12 Geographic AUM Exposure for Morningstar US-Based Asset Manager Coverage — June 2024



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Much as with asset class diversification, Geographic Diversification provides asset managers with the ability to generate AUM and revenue from a wider array of markets and can offset AUM losses when one or more markets go out of favor. Having offices in other countries, with on-the-ground sales and/or investment research and trading desks, asset managers can offer both global perspective and local expertise to investors. On-the-ground operations can also create a slightly higher barrier to entry for the US-based traditional asset managers, given the costs and expertise that are required to not only deal with the multitude of different regulatory environments and foreign exchange risk, but the marketing of investment products to many distinct cultures around the globe. Unfortunately, only a few of the US-based traditional asset managers we cover achieve a positive rating for Geographic Diversification because of the limited amount of international client exposure we see across our coverage.

BlackRock, Janus Henderson, AMG, and AllianceBernstein have all received positive ratings, though, because each firm sources 30% or more of its AUM (and 35% or more of its revenue) from clients domiciled outside the United States (or North America). Both T. Rowe Price and Federated Hermes get negative ratings here because neither one garners more than 10% of their AUM (or revenue) from non-US-based clients. As for the rest of the group, a neutral rating seems appropriate.

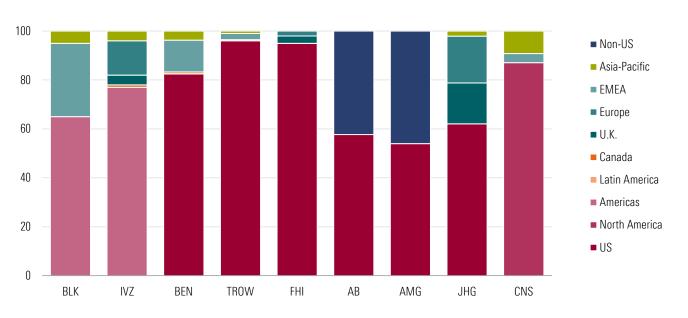


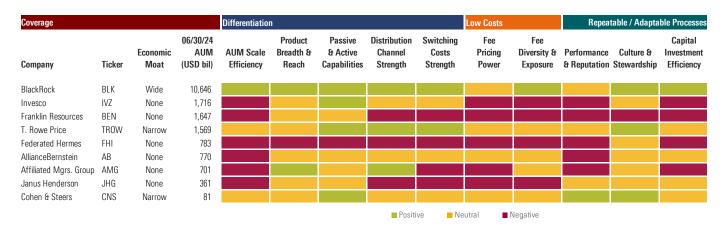
Exhibit 13 Geographic Revenue Contribution for Morningstar US-Based Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

As we tend to give more weight to Asset Class/Product Diversification over Geographic Diversification, we end up with positive ratings for BlackRock and AMG, given their broader product-set offerings and geographic reach, in the Product Breadth & Geographic Reach category. We have neutral ratings on Invesco, Franklin Resources, T. Rowe Price, AllianceBernstein, Janus Henderson, and Cohen & Steers as many of their positives are offset by weaknesses in their product platform and/or geographic reach. And we have a negative rating on Federated Hermes, which is overwhelmingly tied to money market funds—

basically commodified products, with government and retail money market funds offering no real advantage over bank deposits and bank-provided money market accounts.

Exhibit 14 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Passive & Active Capabilities

When assessing firms in this category, we looked at existing active and passive platforms—including index funds and ETFs—as well as fee competitiveness. We continue to believe retail and institutional investors will direct more of their investment activity to established providers of passive products and active asset managers that have greater scale, established brands, solid long-term performance, and reasonable fees. For firms to succeed on the passive side of the business, they need to have a solid track record of index investing and the scale necessary to offer products at attractive price points. Meanwhile, active managers will need to have reliable, repeatable investment processes that yield consistent levels of performance, offered at reasonable price points—relative to both passive offerings and their peers—to be successful. With both pricing and performance playing critical roles in investment decisions, the advantage goes to firms that can offer solidly performing funds at reasonable price points that have access to the distribution required to get products into investors' portfolios.

Index-Fund Providers

While a handful of traditional asset-management firms in our US-based coverage — BlackRock, Invesco, and AllianceBernstein — have sizable index-based product segments in their portfolios, only BlackRock has a meaningful presence in the industry, despite Morningstar Direct picking up only \$87 billion of AUM in index funds for the firm at the end of June 2024. BlackRock managed nearly \$3.1 trillion in institutional index AUM, including \$87 billion in open-end index funds, at the end of the second quarter of 2024. While this was still below the nearly \$4.2 trillion that Vanguard sourced from its open-end index fund offerings (noting that the company does not have a major presence in the institutional channel), it was more than enough for BlackRock to be competitive in this part of the industry.

We expect the US retail index-fund business, which expanded its AUM organically at a 5.2% (1.9%) CAGR during 2014-23 (2019-23), to continue to grow organically at a low- to mid-single-digit rate on average annually during 2024-28. Competition for product placement on the platforms of broker/dealer and advisory networks is likely to get even more intense, and ETFs are doing a good job of supplanting index funds on many platforms. Therefore, we expect only the largest providers of retail index funds—Vanguard, Fidelity (which has its own distribution platform), Schwab (which also has its own distribution platform), and Nuveen/TIAA—to be in the driver's seat when it comes to gathering retail index fund AUM over the next five to 10 years. That's not to say that others won't find growth; it's just that the size and scale of the largest players, as well as having control of their distribution in some cases, affords them the opportunity to drive fees lower than some of their peers might be willing to match.

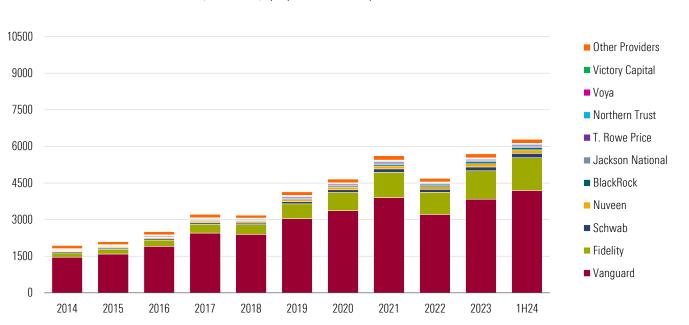


Exhibit 15 US-Based Index Fund Retail AUM (USD Billions) by Top 10 Market Participants — 2014-23 and First-Half 2024

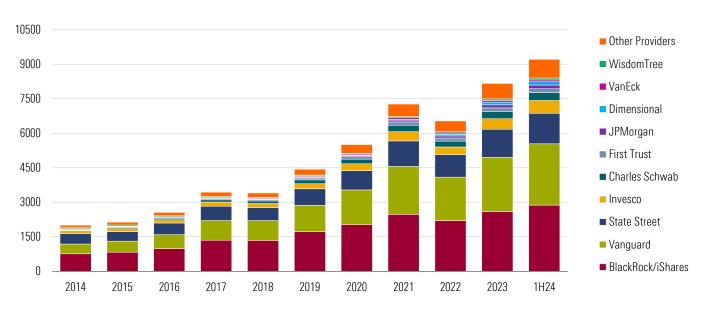
Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exchange-Traded Funds

Some of the biggest providers of index funds are also the largest ETF providers in the US market, with the five largest firms — BlackRock/iShares, Vanguard, State Street/SSgA, Invesco, and Schwab — accounting for 84% of the \$9.2 trillion invested in ETFs at the end of the second quarter of 2024. That said, the top three players have come to dominate the market for core index-based ETF offerings in the US market, leaving other providers and any potential new entrants to focus more on niche products — like strategic beta and actively managed ETFs. During 2019-23, BlackRock/iShares, Vanguard, and State Street/SSgA picked nearly 70% of the net flows recorded for the US ETF market and closed out the second quarter of 2024 with 18 of the 20 largest ETFs. Only State Street/SSgA, which still has the largest ETF on the market — the SPDR S&P 500 ETF with \$541 billion in AUM at the end of June 2024 — and

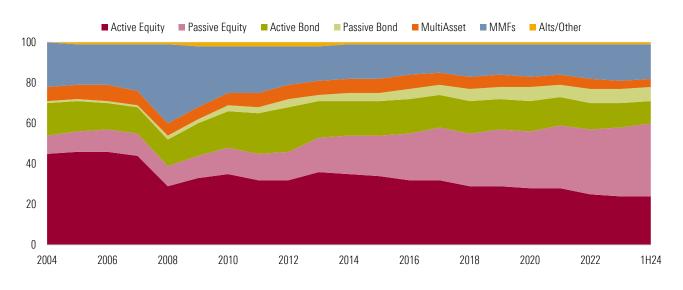
Invesco—with its Invesco QQQ Trust, the fifth-largest ETF with \$287 billion in AUM—broke the top 20 list of ETFs in the US market at the end of the second quarter of 2024.

Exhibit 16 US-Based ETF AUM (USD Billions) by Top 10 Market Participants — 2014-23 and First-Half 2024



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 17 Active/Passive Breakdown of US Open-End Funds & ETFs based on Percentage of Total AUM — 2004-23 and First-Half 2024



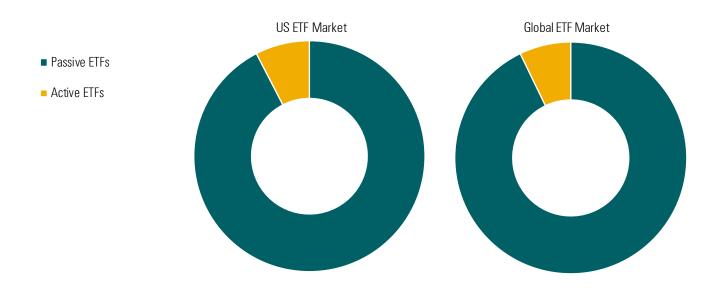
Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

With most of the AUM invested in ETFs in the US market held in funds tracking plain-vanilla indexes, and the largest ETF providers continuing to use their established brands, greater product liquidity, lower

fees, and expansive distribution reach to capture and hold the lion's share of the market, we do not expect the current makeup of the US ETF market—which has been shaped by the ever-increasing size and scale of some of the largest players—to change all that much in the near to medium term.

Overall, the growth of ETFs in the retail-advised market the past decade has been spurred on by both the secular shift toward passive investing and the transition of a lot of broker/dealers and advisory networks away from transaction- or commission-based fee structures to fee-based account structures. As such, they get paid based on the level of assets they are managing for their clients, making investment performance and product costs a much bigger consideration when looking for investment products to place in a client's portfolio.

Exhibit 18 Active/Passive Breakdown of US and Global ETF Markets, Based on Percentage of Total AUM — June 2024



Source: Company reports, Morningstar Direct, and Morningstar Research Services. Data as of Oct. 4, 2024.

For the more traditional asset managers we cover, the ETF industry was much easier to ignore around the time of the 2008-09 financial crisis, when it garnered just \$540 billion in AUM domestically, accounting for 5% of total US Open-End Funds (excluding Money Market and Fund of Funds), ETFs, Separate Accounts, and CITs tracked by Morningstar Direct. With close to \$9.2 trillion in AUM at the end of June 2024, accounting for more than 20% of the US investment company assets we monitor, and holding close to \$12.4 trillion in AUM worldwide, the ETF industry commands a lot more attention from the more traditional active asset managers these days.

With the core index-based ETF business already locked up, these traditional asset managers are left looking at niche products—like strategic beta and actively managed ETFs—for growth in this part of the asset-management business. The market for active ETFs was relatively small a decade ago, accounting for \$21.3 billion (or 1.1%) of the US ETF market and \$35.7 billion (or 1.3%) of the global ETF market at the

end of 2014—and was made up primarily of fixed-income and equity products. Pimco was the largest provider of active ETFs at the end of 2014, holding \$10.7 billion in bond ETF AUM compared with \$18.0 billion in total active fixed-income ETF AUM. The next-largest providers of active ETFs were WisdomTree (\$3.6 billion of niche equity and bond ETFs), Bank of Montreal (\$3.0 billion of predominantly active equity ETFs following more-traditional equity strategies), and Invesco (\$2.9 billion of strategic beta products).

Compare this with the end of June 2024, when there was \$694.6 billion in US-based AUM dedicated to actively managed ETFs (or 7.6% of the \$9.2 trillion in total domestic ETF AUM) and \$888.8 billion in global active ETF AUM (or 7.2% of the \$12.4 trillion in total worldwide ETF AUM). Dimensional Fund Advisors was the largest global provider of active ETFs at the end of the second quarter, with \$150.6 billion in primarily strategic beta funds focused on equities (92%) and fixed-income (8%) strategies. DFA, which has been a big player in the strategic beta fund market the past decade (with the active component of the firm's fund management keeping a lot of its AUM out of the passively managed segment of Morningstar Direct's database), has not been bashful about moving into ETFs the past four years. It began launching stand-alone ETF versions of some of its mutual fund strategies in November 2020. And last year, the firm filed a request with the SEC to allow it to use Vanguard's hybrid mutual fund-ETF structure (which had gone off patent) to offer an ETF share class of its existing mutual funds.

Nearly two dozen firms have now filed to offer exchange-traded funds as share classes of their existing mutual funds or, in some cases, vice versa. Vanguard had a patent on the dual share class structure, through which the firm offered ETF share classes of its passive funds, which expired last year. Exemptive relief applications trickled in slowly at first, with just Dimensional and the US division of Perpetual filing for exemptive relief between February and July of last year. Since then, however, applications have come flooding in, with 21 more firms, including AllianceBernstein, Fidelity, and T. Rowe Price, having filed this past year. So far, DFA's foray into the active ETF market has been the most successful effort among the more traditional active fund providers.

Actively managed ETFs currently make up a disproportionate number of all ETF launches and inflows. Despite accounting for 7.6% of US-based ETF AUM (and 7.2% of total global ETF AUM), nearly 70% of all recently launched ETFs have been active funds. This boom followed the change in SEC regulations that made it far easier for firms to launch active ETFs. That said, actively managed ETFs have also made up a disproportionate share of closures, with more than 100 active ETFs shutting down last year, accounting for 43% of all ETF closures during 2023. Most of these active ETFs are also transparent rather than semitransparent, which means that they report their holdings daily. T. Rowe Price, though, which must give some thought to protecting the mutual fund strategies on which its active ETFs are built, has launched just five fully transparent funds, with the other five ETFs it has launched, which are clones of existing mutual fund strategies, being semitransparent.

One of the main advantages of ETFs relative to mutual funds is their tax efficiency. In the ETF share creation and redemption process, securities, rather than cash, trade hands, which defers capital gains taxes. This means that they avoid most of the capital gains distributions that annoy most mutual fund

investors in taxable accounts. That said, ETFs, which benefit investors more when they can be scaled up (with fees coming down as a result), aren't appropriate for all strategies. They can't really be closed to new investors in the same way that traditional mutual funds can—especially where there are limits to their being able to be scaled up (like with small- and mid-cap equity strategies).

While active ETFs, especially ones being launched using Vanguard's dual share class structure, can provide the more traditional active asset managers a more tax-efficient wrapper for many of their mutual fund strategies, we remain concerned that the sales they are generating are merely cannibalizing sales that they would be producing with their mutual funds. At the end of the day, the biggest problem for active managers is that their investment performance does not justify the fees they are charging. While changing the wrapper might help investors from a cost and tax-efficiency perspective, as the expense ratios tend to be lower than mutual fund equivalents and there are few discernable taxable events in the ETF share creation and redemption process, we're not sure that it adds much value to the asset manager other than perhaps opening up a distribution channel that might have been closed to their mutual funds.

Active Management

As for active management, especially actively managed equity funds, we continue to see the road ahead as being fraught with far more headwinds than tailwinds. The biggest disruptor to active management the past two decades has been the poor relative investment performance of active open-end funds, which, according to the 2024 Investment Company Fact Book from the Investment Company Institute accounted for 75% of an estimated \$33.9 trillion in AUM invested in US-based mutual funds, ETFs, traditional closed-end funds, and UITs at registered investment companies at the end of 2023.

Exhibit 19 SPIVA US Scorecard: Percentage of US Equity Funds by Fund Category Outperforming Benchmarks—December 2023

Category	1-Year	3-Year	5-Year	10-Year	15-Year	Index
All Large-Cap Funds	40.3	20.2	21.3	12.6	12.0	S&P 500 Index
Large-Cap Core	27.4	20.7	19.4	3.6	5.4	S&P 500 Index
Large-Cap Value	9.2	6.1	7.1	7.2	6.2	S&P 500 Value
Large-Cap Growth	90.2	27.9	41.5	15.9	12.5	S&P 500 Growth
All Mid-Cap Funds	50.3	30.0	34.1	19.6	11.8	S&P MidCap 400
Mid-Cap Core	27.9	41.2	21.7	10.7	6.3	S&P MidCap 400
Mid-Cap Value	25.0	29.1	22.6	5.6	8.9	S&P MidCap 400 Value
Mid-Cap Growth	75.6	12.5	55.3	36.7	17.2	S&P MidCap 400 Growth
All Small-Cap Funds	51.7	35.8	38.9	11.7	13.1	S&P SmallCap 600
Small-Cap Core	48.3	47.6	39.9	7.5	6.6	S&P SmallCap 600
Small-Cap Value	63.2	50.7	37.9	12.0	15.6	S&P SmallCap 600 Value
Small-Cap Growth	45.3	13.0	46.2	16.0	15.2	S&P SmallCap 600 Growth

Source: S&P Indices Versus Active Funds (SPIVA) US Scorecard—Year-End 2023.

This poor relative investment performance has been a particular problem for active managers of Large-Cap US Equity funds, which account for 84% of the equity investment funds monitored by Morningstar Direct, as well as a large portion of the equity AUM currently managed by the nine US-based traditional asset-management firms we cover. Based on data collected by S&P Dow Jones indexes as part of their S&P Indexes Versus Active Funds, or SPIVA, US Scorecard project, close to 80% of all active large-cap US equity managers on average were underperforming their benchmarks over the past three- and five-year time frames at the end of 2023. While results looked much better on a one-year time frame, with just 60% underperforming, the three- and five-year results matter more to institutional consultants and the gatekeepers of broker/dealer and advisory networks when looking to add/keep funds on their platforms.

While some managers argue that comparing fund performance against benchmarks like the S&P 500 index is not ideal, as benchmarks do not charge fees and do not have to maintain a certain percentage of holdings in cash to meet investor redemptions, active managers of US Equity funds still come up short when compared with actual fee-paying passive funds tracking the benchmarks for their categories. As such, we have used Morningstar's US Active/Passive Barometer to assess the performance of US active fund managers against their passive peers within their respective Morningstar categories. By looking at active managers' performance relative to actual net-of-fee performance of comparable passive funds, we find that we can get a much clearer picture of how active fund managers have performed.

Exhibit 20 Morningstar US Active/Passive Barometer: Active Funds' Success Rate Percentage by Fund Category — December 2023

Category	1-Year	3-Year	5-Year			
				Overall	Lowest Cost	Highest Cost
US Large Blend	46.8	39.5	30.7	12.7	18.6	9.3
US Large Value	49.1	34.3	34.5	12.2	16.7	13.1
US Large Growth	53.2	35.7	25.6	11.2	14.6	3.4
US Mid Blend	48.7	57.8	37.0	15.2	22.7	4.3
US Mid Value	45.4	30.2	45.9	7.5	5.3	0.0
US Mid Growth	33.6	43.4	55.6	38.9	38.1	29.5
US Small Blend	57.1	55.7	44.2	25.5	35.1	30.0
US Small Value	34.3	38.8	41.0	25.0	33.3	28.6
US Small Growth	30.1	33.3	51.5	41.3	50.0	40.5

Source: Morningstar US Active/Passive Barometer — Year-End 2023.

At the end of 2023, the Morningstar US Active/Passive Barometer, which encompassed some 8,300 unique active and passive domestic funds (accounting for around \$18 trillion in assets, or about 53% of the estimated \$34 trillion in AUM invested in US-based mutual funds, ETFs, traditional closed-end funds, and UITs at registered investment companies at the end of last year), demonstrated that active large-cap US Equity managers continue to struggle to beat their benchmarks on a one-, three-, five- and 10-year

basis. The US Active/Passive Barometer report, which was first introduced in June 2015 and is published biannually, has found that actively managed funds have generally underperformed their fee-earning passive counterparts, especially over longer time horizons. In addition, this failure has tended to be positively correlated with fees, with higher-cost funds more likely to underperform or be shuttered or merged away, and lower-cost funds likelier to survive and enjoy greater odds of success.

Long-term success rates across actively managed US large-cap US equity funds have been generally lower than those among mid- and small-cap US equity funds. Even so, less than 58%, 56%, and 42% of active funds in each of the nine Morningstar equity categories represented in the Morningstar Style Box outperformed the category's fee-paying passive options over the past three-, five-, and 10-year time frames through the end of 2023. At this point, actively managed US equity funds are synonymous with underperformance, such that firms with greater exposure to actively managed US equities—like Janus Henderson and Cohen & Steers—are more likely to be candidates for a Negative rating.

That said, we do take a closer look at actual fund performance for each of the firms we cover, focusing in on: Morningstar's overall fund rating for the firm (as well as the percentage of fund assets with 4- and 5-star ratings during the past three and five-year time frames); each firm's three- and five-year investment performance relative to benchmarks (usually reported by the asset managers themselves with varying degrees of detail for performance by asset class categories); and, each firm's three- and five-year risk-adjusted Morningstar Active Fund Success Ratio (which measures the potential for a firm's funds to generate peer-beating returns over the long run). All of which we will touch on more deeply when looking at Investment Performance & Manager Reputation.

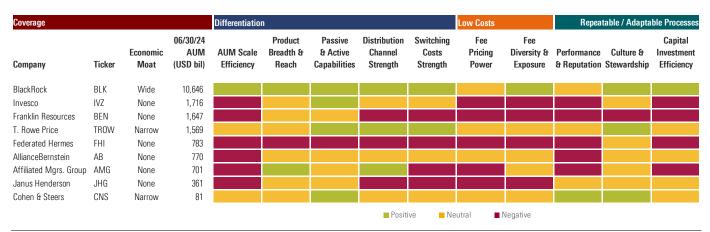
And as we noted above, we tend to focus a lot more of our energy on three- and five-year investment performance figures because these are the time frames most institutional and retail-advised gatekeepers tend to prioritize when making investment decisions. While one-year performance might have a huge influence on retail flows, it is not indicative of a firm's competitive positioning with its funds. The same could be said for 10- and 15-year performance. Although it is impressive in most circumstance for an asset manager to not only outperform during both the near and medium term but over extended periods of time (as it is usually indicative of a strong investment culture with repeatable investment strategies), the three- and five-year performance tends to have a greater influence on the decision-making process.

With the competitive positioning of a firm's active fund offerings (which is exemplified in our Passive & Active Capabilities rating) being dependent on not only investment performance, manager reputation, and investment company stewardship and processes (captured in Investment Performance & Manager Reputation and Firm Culture & Stewardship) but fund fee levels—especially relative to median price points for the categories where funds from each of the firms we cover compete (which we assess in our Fee Pricing Power and Fee Diversity & Exposure segments)—this is one area of our overall assessment of each firm where we overlap with the other attributes.

¹ Morningstar, "US Active/Passive Barometer — Year-End 2023."

As for the ratings we have assigned for Passive & Active Capabilities for the US-based traditional asset managers we cover, we have given positive ratings to BlackRock, Invesco, T. Rowe Price, and Cohen & Steers (as strengths in their active and/or passive platforms more than outweigh their weaknesses). As for Franklin Resources, AllianceBernstein, AMG, and Janus Henderson, we have awarded these firms neutral ratings, with many of their positives offset by weakness in their product platforms. Last, we have given a negative rating to Federated Hermes, which is overwhelmingly tied to money market funds — basically commodified products, with government and retail money market funds offering no real advantage over bank deposits and bank-provided money market accounts.

Exhibit 21 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Distribution Channel Strength

While product diversity, performance, and price are expected to be the principal sources of competition for the US-based traditional asset managers, distribution channel positioning (and a firm's strength in the channels where it competes) are important to consider when assessing competitive positioning. Most of the asset managers we cover utilize one of three different distribution channels: institutional (which we differentiate as large institutional client relationships and retirement plans sponsors), retail (composed of intermediaries, self directed, and retail/high net worth) and high net worth. The stickiest channels for the US-based traditional asset managers tend to be the retirement, high-net-worth, institutional, and retail-advised channels, with self-directed retail AUM tending to be the least sticky.

That said, institutional client AUM can be large and lumpy, with mandates up for renewal every several years (if not annually), while the retail-advised channels have gotten more complicated as the gatekeepers for broker/dealer and retail-advised networks have focused more heavily on performance and fees, raising the hurdles for getting and/or maintaining placement on these platforms. To be successful in the future, firms need to have strong relationships with institutional investors and the distributors serving retail and high-net-worth clients, offerings products that not only meet their specific needs but have solid long-term investment performance and reasonable fees. At this point, most of our US-based coverage could do a better job of strengthening and diversifying their distribution footprints.

100 High-Net-Worth ■ Retail/HNW 80 ■ Retail: Self-Directed ■ Retail: Intermediaries 60 ■ Retirement Plans Institutional 40 20 0 BLK IVZ BEN **TROW** FHI ΑB **AMG** JHG CNS

Exhibit 22 Distribution Channel AUM Exposure for Morningstar US-Based Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

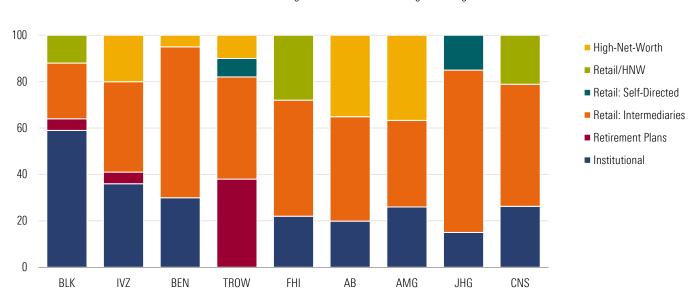


Exhibit 23 Distribution Channel Revenue Contribution for Morningstar US-Based Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

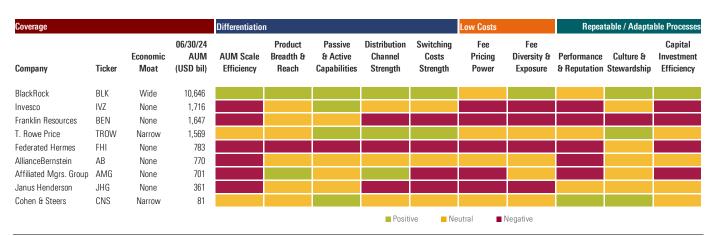
From a revenue contribution perspective, institutional investors, because of the size and stability of their investments, can often negotiate better fee structures with the US-based traditional asset managers, leaving their fees among the lowest an asset manager can earn. The retail channel, on the other hand, tends to be the most lucrative, with management fees (exclusive of marketing, commission, and additional related fees) being much higher than what we see in the institutional channel, primarily because of the weaker purchasing power of investors in this channel. That said, there is a bit of a

hierarchy, with management fees from the retail-advised channels tending to be lower than those generated from self-directed retail offerings, given the power that the gatekeepers of the broker/dealer and retail-advised networks have over product pricing. Meanwhile, management fees from the high-networth channel tend to be more in line with the fees we see from the retail-advised channel.

For an example of the difference between institutional and retail management fees, BlackRock's active equity and fixed-income funds, which are predominantly distributed through the retail channel, are currently collecting management fees of 47 basis points and 17 basis points, respectively. The firm's institutional index products, on the other hand, are charging fees of 3 basis points and 5 basis points, respectively. This is somewhat below the average fees we see for active separate accounts, which tend to run closer to the fees charges for retail-channel products, as they are passively managed funds. And just for some added color, BlackRock's iShares/ETF operations, which are predominantly passive, are currently generating management fees of 18 basis points and 14 basis points, respectively, despite having funds like the iShares Core S&P 500 ETF, the iShares Core S&P Total US Stock Market ETF, and the iShares Core US Aggregate Bond ETF charging 3 basis points.

Looking at our Distribution Channel Strength ratings for the US-based traditional asset managers we cover, BlackRock, T. Rowe Price, and AMG have all received positive ratings, given the positioning of their distribution channel reach. And while, Invesco, AllianceBernstein and Cohen & Steers have done enough to receive neutral ratings, Franklin Resources, Federated Hermes, and Janus Henderson have all received negative ratings.

Exhibit 24 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Switching Costs Strength

Switching costs are the costs customers incur when changing brands, products, or suppliers. Switching costs can be monetary, such as high cancellation fees, and they can also be psychological. Switching costs can manifest themselves as significant time and effort required to change suppliers, the risk of disrupting a firm's normal operations during a transition period, and/or a failure to obtain similar or

better products or services when switching. Although the switching costs might not be explicitly large for the US-based traditional asset managers, investor inertia, the uncertainty of achieving better results by moving from one asset manager to another, and/or the potential tax consequences associated with selling an investment have tended to keep investors in place for extended periods. On top of that, asset managers offering niche products with embedded switching costs—such as retirement accounts, funds with lockup periods (predominantly private-market funds), and tax-managed strategies—tend to have stickier assets than managers focused on products with industry-level switching costs.

Overall, it has been our experience that money that flows into traditional asset management firms tends to stay there — borne out in the US by what has been stable average annual retention rates for long-term mutual funds the past three decades. According to Investment Company Institute data (which goes back further and has both the sales and redemption components of net flows), the average annual retention rate for long-term mutual funds (which excludes money market funds) has been around 76% annually for the US mutual fund industry (including both actively managed funds and index funds) the past 30 years. While we have seen redemptions (which reduce the retention rate of the industry) rise during periods or market declines/dislocations (like 2008, 2018, 2020, and 2022) the industry's retention rate tends to bounce back quickly to historical averages.²

90 ◆ High Retention Rate ◆ Average Retention Rate ◆ Low Retention Rate 85 80 75 70 65 60 1994-98 1999-03 2024-28E 2004-08 2009-13 2014-18 2019-23

Exhibit 25 Long-Term US Mutual Funds: Annual Retention Rate Percentages in Five-Year Periods — 1994-2028E

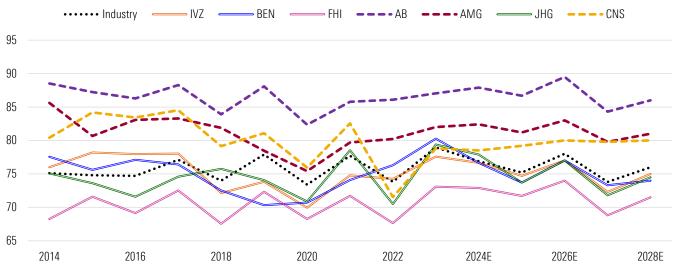
Source: Investment Company Institute: Investment Company Annual Fact Book-2024.

While the industry-level retention rates might not be all that impressive (given that some industries like software have retention rates in the 90s), they are the baseline against which we judge the switching cost strength of the US-based traditional asset managers. Within our coverage, only a few firms—
AllianceBernstein, Affiliated Managers Group, and Cohen & Steers—have generated annual retention

² Investment Company Institute, "2024 Investment Company Fact Book: A Review of Trends and Activities in the Investment Company Industry," 64th Edition. Data files for open-end fund sales and redemptions now housed online here.

rates better than the industry average over the past decade, while Federated Hermes has been alone in consistently underperforming the industry average. In most cases, the larger-than-average publicly traded firms we cover have tended to have redemption rates at/near the industry average, highlighting our long-standing observation that the larger more established and diversified asset managers have an advantage over smaller players when it comes to gaining access to—and maintaining placement on—distribution platforms, which can act as a buffer for investor redemptions.

Exhibit 26 Annual Retention Rates (%) for US-Based Traditional Asset Managers and the Industry — 2014-28E



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Both BlackRock and T. Rowe Price have been excluded from this chart because neither firm breaks out their sales and redemption data, providing only net flows in their quarterly/annual releases. That said, based on data provided by the Investment Company Institute, the average annual retention (redemption) rate for defined contribution plans has been around 94% (6%) annually the past decade, and was several percentage points better that that prior to the onset of the baby boomer retirement phase in 2011. While this would seemingly confirm our long-standing belief that T. Rowe Price's average annual redemption rate has been, at its worst, no worse than the industry rate, given the better switching cost profiles of defined contribution plans, we're not getting the whole picture with the ICI data.³

For starters, the Institute's data is just looking at the money that has come into plans (in the form of regular employee and company-matching contributions) and the money that has gone out (in the form of employee withdrawals — from lump-sum distributions to regular annual retirement withdrawals to hardship withdrawals). It is not considering sales and redemptions for open-end funds and/or target-date funds that might be on the platform, which is where T. Rowe Price is going to have a presence.

³ Investment Company Institute, "2024 Investment Company Fact Book: A Review of Trends and Activities in the Investment Company Industry," 64th Edition. Data files for open-end fund sales and redemptions now housed online.

In most cases, 401(k) plans will have a mixture of open-end funds, while target-date fund options will come from a single provider. Although we are not privy to the sales and redemption activity for these funds in DC plans, we would note that exposure to asset classes and/or target-date funds tends to change less often in the retirement channel than in other channels, and that the average annual retention rate for firms catering to this channel, like T. Rowe Price, is likely somewhere between the industry rate of 76% and the rate for DC plans of 94%.

When looking at Switching Costs Strength for the US-based traditional asset managers we cover, we look not only at retention rates, which fall into the more traditional definition of switching costs, but organic AUM growth, which measures a firm's ability to sell products in the face of ongoing redemptions. Organic AUM growth reflects net flows into long-term funds—made up of all traditional asset classes except for money market funds—divided by beginning of period long-term AUM. If organic AUM growth is positive, it means that a manager is generating more in sales than he is giving up to redemptions each period. In contrast, a negative result, which has been the case during the past couple of decades for most of the US-based traditional asset managers we cover, highlights an inability to offset redemptions with new business, which makes a firm more reliant on market gains to expand AUM.

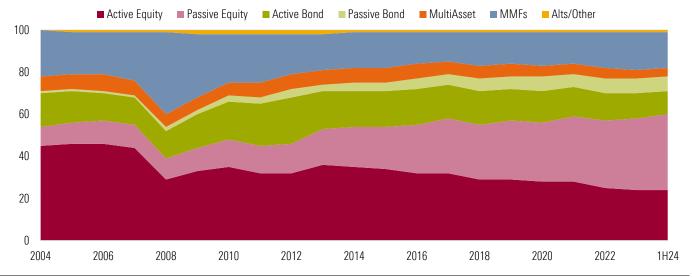
Retention rates for the industry tend to be stable, so organic AUM growth provides us with a more robust picture of a firm's drawing power. Generating positive organic AUM growth for the US-based traditional asset managers depends on several factors, such as average to above-average investment performance to keep fund redemption rates at or below historical averages. The traditional asset managers would also be prudent to deploy a combination of investment-performance and brand marketing, and to sell products that customers want to buy, which for the US-based asset managers during the past decade has primarily been passive products—index funds and ETFs—and alternative offerings.

Firms that have demonstrated an ability to gather and retain investor assets during different market cycles have been less reliant on market gains to generate AUM growth and have tended to produce more-stable levels of revenue and profitability, with returns exceeding their cost of capital for longer periods. In most cases, we are going to give higher ratings to asset managers with higher retention rates and track records of above average organic AUM growth relative to the rest of the industry, and lower ratings to asset managers that have had lower retention rates and/or a history of below average organic AUM growth. We also pay attention to how the US-based traditional asset managers are expected to perform going forward, all of which is influenced by where we are in the investment cycle, how each firm is positioned by product set, geography, and distribution channel, and where fees and performance track records are relative to the industry and their peers.

Before starting the discussion of organic AUM growth, we should highlight that most of our US-based traditional asset manager coverage (except for BlackRock) are predominantly tied to active fund management — and active equity fund management at that — which has created massive headwinds for sales growth (leading to negative organic AUM growth in most cases). Passive product growth the past

two decades has diminished the active equity category (including both ETFs and open-end funds), which accounted for 45% of total industry AUM monitored by Morningstar Direct (of \$7.4 trillion including all asset classes) at the end of 2004 but just 24% of the industry (estimated at \$35.0 trillion) at the end of June 2024. Meanwhile, the passive equity category—driven by the relentless growth of index funds and ETFs—has risen from 9% of total industry AUM in 2004 to 35% at the end of the first half of 2024.

Exhibit 27 Active/Passive Breakdown of US Open-End Funds and ETFs, Based on Percentage of Total AUM — 2004-23 and First-Half 2024



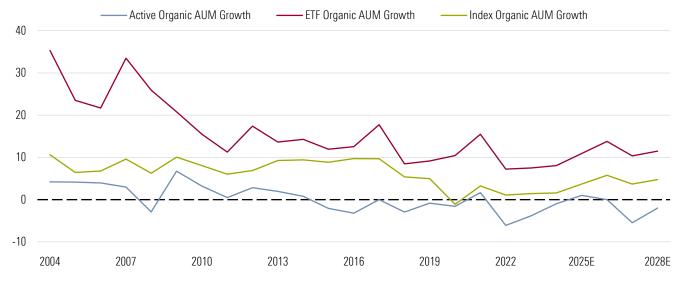
Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

The active bond category has not been immune from this transition either, although it is still early days with much of passive bond-fund/ETF growth not being open-end fund replacement based like we've seen in the equity part of the market (where extremely low-cost index-based passive ETFs and open-end funds have taken sales away from actively managed funds and/or replaced them in client portfolios). At the end of 2004, actively managed bond funds accounted for 16% of total industry AUM monitored by Morningstar (of \$7.4 trillion) and just 11% of the industry (estimated at \$35.0 trillion) at the end of June 2024. Meanwhile, passive bond funds went from 1% of industry AUM in 2004 to 7% at the end of June 2024. Based on what we've seen with category AUM levels, it should come as no surprise to note that the US-based traditional asset managers' greater exposure to active products has been a net negative.

During 2014-18, the average annual organic AUM growth rate for actively managed funds was negative 1.5%, while it was positive 13.0% for passive ETFs and 8.6% for index funds. Things worsened for every segment during 2019-23, owing to both the covid pandemic and the 2022-23 equity and credit market dislocation, which affected both redemptions (which crept above 26% in those two years) and sales for the industry (which fell off rather dramatically in 2022-23). During that five-year period, the average annual organic AUM growth rate for actively managed funds was negative 2.2%, while it was positive 9.9% for passive ETFs and 1.9% for index funds. Even so, the past decade played out to the advantage of the major providers of passive products, which garnered most of the industry's flows. We expect passive

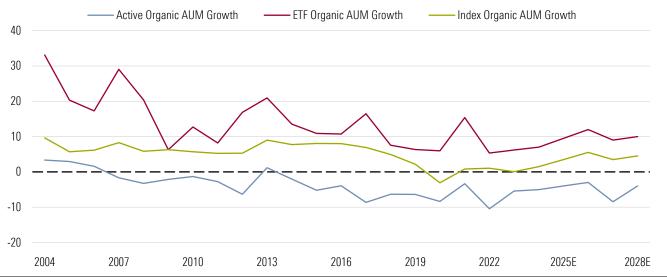
ETFs to grow organically at a low-double-digit rate annually, while index funds should grow at a mid-single-digit rate, during 2024-28. Meanwhile, actively managed funds are expected to see negative low-single-digit annual organic AUM growth the next five years.

Exhibit 28 Annual US Industry Organic AUM Growth Rates by Active Funds, Passive ETFs, and Index Funds — 2024-28E



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 29 Annual US Equity Organic AUM Growth Rates by Active Funds, Passive ETFs, and Index Funds — 2024-28E



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024.

Looking specifically at US Equity funds, which account for a large share of the AUM of most of the US-based traditional asset managers we cover, the average annual organic AUM growth rate for active

funds was negative 5.3% during 2014-18, while it was positive 11.8% for passive ETFs and 7.1% for index funds. During 2019-23, the average annual organic AUM growth rate for actively managed funds was negative 6.8%, while it was positive 7.8% for passive ETFs and 0.2% for index funds. Going forward, we expect passive Equity ETFs to grow organically at a high-single-digit rate annually, while index funds should grow at a mid-single-digit rate, during 2024-28. Meanwhile, actively managed funds are expected to see negative mid-single-digit annual organic AUM growth the next five years.

Given the heavier reliance most of our US-based traditional asset manager coverage has on active equities, organic AUM growth for the group is going to track active equity fund growth more closely, with active bond-fund flows having more of an impact during periods of market dislocation. As such, consistently positive organic AUM growth has eluded most of the managers in our coverage the past decade—with BlackRock being the one notable exception (due to its heavier focus on passive products). That's not to say that some firms haven't seen spurts of positive organic AUM growth from time to time, it's just that it has been difficult for these primarily active fund managers to maintain the positive trajectory. In many cases, the positive organic AUM growth they've reported has been driven by inflows from the institutional channel, which is notorious for generating large flows on a sporadic basis. The key for us is how these firms compare with the broader industry from an organic AUM growth perspective.

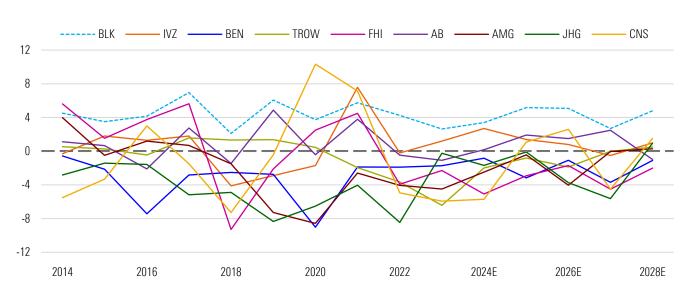


Exhibit 30 US-Based Traditional Asset Manager Coverage Annual Organic AUM Growth (%) — 2014-28E

Source: Company reports, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024.

Looking at the annual organic AUM growth of the nine US-based traditional asset managers we cover, BlackRock continues to keep the bar high for the group, producing a 4.2% CAGR for organic AUM growth during 2014-18 and generating a 4.5% CAGR during 2019-23 (with most of this growth coming from its passive product offerings). Our current forecast has the firm generating average annual organic AUM growth of 4.2% during 2024-28. Only two other firms come close to matching that track record — Invesco and AllianceBernstein — albeit at much lower rates of growth.

Invesco seems to have finally put some of its past woes behind it, going from generating a 0.1% CAGR for organic AUM growth during 2014-18 to producing a 0.7% CAGR during 2019-23 (with the growth being broad-based with weakness in one asset class offset by strength in another). Our current forecast has the firm generating average annual organic AUM growth of 1.1% during 2024-28. That said, Invesco has been pulling in significantly more passive ETF and UIT flows than it has flows into its actively managed funds the past several years, which has been a drag on its overall management fee realization rate, given that a large portion of the ETF/UIT offerings driving the flows are low to no-management fee earning funds. While these engagements can be relatively short term in nature, the low to nonexistent revenue yield on these products has a significant impact on revenue yield.

Active Funds Passive Funds --- Active Equity Passive Equity - Active Bond Passive Bond Cvg. Ex-BLK Cvg. Average 25 20 15 10 5 0 -5 -10 -15 2014 2016 2018 2020 2022 2024E 2026E 2028E

Exhibit 31 Traditional US-Based Asset-Manager Coverage Annual Organic AUM Growth (%) Relative to Industry — 2014-28E

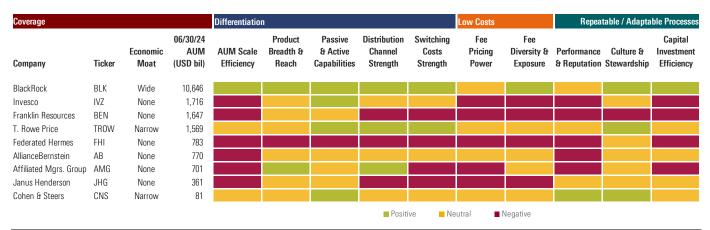
Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024.

Much like Invesco, AllianceBernstein has seen an improvement in its fortunes the past decade, going from producing a 0.2% CAGR for organic AUM growth during 2014-18 to generating a 1.3% CAGR during 2019-23 (with the firm's growth also being fairly broad-based). Our current forecast has the firm generating average annual organic AUM growth of 1.0% during 2024-28. Despite the positive flow picture, AB continues to face a confluence of several issues—less than ideal relative active investment performance, the continued growth of low-cost index-based products, and the expanding power of the retail-advised channel—that have made it increasingly difficult to generate organic AUM growth.

As for our Switching Costs Strength ratings, BlackRock (with its continued focus on passive products and solidly positioned actively managed funds) and T. Rowe Price (which has struggled with organic AUM growth but has a far more desirable channel concentration with higher retention rates) have received positive ratings. Given their slightly better organic AUM growth profiles we have given Invesco, AllianceBernstein, and Cohen & Steers neutral ratings. And for Franklin Resources, Federated Hermes,

AMG, and Janus Henderson, which have struggled with major outflows despite in some cases having above-average retention rates, we have given then negative ratings.

Exhibit 32 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024.

Fee Pricing Power

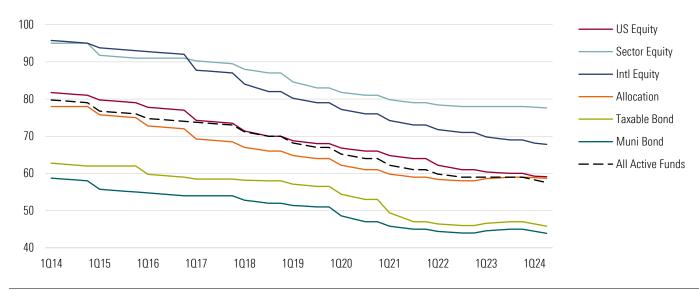
Given the greater level of scrutiny on investment performance and management fees, we believe the US-based traditional asset managers with the highest fees (and a lack of performance to justify those fees) have the most to lose, as lower-cost offerings continue to take share, forcing them to lower their fees to remain competitive (let alone maintain placement on retail distribution platforms). While reduced fees are one of the easier levers to pull for firms looking to differentiate their products, it comes with both positives and negatives. On the positive side, 5-, 10- or 15-basis-point reductions in base management fees would likely lead to 5-, 10- and 15-basis-point improvements in annual performance when compared with what performance would have been like had there been no fee reduction. On the negative side, fee compression tends to lead to revenue and operating margin compression—that is, absent a large uptick in AUM via increased sales and/or market gains.

That said, based on conversations we've had with the management teams of not only the US-based traditional asset managers we cover but the heads of other large and small fund manufacturers in the industry, it is highly unlikely we'll see managers taking an axe to their management fees anytime soon. After all, it makes no sense to cut fees dramatically on an underperforming fund that is in net redemption mode, because it would do little to stem the outflows and the asset manager would forgo revenue that would likely have been collected at the previous price point. That's not to say that we won't see a fund manager or two taking more drastic action to realign their fees, but that kind of action will more likely come from firms that have allowed their pricing structures get out of whack with their peers.

Looking at average asset-weighted expense ratios for active funds by Morningstar category during the past decade (which serves as a good proxy for what we should be seeing with the US-based traditional asset managers we cover), the average expense ratio for all funds dropped below 60 basis points this

past year as fee rates for actively managed equity and bond funds continued to be pressured by the growth of low-cost passive products and more discerning retail distribution platforms. In most cases, these should be the price ceilings for what the managers in our coverage are charging for funds in each of these categories, as many of them should be working to keep their management fees at or below the median price point for their funds in each of these categories. In fact, we expect most asset managers to have to make small reductions in their management fees annually based on where they are positioned relative to the median price point for their funds in each category, given the focus that the gatekeepers of broker/dealer and retail-advised networks have put on investment performance and fees.

Exhibit 33 Average Asset-Weighted Fees (in Basis Points) by Morningstar Category for Active ETFs and Open-End Funds — 2014-23 and First Half of 2024



Source: Morningstar Direct, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024. Estimates for 2024 based on trendline of fee rates in Morningstar's 2023 US Fund Fee Study.

That said, asset managers that are more equity heavy and compete more directly with low-cost large-cap index-based index funds and ETFs, are likely to need to make larger fee reductions going forward. Our general view has been that most run of the mill active large-cap equity managers will have to make annual fee reductions of 3%-5% to work their fees' rates down to something closer to what investors are willing to pay for actively managed funds. There will be some firms that will take larger cuts, and some that will make smaller reductions, though, based on where they're positioned relative to median price points, as well as the performance of their funds, in the categories that they compete in.

As for the passive side of the business, most of the fee compression we've seen there has been driven by the rapid scaling up of assets in both index funds and ETFs the past decade, with the average expense ratio for all passive funds dropping down closer to 10 basis points the past couple of years. While the market for index funds hasn't been overly price competitive over the years (that is, until Fidelity rolled out its Zero Expense Ratio Index Funds in 2018—which, not surprisingly, have not caught on with the rest of the industry), the passive ETF market has seen a fair amount of price competition.

60 - US Equity Sector Equity 50 Intl Equity - Allocation 40 - Taxable Bond 30 Muni Bond - All Passive Funds 20 10 0 4013 4014 4015 4016 4017 4018 4019 4020 4021 4022 4023

Exhibit 34 Average Asset-Weighted Fees (in Basis Points) by Morningstar Category for Passive ETFs and Open-End Funds —2014-23 and First Half of 2024

Source: Morningstar Direct, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024. Estimates for 2024 based on trendline of fee rates in Morningstar's 2023 US Fund Fee Study.

Over much of the past decade, fee cuts from one ETF issuer have generally been followed by cuts by a rival issuer, with those fee reductions tending to happen in relatively short order. While Vanguard and Schwab have in the past pursued strategies of offering products with extremely low fees to generate sales, we had started to see some of this price competition ease as fees have gotten closer and closer to zero on large-cap index-based offerings (which are currently charging 2-3 basis points). Vanguard being structured as a mutually owned organization has historically allowed the firm to be far more aggressive on pricing, but it seems like the revolving door at the executive suite combined the firm's need to retain capital to invest in its operations has made the firm far less aggressive on the fee front. We also suspect that maturing organic AUM growth in the US equity ETF market has reduced the return on price-cutting efforts for most firms, and it looks like the bond ETF market needs more scale to justify price cuts.

Looking at the past five calendar years, the movement of client assets into lower-cost offerings, as well as the pressure put on funds with higher than average fees to cut fees or risk being culled from retail-advised platforms, has kept up the pressure on fees, with the asset-weighted average expense ratio for all actively managed US funds (both open-end funds and ETFs) declining from 70 basis points at the start of 2019 to 58 basis points at the start of 2024—a 15.7% decline (or a negative 3.0% CAGR for active fees annually the past five years). Interestingly, fee compression has been greater for index funds and passive ETFs than it has been on active funds the past five years (coming in at a negative 5.2% CAGR), as the ever-increasing scale of passive funds continues to allow this part of the industry to offer products at lower price points while still generating industry-level (or higher) operating margins.

Active Funds/ETFs ■ Index Funds/Passive ETFs 0 -2 -4 -6 -8 -10 -12 -14 -16 **US** Equity Sector Equity Intl Equity Allocation Taxable Bond Muni Bond All Funds

Exhibit 35 Five-Year CAGR (%) for Asset-Weighted Average Expense Ratio by Morningstar Category for Open-End Funds and ETFs — 2019-23

Source: Morningstar Direct, Morningstar Research Services data and estimates. Data as of Oct. 4, 2024. Estimates for 2024 based on trendline of fee rates in Morningstar's 2023 US Fund Fee Study.

Although institutional investors and the retail gatekeepers for broker/dealer and advisory networks continue to exert pressure on pricing, competition based on price has been rare, aside from what we've seen in the market for ETFs. Even so, fee compression continues to be a lingering issue for the nine US-based traditional asset managers we cover. While the group had not seen management fees decline as dramatically as much as the rest of the industry the past decade, average asset-weighted expense ratios for the industry have started to decline at a slower rate of late than they had been, while fees continue to come down for our coverage at around the same pace we've seen the past several years.

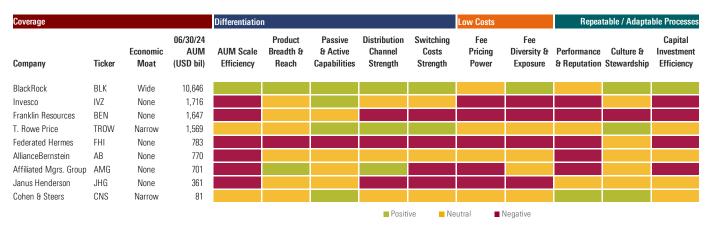
Having been historically priced at/below average industry rates for active funds, there had been less pressure on firms in our coverage to lower their fees. But that looks to have shifted some the past couple of years as we've seen higher rates of decline in the realization rates for some of the managers in our coverage than we've seen in the industry. Invesco, Franklin Resources, Federated Hermes, and AMG, for example, have all seen their base management fees decline more than the group average and actively managed funds overall the past couple of years, leading to our negative ratings. Janus Henderson also gets a negative rating due to the firm's heavier exposure to fee compression from its large active equity platform. That said, no one gets a positive rating, because for the most part pricing is kind of out of the hands of the US-based traditional asset managers. While Cohen & Steers has some leeway, given its focus on niche products, when we ask ourselves if any of these firms are offering anything differentiated enough that would allow them to get a better price than their peers or where price competition relative to passive products was not a major issue, we come up short. As such, we've given neutral ratings to BlackRock, T. Rowe Price, AllianceBernstein, and Cohen & Steers for Fee Pricing Power.

90 BLK - IVZ 75 - BEN TROW 60 - FHI 45 AMG AB 30 JHG 15 CNS – All Active Funds 0 - - All Passive Funds 4020 4022 4013 4014 4015 4016 4017 4018 4019 4021 4023

Exhibit 36 Annualized Realization Rates for Traditional US-Based Asset Manager Coverage — 2014-23 and First Half of 2024

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 37 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Fee Diversity & Exposure

We touched on this category a bit when we highlighted the diversification of the US-based traditional asset managers' AUM and revenue by asset class, geography, and distribution channel. Knowing the revenue contribution for a company's exposure by asset class, geography, and distribution channel allows us to better forecast firmwide revenue and profitability. And having a breakdown of revenue exposure by asset class is very useful during cyclical changes in the equity and credit markets, as it allows us to better assess the full impact of market drawdowns—like we saw during the equity and credit market dislocation in 2022-23. The same holds for knowing how much revenue managers generate from different geographic regions, as economic activity does not always correlate.

100 Alternatives/Other ■ Money Market 80 Fixed Income: Passive Fixed Income: Active 60 ■ Multi-Asset ■ Equity: Passive 40 ■ Equity: Active 20 0 **BLK** IVZ BEN TROW FHI AB **AMG** JHG CNS

 $\textbf{Exhibit 38} \ \, \text{Asset Class Revenue Contribution for Morningstar US-Based Asset Manager Coverage} \\ -\text{June 2024}$

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

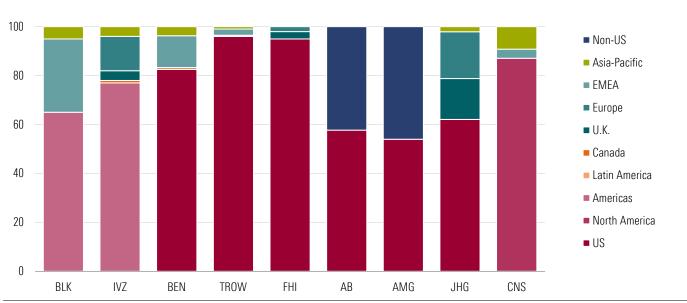


Exhibit 39 Geographic Revenue Contribution for Morningstar US-Based Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

And we should also note that large shifts in AUM by distribution channel can impact fee realization rates. For example, since institutional investors can often negotiate better fees associated with their mandates with the US-based traditional asset managers, and with their fees being among the lowest a manager can earn, so a big shift in business toward the institutional channel will have an adverse effect on fee realization rates. The opposite is true if a manager is picking up a significant amount of business in the retail or high net worth channels, which tend to carry meaningfully higher fees.

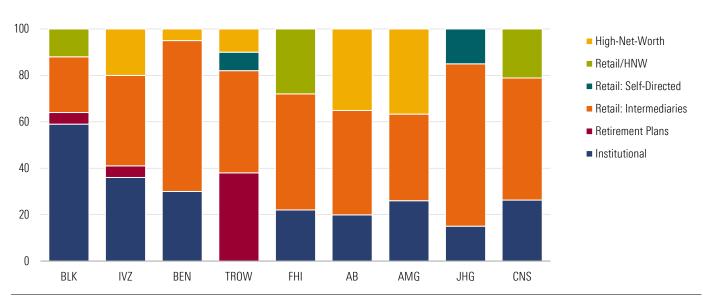


Exhibit 40 Distribution Channel Revenue Contribution for Morningstar US-Based Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

That said, on the retail front, we are also going to look at the percentage of each manager's share classes that are in low, below-average, average, above-average and high fee level distribution arrangements as tracked by Morningstar Direct, which provides us with a better sense of who might be at greater risk of fee pressure from the gatekeepers of platforms in the retail intermediary channel. The data we look at includes open-end mutual funds, but excludes ETFs, funds of funds and money market funds. Ultimately, we'd like to see a greater percentage of an asset manager's AUM in in share classes with low or below-average fees, which means they are less likely to need to make larger than average cuts in their fees each year to stay on broker/dealer and retail-advised networks.

Our long-standing belief had been that the strength of its active equity fund platform, as well as where the firm was already positioned on the fee spectrum, would leave it far less exposed to fee cuts than peers, but the big hit that the firm took to its reputation of generating top quartile investment performance during the 2022-23 equity and credit market dislocation has left it more exposed. That said, T. Rowe Price is still much better positioned than just about firm in the group, with Invesco, Franklin Resources, Federated Hermes, and AMG, in particular, having seen their base management fees decline more than the group average and actively managed funds overall the past couple of years in a large part because of where they have been positioned on the share class fee spectrum.

A recent study conducted by Ignites, which drew on adjusted expense ratios provided by Morningstar Direct, found that the highest average asset-weighted fees in the industry tended to be found at smaller US-based traditional active asset managers that are running active portfolios. Baron Capital Group (which had \$41 billion in total AUM and \$34 billion of monitored active open-end fund AUM at the end of June 2024) was found to be home to the most expensive active mutual funds, with an average asset-weighted expense ratio of 112 basis points. This was followed by Virtus (\$174 billion in total AUM and

\$46 billion of monitored active open-end fund AUM) at 102 basis points and Artisan Partners (\$159 billion in total AUM and \$66 billion of monitored active open-end fund AUM) at 100 basis points.⁴

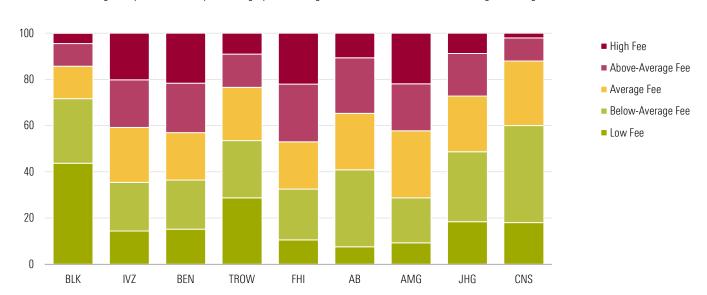


Exhibit 41 Percentage of Open-End AUM by Fee Category for Morningstar US-Based Traditional Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

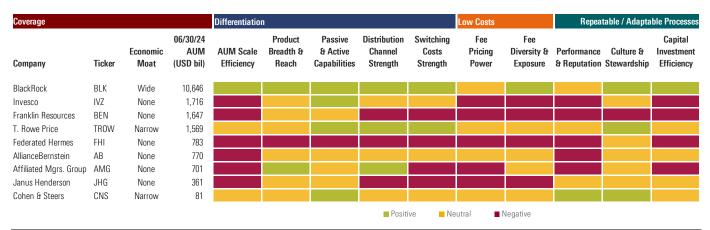
In fact, nine of the 10 firms that Ignites found with the highest adjusted expense ratios managed less than \$200 billion in monitored active open-end fund AUM, with the one exception being Invesco, which had \$1.7 trillion in total AUM and \$245 billion in active open-end fund AUM being monitored by Morningstar Direct at the end of June 2024, and an average asset-weighted expense ratio of 89 basis points. Cohen & Steers, which had \$81 billion in total AUM and \$33 billion in active open-end fund AUM being monitored by Morningstar Direct at the end of June 2024, was also highlighted in the top 10 firms with an average asset-weighted expense ratio of 84 basis points. That said, the company operates in a niche category focused on REITs, where adjusted expense ratios tend to run much higher and the performance generated by these funds tends to justify the fees being charged.

As we tend to give more weight to asset class revenue diversification and the position of each firm's share classes on the fee spectrum, these two areas are going to have a greater influence on the ratings we award for Fee Diversity & Exposure. Overall, we ended up giving the only positive rating to BlackRock, given the influence that its predominantly passive and institutionally distributed has on its fees, which tend to be far more stable and at the better end of the fee exposure spectrum. We went with negative ratings on Invesco, Franklin Resources, Federated Hermes, and Janus Henderson primarily because they were more exposed to fee compression in their asset class dispersion, as well as where their share classes are on the fee spectrum (although it should be noted that Janus Henderson was more in neutral than negative territory on that count). This left T. Rowe Price, AllianceBernstein, AMG,

⁴ Hall, Madison, The 100-Bp Bloc: Whose Fees Are Highest?, Ignites, Sept. 12, 2024.

and Cohen & Steers in neutral territory, with each of these firms seeing strength in one aspect of Fee Diversity & Exposure offset by weakness in another.

Exhibit 42 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

At the end of the day, though, our ratings were influenced by whether these firms offer anything differentiated enough in the diversification of their AUM and revenue by asset class, geography, and distribution channel that would insulate them from the fee compression afflicting the industry, as well as whether the mix of fees in their retail distributed fund share classes left them exposed to greater demands (from price cuts to higher placement fees) from the gatekeepers of the broker/dealer and retail-advised networks.

Investment Performance & Manager Reputation

In a business where past performance is not always a good indicator of future performance but can always be counted on to have some influence on fund flows, the underperformance we've seen from actively managed funds the past decade has not only had an impact on Manager Reputation for some of the US-based traditional asset managers but on their Fee Pricing Power. Given the importance that the gatekeepers for both institutional and retail-advised investors are placing on investment performance and fees, we expect Investment Performance and the Manager Reputation associated with a firm and/or its funds to remain extremely important attributes for the US-based traditional asset managers we cover.

We continue to believe there will always be room for active managers with good track records of investment performance built on reliable, repeatable investment processes. And we have historically seen firms with a history of above-average relative performance and solid processes being able to maintain slightly higher fee rates over time. Strong brands and reputations have been important attributes for the US-based traditional asset managers, as they tend to allow firms to not only attract investors to their funds but limit outflows during periods when performance falls below benchmarks or category averages. Managers with strong brand recognition have also been able to raise capital with greater ease via new investment strategies, vehicles, channels, or geographies. For example, Vanguard

was able to utilize its history of indexing, its commitment to low-cost investing, and strong brand recognition with passive investors to ramp up its US-based ETF operations from \$46 billion at the end of 2008 to \$856 billion at the end of 2018 and \$2.6 trillion at the end of June 2024.

Brand value in the traditional asset-management business tends to be influenced more by consistently positive performance and stable asset flows than heavier bouts of marketing and advertising. Once tarnished, though, brands in the asset-management business can be extremely difficult to revive, even with a string of solid investment performance on the part of the manager. The same is true of reputation, which once lost tends to be cemented in the minds of investors, making it all that more difficult for managers to regain the trust that had once allowed them to attract and retain assets with a minimal amount of effort. We saw this in the aftermath of the 2008-09 financial crisis, when both Legg Mason and AllianceBernstein saw their fixed-income and equity platforms, respectively, implode, which led to a big hit to their reputations and massive outflows form their funds.

15 -15 -30 Legg Mason Bond Outflows ■ AllianceBernstein Equity Outflows -45 1008 3008 1009 3009 1010 3011 1012 3015 3010 1011 3012 1013 3013 1014 3014 1015

Exhibit 43 Quarterly Outflows for Legg Mason and Alliance Bernstein — December 2007 to December 2015

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

At the time, we noted that when as asset manager like Legg Mason or AllianceBernstein loses the confidence of investors (especially institutional investors) it could take upward of seven years before flows turned positive, as they have to not only generate solid three- and five-year investment performance again but convince the gatekeepers for institutional clients and retail intermediaries that they can maintain those levels of performance going forward. In Legg Mason's case, the firm lost \$225 billion in fixed-income AUM to outflows from December 2007 through March 2014, before starting to generate positive flows on a consistent basis the next six years, which helped them to be acquired by Franklin Resources in 2020. With Legg Mason being part of the triumvirate of institutional bond managers that includes Pimco and BlackRock, it was hit especially hard with outflows during 2007-14 as those firms (and others) aggressively pursued their clients.

While AllianceBernstein's competition wasn't so concentrated, it lost more to outflows from its equity platform, bleeding \$321 billion in equity AUM predominantly from institutional accounts from December 2007 through March 2014. Outflows continued during 2014-15, with the firm finally starting to see positive flows from its equity platform on a more consistent basis in 2016. Oddly enough, the firm is now a more balanced asset manager, with 43% and 38% of its \$770 billion in AUM at the end of June 2024 in equity and fixed-income strategies, respectively. Compare this with the end of 2007, when 72% of AllianceBernstein's \$800 billion of AUM was invested in equity funds and 23% was in bond funds.

For firms to succeed on the passive side of the business, they need to not only have a solid track-record of index investing but the scale necessary to offer products at attractive price points. Performance for index-based products is based more on tracking difference than absolute performance. Most index funds and ETFs aim to track the performance of a particular index, with tracking difference being the discrepancy between the performance of an index fund/ETF and the performance of the index itself. It incorporates an entire range of management decisions—from securities lending to optimization decisions—that can inform the differences that might exist between the performance of the index and the investment returns of the index funds/ETFs aiming to track its performance.

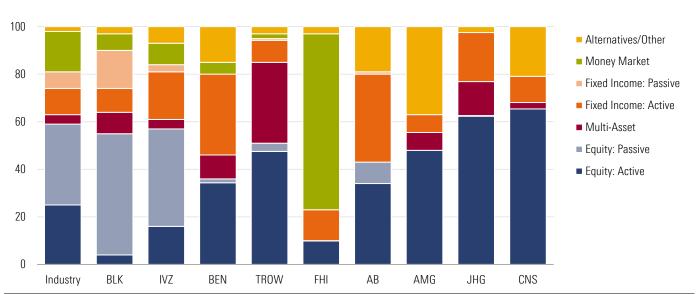


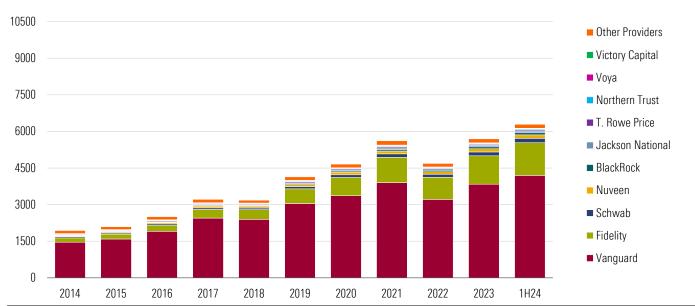
Exhibit 44 AUM Asset Class Exposure for Morningstar US-Based Traditional Asset Manager Coverage — June 2024

Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

While a handful of traditional asset-management firms in our US-based coverage — BlackRock, Invesco, and AllianceBernstein — have sizable index-based product segments in their portfolios, only BlackRock has a meaningful presence in the industry (despite Morningstar Direct picking up only \$87 billion of AUM in index funds at the end of June 2024). The firm managed nearly \$3.1 trillion in institutional index AUM, including \$87 billion in open-end index funds, at the end of the second quarter of 2024. Although this was still below the nearly \$4.2 trillion that we have Vanguard sourcing from its open-end index funds.

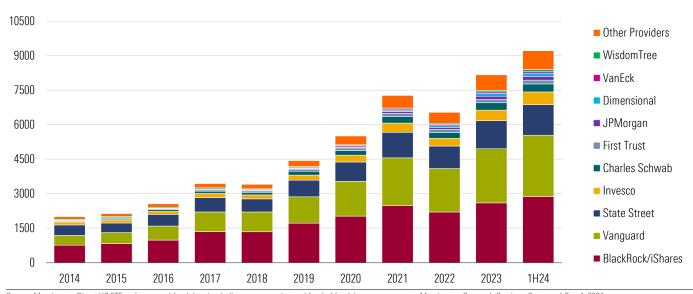
offerings (noting the company does not have a major presence in the institutional channel), it was more than enough for BlackRock to be competitive.

Exhibit 45 US-Based Index Fund Retail AUM (USD Billions) by Top 10 Market Participants — 2014-23 and First-Half 2024



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 46 US-Based ETF AUM (USD Billions) by Top 10 Market Participants — 2014-23 and First-Half 2024



Source: Morningstar Direct US ETF and open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

The same holds for the ETF industry, where BlackRock is the leading provider of funds—controlling 31% (32%) of the US (global) market—with only Invesco having a meaningful enough presence to leave a

mark—controlling 6% (5%) of the US (global) market at the end of June 2024. Some of the biggest US providers of index funds are also some of the largest providers of ETFs, with the five largest domestic ETF providers—BlackRock/iShares, Vanguard, State Street/SSgA, Invesco, and Schwab—accounting for 84% of the \$9.2 trillion that was invested in ETFs at the end of the second quarter of 2024.

That said, the top three players have come to dominate the market for core index-based ETF offerings in the US market, leaving other providers and any potential new entrants to focus more on niche products—like strategic beta and actively managed ETFs. During 2019-23, BlackRock/iShares, Vanguard, and State Street/SSgA picked nearly 70% of the net flows recorded for the US ETF market and closed out the second quarter of 2024 with 18 of the 20 largest ETFs. Only State Street/SSgA, which still has the largest ETF on the market—the SPDR S&P 500 ETF with \$541 billion in AUM at the end of June 2024—and Invesco—with its Invesco QQQ Trust, the fifth-largest ETF with \$287 billion in AUM—broke the top 20 list of ETFs in the US market at the end of the second quarter of 2024.

Exhibit 47 Top 10 ETFs in US Market by Size and Net Expense Ratio — June 2024

	Top 10 Largest ETF by AUM					Top 10 Lowest Expense Ratio ETFs					
Ticker	Fund Name	2024 AUM (USD bil)	% of US ETF Market	Net Expense Ratio (bps)	Ticker	Fund Name	2024 AUM (USD bil)	% of US ETF Market	Net Expense Ratio (bps)		
SPY	SPDR S&P 500	540.9	5.9	9	SPLG	SPDR Portfolio S&P 500	39.7	0.4	2		
IVV	iShares Core S&P 500	487.9	5.3	3	BBUS	JPMorgan BetaBuilders US Equity	3.4	0.0	2		
V00	Vanguard 500 Index	472.0	5.1	3	IVV	iShares Core S&P 500	487.9	5.3	3		
VTI	Vanguard Total Stock Market	408.5	4.5	3	VTI	Vanguard Total Stock Market	408.5	4.5	3		
000	Invesco QQQ Trust	286.6	3.1	20	AGG	iShares Core US Aggregate Bond	109.7	1.2	3		
VUG	Vanguard Growth	133.8	1.5	4	BND	Vanguard Total Bond Market	107.3	1.2	3		
VEA	Vanguard FTSE Developed Markets	132.2	1.4	6	SCHX	Schwab US Large-Cap	42.9	0.5	3		
IEFA	iShares Core MSCI EAFE	116.3	1.3	7	SCHB	Schwab US Broad Market	29.3	0.3	3		
VTV	Vanguard Value	115.8	1.3	4	SCHP	Schwab US TIPS	11.1	0.1	3		
AGG	iShares Core US Aggregate Bond	109.7	1.2	3	SCH0	Schwab Short-Term US Treasury	10.5	0.1	3		

Source: Morningstar Direct US ETF data, company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

As for active managers, we believe they will need to have reliable, repeatable investment processes that yield solid performance overall, offered at reasonable price points (relative to both passive offerings and their own peers) to be successful longer term. Poor relative investment performance has been a problem for most active managers of Large-Cap US Equity funds, which as we noted previously account for 84% of the equity investment funds that Morningstar Direct monitors, as well as most of the equity assets managed by the nine US-based traditional asset-management firms we cover.

Exhibit 48 Morningstar US Active/Passive Barometer: Active Funds' Success Rate Percentage by Fund Category — December 2023

Category	1-Year	1-Year 3-Year		10-Year		
				Overall	Lowest Cost	Highest Cost
US Large Blend	46.8	39.5	30.7	12.7	18.6	9.3
US Large Value	49.1	34.3	34.5	12.2	16.7	13.1
US Large Growth	53.2	35.7	25.6	11.2	14.6	3.4
US Mid Blend	48.7	57.8	37.0	15.2	22.7	4.3
US Mid Value	45.4	30.2	45.9	7.5	5.3	0.0
US Mid Growth	33.6	43.4	55.6	38.9	38.1	29.5
US Small Blend	57.1	55.7	44.2	25.5	35.1	30.0
US Small Value	34.3	38.8	41.0	25.0	33.3	28.6
US Small Growth	30.1	33.3	51.5	41.3	50.0	40.5

Source: Morningstar US Active/Passive Barometer — Year-End 2023.

While some managers argue that comparing active US Equity fund performance against benchmarks like the S&P 500 Index is not ideal, as benchmarks do not charge fees and do not have to maintain a certain percentage of holdings in cash to meet investor redemptions, active managers of US Equity funds still come up short when compared with actual fee-paying passive funds tracking the benchmarks for their categories. Morningstar's US Active/Passive Barometer allows us to assess the performance of US active fund managers against their passive peers within their respective Morningstar categories. By looking at active managers' performance relative to actual net-of-fee performance of comparable passive funds, we get a much clearer picture of how active fund managers have performed.

As we noted earlier in this report, at the end of 2023, the Morningstar US Active/Passive Barometer demonstrated that active large-cap US Equity managers continue to struggle to beat their benchmarks on a one-, three-, five- and 10-year basis. Additionally, long-run success rates across actively managed large-cap US Equity funds have been generally lower than those among mid- and small-cap US Equity funds. Even so, less than 58%, 56%, and 42% of the active funds in each of the nine Morningstar equity categories represented in the Morningstar Style Box outperformed their category's fee-paying passive options over the past three-, five-, and 10-year periods through the end of 2023. At this point, actively managed US Equity funds have become synonymous with underperformance.

But we can't just paint everyone with that brush; we need to take a closer look at fund performance of each of the firms we cover to see if we are missing any positives, focusing on: Morningstar's overall fund rating for the firm (as well as the percentage of fund assets with 4- and 5-star ratings the past three and five years; each firm's three- and five-year investment performance relative to benchmarks (usually reported by the asset managers themselves with varying degrees of detail); and, each firm's three- and five-year risk-adjusted Morningstar Active Fund Success Ratio, which measures the potential for a firm's funds to generate peer-beating returns over the long run.

100 ■ 5-Star ■ 4Star 80 ■ 3-Star 2-Star 60 ■ 1-Star Null 40 20 BLK IVZ BEN **TROW** FHI AB AMG JHG CNS Industry

Exhibit 49 Percentage of Open-End AUM by Average Morningstar Rating (Past Three-/Five-Years) for US-Based Asset Manager Coverage and Industry

Source: Morningstar Direct US open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Exhibit 50 Average Fund Rating, Percent of Funds Rated 4/5 Stars (Past Three-/Five-Years) for US-Based Coverage

Company Name	Ticker	Firm Average Morningstar Fund Rating	% of Assets Rated 4- or 5-Stars (3-Year)	% of Assets Rated 4- or 5-Stars (5-Year)
BlackRock	BLK	3.20	35.0	39.5
Invesco	IVZ	3.01	55.3	52.6
Franklin Resources	BEN	3.09	46.3	25.5
T. Rowe Price	TROW	3.35	37.9	30.4
Federated Hermes	FII	3.05	28.4	39.0
AllianceBernstein	AB	3.05	5.7	36.3
Affiliated Managers Group	AMG	3.18	21.2	45.8
Janus Henderson	JHG	3.35	54.2	50.3
Cohen & Steers	CNS	3.70	69.4	74.0
Group Average		3.22	39.3	43.7
Group Median		3.18	37.9	39.5
Industry Average		3.06	38.2	39.4
Industry Median		3.07	30.4	29.2

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Morningstar rates funds from 1 to 5 stars based on how well they've performed (after adjusting for risk and accounting for sales charges) in comparison with similar funds. Within each Morningstar Category, the top 10% of funds receive 5 stars and the bottom 10% receive 1 star. Funds are rated over three time periods (three, five, and 10 years) and these ratings are combined to produce an overall rating. When

looked at by this measure (and averaging three- and five-year results), Cohen & Steers looks to be the best positioned, with 72% of its Morningstar-rated funds garnering either a 4- or 5-star rating.

Invesco and Janus Henderson also fared well at 54% and 52%, respectively, while the rest of the group all fell below the industry average of 39%, with Federated Hermes having the worst showing with 21%. If we look at Morningstar's current overall fund rating for each of these firms, as well as the percentage of each firm's fund assets with 4- and 5-star ratings during the past three and five-year periods, Cohen & Steers appear to be more competitively advantaged, while the positioning of Federated Hermes and AllianceBernstein appears to be more suspect.

To garner a more robust picture of the positioning of each asset manager, we overlay their three- and five-year investment performance relative to benchmarks (usually reported by the managers themselves with varying degrees of detail for performance by asset class categories) on our Morningstar ratings. Where possible, we are looking at not only the most recent performance of the asset managers, but also their historical track record to get a better sense of how performance is moving directionally.

Exhibit 51 Percentage of AUM in Outperforming Strategies by Asset Class for Morningstar Coverage—June 2024



Source: Morningstar Direct US open-end fund data (excluding money market and fund of funds), company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

We focus more on three- and five-year investment performance figures because these are the periods most institutional and retail-advised gatekeepers prioritize when making investment decisions. While one-year investment performance can have an outsize influence on retail flows, it is not indicative of a firm's competitive positioning with its funds. When looked at by this measure, Cohen & Steers looks to be the best positioned on the equity side of things, with 96% and 97% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of June 2024.

While BlackRock is the clear winner on the fixed-income side of the business, with 79% and 85% of its active bond-fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, Janus Henderson seems to be holding its own with 72% and 83% outperforming on a three- and five-year basis, respectively. That said, these two firms have posted less robust equity performance, no doubt influenced by the equity market downturn during the 2022-23 equity and credit market dislocation, with BlackRock seeing 44% and 78% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of June 2024, while Janus Henderson reported 53% and 54% outperforming on a three- and five-year basis, respectively, at the end of the second quarter.

AllianceBernstein is the next best positioned firm in our coverage, with 65% and 64% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of June 2024, with 68% and 60% of its active bond-fund AUM also outperforming. This leaves the rest of our coverage in mediocre to poor territory from an investment performance perspective, with T. Rowe Price's decline from posting both equity and fixed-income investment performance that was consistently in the upper quartile on a three- and five-year basis being the most startling. Federated Hermes has been left out of this segment because the firm no longer reports the percentage of equity and bond-fund AUM that is outperforming on a quarterly basis, which we need to make a valid assessment of its performance.

Once we've compiled the star ratings data, as well as each firm's three- and five-year investment performance relative to benchmarks, we adjust our Fund Performance & Manager Reputation rankings for each manager's three- and five-year risk-adjusted Morningstar Active Fund Success Ratio (which measures the potential for a firm's funds to generate peer-beating returns over the long run) and the percentage of each firm's AUM that has Medalist Ratings, with Gold-, Silver-, or Bronze-rated funds (which are expected to perform better over time when compared with similar investments).

Exhibit 52 Firm Success Ratio and Risk-Adjusted Firm Success Ratio (%) for Morningstar US-Based Asset Manager Coverage — June 2024

	3-Year		5-Y	ear	10-Year	
Fund Family	Success Ratio	Risk Adjusted	Success Ratio	Risk Adjusted	Success Ratio	Risk Adjusted
BlackRock	52.0	50.0	49.0	46.0	46.0	42.0
Invesco	43.0	43.0	33.0	28.0	36.0	31.0
Franklin Resources	53.0	49.0	41.0	38.0	31.0	27.0
T. Rowe Price	51.0	54.0	47.0	51.0	66.0	68.0
Federated Hermes	47.0	42.0	51.0	46.0	39.0	38.0
AllianceBernstein	42.0	40.0	40.0	35.0	42.0	41.0
Affiliated Managers Group	35.2	42.7	28.0	29.8	25.0	28.0
Janus Henderson	50.0	52.0	45.0	47.0	37.0	43.0
Cohen & Steers	73.0	67.0	55.0	64.0	58.0	58.0

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Morningstar calculates two different success ratios—the Morningstar Success Ratio and the Morningstar Risk-Adjusted Success Ratio—over three-, five-, and 10-year periods, with the former considering each fund's category rank based on total return and the latter looking at a fund's category

rank based on Morningstar Risk-Adjusted Return. The higher the Success Ratio, the greater chance that investors will see long-term peer-beating returns. By this measure, Cohen & Steers is the only clear winner among the nine US-based traditional asset managers we cover, with its three- and five-year Risk Adjusted Success Ratios of 67.0 and 64.0, respectively, being much better than the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). Meanwhile, Invesco, AllianceBernstein, and AMG all come across as clear losers, with each firm's Success Ratios falling well below the group average (median). This would leave BlackRock, Franklin Resources, T. Rowe Price, Federated Hermes, and Janus Henderson in more-neutral territory.

Much as we noted above with the trend of T. Rowe Price's equity and fixed-income investment performance on a three- and five-year basis, was the decline in the firm's three- and five-year Risk Adjusted Success Ratios, which had been 75.0 and 75.0, respectively, at the end of 2018, compared with a group average (median) of 49.7 (48.7) and 48.3 (48.6) and an industry average (median) of 47.0 (45.0) and 46.5 (44.0). The company's ability to consistently deliver industry leading performance with less volatility than its peers had historically left its investment performance in the top quartile (if not top decile) of fund managers when looking at Firm Success Ratios and Risk-Adjusted Firm Success Ratios over time, so this has been a big comedown for T. Rowe Price.

Exhibit 53 Firm Success Ratio and Risk-Adjusted Firm Success Ratio (%) for Morningstar US-Based Asset Manager Coverage — December 2018

	3-Year		5-Year		10-Year	
Fund Family	Success Ratio	Risk Adjusted	Success Ratio	Risk Adjusted	Success Ratio	Risk Adjusted
T. Rowe Price	75.0	75.0	76.0	75.0	77.0	75.0
BlackRock	55.0	54.0	53.0	53.0	33.0	33.0
Cohen & Steers	62.0	62.0	58.0	58.0	40.0	30.0
Affiliated Managers Group	50.1	49.4	52.8	51.2	36.8	42.8
Franklin Resources	37.0	43.0	26.0	37.0	37.0	45.0
Invesco	50.0	48.0	47.0	46.0	35.0	33.0
Janus Henderson	41.0	45.0	56.0	62.0	36.0	36.0
AllianceBernstein	46.0	45.0	40.0	38.0	33.0	34.0
Federated Investors	42.0	40.0	38.0	40.0	30.0	31.0

Source: Company reports, Morningstar Research Services, Data as of Oct. 4, 2024.

Strong brands and reputations have always been important attributes for the US-based traditional asset managers, as they tend to allow firms to not only attract investors to their funds but limit outflows during periods when performance falls below benchmarks and category averages. Managers with strong brand recognition have also been able to raise capital with greater ease via new investment strategies, vehicles, channels, or geographies. That said, these tend to be more subjective in nature. While we could look at surveys, like Peregrine's Global 100 IMC Ranking, the top 10 firms on that list—Vanguard, Fidelity, BlackRock, Invesco, T. Rowe Price, State Street/SSgA, Capital Group, Nuveen, Schroeders, and Blackstone—read like a who's who of the largest global asset managers, with their scale and resources available to market heavily behind their brands making them more visible. ⁵ But

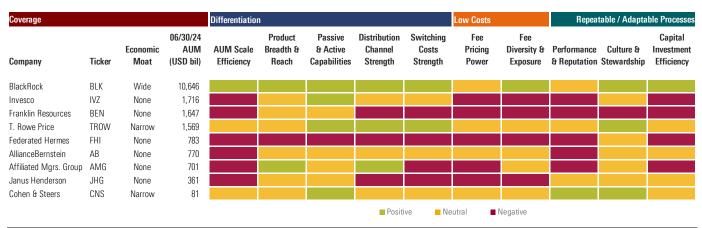
⁵ Peregrine Communications, The Global 100 Asset Management Marketing Report, Peregrine Communications, April 2024

brand and reputation is more than just a brand score, as rankings like this do little to drive sales or keep assets in place once they've come in the door. A lot of that has to do with price and performance, which is why we tether manager reputation to investment performance in our moat assessments.

As we tend to give more weight to investment performance—looking at Morningstar's overall fund ratings and the percentage of fund assets with 4- and 5-star ratings the past three and five years, each firm's three- and five-year investment performance relative to benchmarks, and each firm's three- and five-year risk-adjusted Morningstar Active Fund Success Ratios—than manager reputation, our ratings for Investment Performance & Manager Reputation are going to reflect that. Overall, we ended up giving the only positive rating to Cohen & Steers, which continues to generate solid performance, even with the negative impact that rising/higher short-term rate has had on its REIT-centric portfolios.

We gave neutral ratings to BlackRock, T. Rowe Price, and Janus Henderson. BlackRock is obvious given its middle-of-the-road investment performance and stellar manager reputation. T. Rowe Price was more of a mixed bag, scoring just well enough for a neutral rating on an investment performance basis, with its manager reputation score sealing the rating. And Janus Henderson was just mediocre enough across the spectrum of assessment segments to come away with a neutral rating. As for the rest of the group, we went with negative ratings on Invesco, Franklin Resources, Federated Hermes, AllianceBernstein, and AMG, most of which scored below average on the investment performance front.

Exhibit 54 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

While Franklin scored well enough for a neutral rating on an investment performance basis, we're concerned with the hit that their reputation will take because of recent events at Western Asset Management, its main fixed-income manager (acquired as part of the Legg Mason deal in 2020). Western recently received a Wells Notice related to trading activity of Ken Leech, the fixed-income manager's co-chief investment officer (who has been placed on a leave of absence). Following the receipt of the notice, Franklin closed Western's Macro Opportunities Strategy fund, which Leech was running and had around \$2.0 billion in AUM at the end July 2024. At this point, it looks like there were

multiple accounts in question on Western's platform, with Franklin's own internal investigation highlighting 17,000 trades during 2021-23, so there will likely be more issues. This will not only be damaging to Western's reputation but will lead to outflows.

Manager departures like we've seen at the bond shop—with another key leader, John Bellows, abruptly leaving the firm in May 2024—as well as the "shroud of wrongdoing" that hangs over Western from the Wells Notice, will lead to a loss of confidence for the fixed-income firm, which caters primarily to institutional investors known to depart relationships following key personnel departures or regulator investigations. Even worse, history has shown us that once an asset manager loses the trust of institutional investors due to periods of poor performance or reputational issues, it can take upward of seven years to win that business back as these investors are looking for solid three- and five-year performance that they trust will be consistent going forward. Western went through a phase like this after the 2008-09 financial crisis when poor bond-fund performance led to seven years of outflows.

Culture & Stewardship

Better cultures and internal investment processes tend to lead to better and more consistent investment performance, organic growth, and relatively little employee turnover. For this category, we assess the US-based traditional asset managers—the Analyst Parent Rating awarded by the manager research group and the Capital Allocation Rating conferred by the equity research group—as well as our own assessment of how adaptable we think each firm's business model would be in an environment that we expect to continue to get more competitive over time. The Parent Rating represents Morningstar's assessment of the stewardship quality of an asset-management firm. The manager research group at Morningstar considers data points such as manager retention, fees, and a firm's historical performance to arrive at Parent Ratings of High, Above Average, Average, Below Average, or Low.

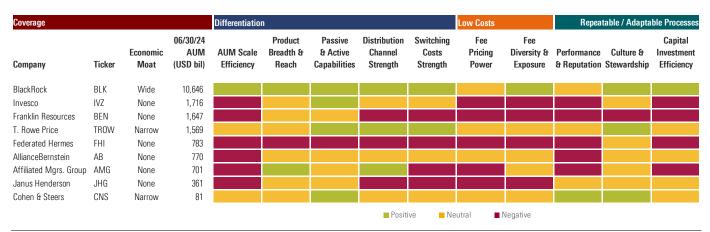
While our Capital Allocation Rating assesses firms in three key areas—balance sheet health, investment efficacy, and shareholder distributions—our focus here will be more on balance sheet health and shareholder distributions, leaving investment efficacy to the Capital Investment Efficiency rating. Given that a firm's financial health directly affects its ability to invest in future growth opportunities, return cash to shareholders, or even remain a going concern, it is important to pay attention to its balance sheet strength. Asset managers have a high degree of revenue cyclicality and operating leverage (with results tending to be affected by movements in the equity and credit markets) and are generally assetlight. As such, they should not have more than low to moderate levels of financial leverage.

On the distribution front, we're assessing both the appropriate amount that a firm should be returning to shareholders and the more ideal form of payment to shareholders—share repurchases or dividends. For repurchases, we consider the proportion of future free cash flow directed to repurchases and if they're likely to be undertaken at either a significant discount or premium to our fair value estimate. As for dividends, we're looking to see if payouts are appropriate given forecast cash flows, as well as likely balance sheet needs and value-adding investment opportunities. While this does trample a bit on Capital Investment Efficiency, our aim here is to see if a firm's culture and internal processes are aligned

with the needs of the business so that they can prudently adapt their cultures and processes to an evolving competitive landscape over time.

Looking at our coverage, we've given positive ratings to BlackRock, T. Rowe Price, and Cohen & Steers because they have the highest Parent Ratings in the group, have sound balance sheets, and have shown a penchant for getting shareholder distributions right. As for the rest of the group, all of them but Franklin Resources have been rated neutral, driven by their average Parent Ratings, sound balance sheets, and mixed track records on shareholder distributions.

Exhibit 55 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Capital Investment Efficiency

In this segment, we assess a firm's business reinvestment and acquisition track record. When growth becomes harder to come by, we expect the US-based traditional asset managers to take a variety of actions—including overhauling their leadership or investment processes, buying a competitor with better performance or greater products, channel or geographic diversity, or branching out more aggressively into passive or strategic-beta strategies—and want to ensure that both management, and the organization overall, can tackle the challenge at hand. In general, we look positively on firms whose past actions have enhanced their economic moats and have the capital and the wherewithal to continue to maintain their leadership positions, while looking skeptically on firms that continue to work on repairing serious deficiencies in their structures and/or lack the capital and wherewithal to maintain an economic moat (let alone defend their existing moat if they have one) longer term.

Looking at our coverage, we've given a positive rating to BlackRock alone, as the company has not only done an exceptional job of defending its economic moat but in investing for the future. In an industry where acquisitions have not always worked, the firm has overseen two major deals, and a spattering of bolt-on acquisitions, which not only added to BlackRock's product lineup but expanded its footprint into other channels and markets. A major reason BlackRock has had success with acquisitions where so many others have failed is that CEO Larry Fink has always insisted on one culture for the firm, which has

been reflected in the level and consistency of the company's investment performance, its rate of organic growth, its focus on risk management, and level of employee turnover. The company also generated more free cash flow than the rest of the group combined the past five years and is expected to double its spread over the nine other US-based traditional asset managers the next five years.

Another key differentiator for BlackRock has been its commitment to risk management, product innovation, and advice-driven solutions. Having been principally focused on institutional investors for much of its existence, BlackRock has been concerned not only with investment performance but with the risks taken to generate those results, as most of its institutional clients come to the table with required levels of performance and volatility in their investment mandates. As such, the company has developed tools—embedded in its Aladdin enterprise system—to assess both security- and portfolio-level risks, which it not only uses internally but also offers to external clients for a fee. This commitment to technology has also enhanced the firm's ability to roll out new products and to combine existing products to create outcome-based investment offerings.

While these structural attributes have been big pluses for the firm, we believe BlackRock's insistence on one common culture, focused on one common vision, operating on one common platform has also provided the firm with a leg up over its peers. Although it is easy to dismiss culture as something that cannot be measured, we believe that over the long run asset managers with a single corporate culture dedicated to a common purpose (which is ultimately reflected in the consistency of their investment performance, their rate of organic growth, the focus and importance that is placed on risk management, and the amount of employee turnover they experience) tend to perform better than companies that are operating with less cohesive and/or inconsistent organizations.

As for the rest of the group, we've given T. Rowe Price, AllianceBernstein, Janus Henderson, and Cohen & Steers neutral ratings, as they've all taken different actions to enhance their competitive positioning but weren't always successful, and in a couple of cases continue to work on repairing deficiencies in their structures. T. Rowe Price's ongoing efforts to enhance the company's competitive positioning has had the firm looking to build additional scale through new investment products and starting a separate US investment adviser subsidiary with its own dedicated research platform, as well as expanding the reach of its business by further penetrating domestic distribution channels and moving into non-US markets (especially emerging and developing economies), and investing in technology and business transformation aimed at improving client experiences and delivering operating efficiencies.

T. Rowe Price's 2021 acquisition of alternative asset manager Oak Hill Advisors might run contrary to the firm's history of preferring to grow organically, but the flow headwinds that the firm will continue to face over the next decade as baby boomer rollovers affect organic AUM growth in the retirement channel, and the need to diversify its existing portfolio to include products that are less at risk of fee compression from low-cost index-based products, makes the move into alternatives a logical move. While Cohen & Steers has been light on the acquisition front, we look favorably on the firm's fomenting of a private real estate investment strategy to be more competitive with private real estate investment vehicles offered by alternative asset managers and other traditional asset managers, even if it increases ongoing

operating costs. That said, the company will face stiff competition in this part of the market, given that the incumbents have not only increased their share of the institutional market but have made major headwinds in the retail-advised channel, especially with high-net-worth investors.

AllianceBernstein has been a story of slow gradual improvements in its Capital Investment Efficiency rating, maintaining a continuous and rigorous focus on expense management (including relocating the company's corporate headquarters to Nashville from New York City) with the main goal being to generate profitable growth on a more consistent basis. More recently, the firm has been focused on delivering differentiated return streams to AB's clients (believing that, over time, the ability to produce idiosyncratic returns that cannot be easily replicated will prove the firm with a competitive advantage), commercializing and scaling up AB's suite of services (including carving out the Sanford Bernstein research group in a joint venture with Société Générale that is expected to grow the contribution from global equities), and maintaining its rigorous focus on expense management.

As for Janus Henderson, the firm's long-term strategy has been focused on investing in the business, maintaining financial strength and flexibility, returning a substantial portion of earnings to shareholders as share repurchases and dividends, and (when it makes sense) acquiring businesses that fill either a product or distribution hole. As such, we were encouraged by Janus Henderson's recent move to take a 55% stake in (with a defined path for the firm to acquire 100% of) Victory Park Capital Advisors, a global private credit manager with around \$6 billion in AUM. The company's push into alternatives is not all that surprising, as it highlights the drive on the part of most of the traditional active asset managers to find ways to offset the pressures coming from low-cost index-based products, especially in the large-cap equity category (which makes up more than half of the firm's AUM).

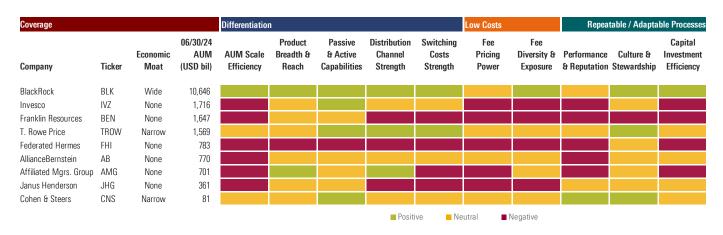
With respect to the rest of our coverage, Invesco, Franklin Resources, Federated Hermes, and AMG all received negative ratings, as most of them continue to work on repairing serious deficiencies in their structures, and some lack the capital and wherewithal to maintain an economic moat, given all the headwinds the industry is facing. While Invesco has been willing to make moves aimed at effecting change over the past decade, we've been disappointed by some of the results, as better performance and organic growth have not always translated into meaningful and/or maintainable improvements in profitability. Franklin, on the other hand, has historically had the capital required to effect change but has been lackluster about attacking deficiencies in its operations. While we've been encouraged by current management's willingness to shake things up, meaningful changes in research and investment processes and subsequent improvements in investment performance will take time.

In Federated Hermes' case, the company has not been shy about using acquisitions, including deals aimed at consolidating money market fund assets and expanding its equity and fixed-income operations, the latter of which management believes is critical for diversifying the firm's asset base and revenue away from money market funds. That said, while the fixed-income investment group is centralized and well-organized, the equity side of the business is fragmented and doesn't have a unified approach, which has kept Federated from finding a productive way to combine its home-grown equity efforts with its acquisitions. The company's acquisition activity has also been highly dependent on the cash thrown

off by its money market operations, which have been hamstrung at times the past two decades by the need to offer fee waivers to offset negative yields on some of its money market funds (as historically low interest rates left the expenses associated with running these funds higher than the returns they could generate). Even so, we view the company's investment activity as being fair as opposed to poor.

Unlike most of the other US-based traditional asset managers, AMG's business model is focused on acquiring a 50%-60% stake in small and midsize boutique asset managers as opposed to rolling them up into their own operations. This arrangement leaves the running of these boutique asset managers with the selling managers, as well as enough equity with these managers to hopefully keep them motivated. New investments, which are the most accretive way to deploy capital, tend to be lumpy in nature and are influenced as much by the state of the markets as they are by the willingness of boutique asset managers to sell stakes in their operations. Over the past two decades, AMG has focused on boutique managers operating in faster growing investments niches—like global and international markets and alternative assets—but it has also made larger forays into US equities, picking up active equity managers like Yacktman (2012) and Parnassus (2021). But the firm's strategy has left it with little control over its affiliates, with poor investment performance across its platform, greater competition from private capital funds, and higher operating costs have made some of these deals look less attractive.

Exhibit 56 Economic Moat Heat Map for US-Based Traditional Asset Managers Covered by Morningstar



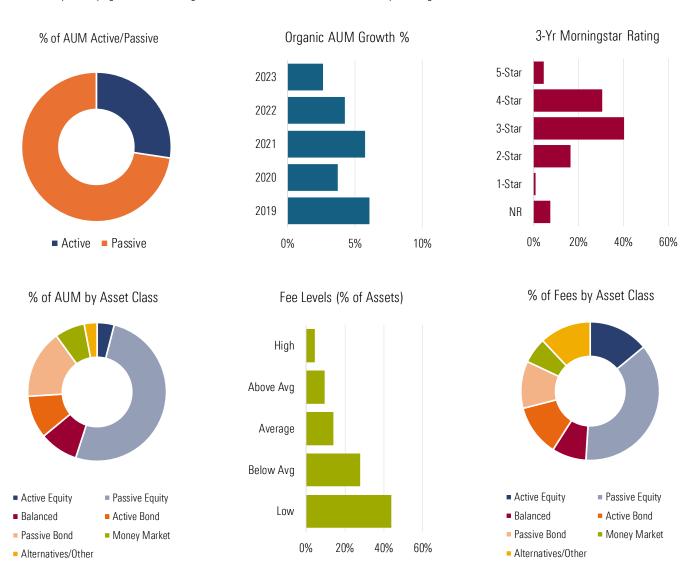
Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

For investors in the US-based traditional asset managers publicly traded asset managers, it pays to stick with high-quality wide-moat firms, which at this point would only be BlackRock. For an industry that is so heavily tied to the vagaries of the equity and credit markets, firms that have generated consistent levels of above-average organic AUM growth and above-average adjusted operating profitability over various market cycles have generally been rewarded. While T. Rowe Price and Cohen & Steers fall short of BlackRock's pace, they are still well above the rest of the group to warrant their narrow moat ratings.

BlackRock: We Maintain Our Wide Moat Rating on This Industry Stalwart

We've maintained out wide economic moat rating for BlackRock after reassessing the firm's qualitative and quantitative attributes. Unlike most of its peers, BlackRock is at its core a passive investment shop, offsetting many of the secular headwinds facing the US-based traditional asset managers with a few tailwinds of its own. Through its iShares exchange-traded fund platform and institutional index fund offerings, the wide-moat firm sources close to two thirds of its AUM (and more than half its base management fees) from passive products. In an environment where retail-advised and institutional clients are seeking out providers of passive products, as well as active asset managers that have greater scale, established brands, solid long-term performance, and reasonable fees, we believe BlackRock is well-positioned, with a wide moat built on cost advantage, switching costs, and intangible assets.

Exhibit 57 Key Identifying Details and Ratings for BlackRock's Product Portfolio Covered by Morningstar — June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? BlackRock's size and scale, the strength of its brands, and the diversity of its AUM by investment strategy, asset class, distribution channel, and geographic reach provide it with a leg up over peers. The company is the largest asset manager in the world, overseeing \$10.696 trillion in AUM at the end of June 2024, with a product mix that is diverse—with 55% of AUM (51% of base management fees) in equity strategies, 26% (23%) in fixed-income offerings, 9% (8%) in balanced funds, 7% (6%) in money market funds, and 3% (12%) in alternatives. Passive strategies make up two thirds of long-term AUM, with the company's ETF platform, which accounts for 35% of managed assets (and 40% of base fees) maintaining a leading market share both domestically (31%) and globally (32%) at the end of June 2024.

Product distribution is weighted more heavily toward institutional clients, which account for around 80% of AUM. BlackRock remains geographically diverse as well, with clients in more than 100 countries and more than a third of its AUM coming from investors domiciled outside of the US and Canada. While the firm does not release redemption/retention data for its AUM, we think that these attributes and the company's other "intangible assets" have allowed BlackRock to generate above average levels of organic AUM growth (which is derived from products sales and investor redemptions) on a more consistent basis. All of which informs our positive ratings for Product Breadth & Geographic Reach, Passive & Active Capabilities, Distribution Channel Strength, and Switching Costs Strength.

Is the Firm Cost-Competitive with Limited Exposure to the Growth of Low-Cost Passive Products? BlackRock has close to three quarters of its observed share classes with fees in the low to below average range, which is what we like to see given the heavier presence of active funds in this mix, leaving the firm exposed to ongoing fee compression—especially in the retail channel where the US-based traditional asset managers are feeling more pressure to make concessions to maintain shelf placement. The size and scale of BlackRock's passive operations—\$3.9 trillion in its ETF/iShares business and \$3.3 trillion in the company's institutional equity index operations at the end of June 2024—provide it with a cost advantage in a part of the industry where scale is essential to being able to offer products at much lower price points while still generating industry-level (or higher) operating margins. The company also oversees some \$2.7 trillion in active AUM and had \$778 billion in money market AUM at the end of the second quarter of 2024.

BlackRock's most comparable peer is Vanguard, which had \$8.6 trillion in US-based AUM at the end of June 2024—composed of \$1.8 trillion in active open-end fund and ETF AUM, \$4.2 trillion in index fund AUM, and \$2.7 trillion in passive ETF AUM. The firm, much like BlackRock, has the size and scale, the brand strength, and the diversity of its AUM by investment strategy and asset class to make it a fierce competitor. Vanguard's being structured as a mutually owned organization has historically allowed the firm to be far more aggressive on pricing, but it seems like the revolving door at the company's executive suite combined the firm's need to retain capital to invest in its operations has made the firm far less aggressive on the fee front the past several years. We also suspect that the maturation of organic AUM growth in the US ETF market on the equity side of things has reduced the returns firms were getting on price-cutting efforts, and it looks like the bond ETF market needs more scale to justify price cuts.

Ultimately, when we asked ourselves if BlackRock has anything differentiated enough in its products and services that would allow the firm to get a better price than their peers or allow them to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—our conclusion was that they did, which informs our neutral rating for Fee Pricing Power and positive rating for Fee Diversity & Exposure.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given BlackRock's heavier reliance on passive strategies, tracking error is a bigger consideration when looking at performance. Most index funds and ETFs strive to mimic the performance of a particular index, with their tracking difference being the discrepancy between the performance of the index fund/ETF and the performance of the index itself. It incorporates an entire range of management decisions—from securities lending to optimization decisions—to explain any tracking error. At the end of the second quarter of 2024, BlackRock had 98%, 100%, and 100% of its passive equity AUM within or above applicable tolerances on a one-, three-, and five-year basis, respectively. As for its bond operations, the firm had 95%, 100%, and 100% of its passive fixed-income AUM within or above applicable tolerances on a one-, three-, and five-year basis, respectively. BlackRock relies on highly repeatable investment processes in its passive operations. The firm's commitment to risk management, product innovation, and advice-driven solutions has been another driver of its investment processes in its passive business.

As for its active operations, BlackRock's current firmwide Morningstar Rating of 3.20 stars is on par with the group average of 3.22 stars and better than the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 31% and 4% of its open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were only marginally better, with 38% and 1% of open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry. Focusing on reported performance relative to benchmarks and/or peers, the firm looks better, with 79% and 85% of its active bond-fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, and 44% and 78% of its active equity fund AUM outperforming. With its roots in fixed-income management, three- and five-year performance for BlackRock's active bond funds have generally been in the upper quartile. The company's active equity performance has been a bit more mixed but had improved meaningfully enough to drive consistently positive flows during 2019-21. That all fell apart, though, during the 2022-23 equity and credit market dislocation.

As for the company's Success Ratios, three- and five-year Risk Adjusted Success Ratios of 50.0 and 46.0, respectively, were on par with the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). These results were also more in line with Janus Henderson and T. Rowe Price—both of which received neutral ratings for Investment Performance & Manager Reputation. With investors less willing to pay up for products or solutions when they believe the performance and investment outcomes do not justify the fees, the impetus is on active managers to improve the disparity that exists between their performance and that of their benchmarks.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency?

A key differentiator for BlackRock has been its commitment to risk management, product innovation, and advice-driven solutions. Having been principally focused on institutional investors for much of its existence, BlackRock has been concerned not only with investment performance but with the risks taken to generate results, as most of its institutional clients come to the table with required levels of performance and volatility in their investment mandates. As such, the company has developed tools embedded in its Aladdin enterprise system—to assess both security- and portfolio-level risks, which it not only uses internally but offers to external clients for a fee. This commitment to technology has also enhanced the firm's ability to roll out new products and create outcome-based investment offerings. While these structural attributes have been big pluses for the firm, we believe BlackRock's insistence on one common culture, focused on one common vision, operating on one common platform has also provided the firm with a leg up over its peers. Although it is easy to dismiss culture as something that cannot be measured, we believe that over the long run asset managers with a single corporate culture dedicated to a common purpose (which is ultimately reflected in the consistency of their investment performance, their rate of organic growth, the focus and importance that is placed on risk management, and the amount of employee turnover they experience) tend to perform better than companies that are operating with less cohesive and/or inconsistent organizations.

In BlackRock's case, we think the company has done an exceptional job of not only defending its wide economic moat but in investing for the future. In an industry where acquisitions have not always worked, the firm has overseen two major deals and a spattering of bolt-on acquisitions, which not only added to BlackRock's product lineup but expanded its footprint into other channels and markets. A major reason BlackRock has had success with acquisitions where so many others have failed is that CEO Larry Fink has insisted on one culture for the firm, which has been reflected in the level and consistency of the company's investment performance, its rate of organic growth, its focus on risk management, and level of employee turnover. As such, it should come as no surprise to see that we've left our positive ratings for Culture & Stewardship and Capital Investment Efficiency in place for BlackRock.

What Are the Key Points Against a Wide Moat Rating?

While BlackRock will likely diminish into narrow moat territory over time, we're not quite there yet. Although there are plenty of intangible assets within BlackRock's structure and product offerings to support the switching costs inherent in the industry, it is cost advantage that truly cements the firm's wide moat. Historically, we've not seen much evidence of cost advantage in the industry—except in the case of index fund and exchange-traded fund providers—as scale does not always confer better-than-average operating profitability and the industry tends to behave as an oligopoly when it comes to pricing, with most active managers keeping pricing around industry averages and no one looking to slash prices to try to drive organic AUM growth. At this point, flows are going primarily to low-cost passive products and outperforming actively managed funds where the performance more than justifies the fees (which has been a rare occurrence the past decade with even some highly regarded 5-star funds in net outflow mode). On the passive side of the business scale is a huge advantage, as each incremental sale delivers meaningfully higher margins even when participants are taking down pricing as the scale of a fund increases. This has been a big differentiator for BlackRock, allowing the firm to

generate not only generate above-average levels of organic AUM growth but above-average adjusted operating profits and free cash flows than can be reinvested back into the business, further cementing its wide economic moat. Absent the benefits of that moat source, BlackRock, like most of its peers, would be left to the vagaries of the intangible assets that support its switching costs, which as we've seen with the rest of the group can be less resilient.

Adj. Return on Invested Capital ROIC, Excl. Goodwill ····· WACC 90.0% 80.0% 70.0% 60.0% 50.0% 40 0% 30.0% 2015 2016 2017 2018 2019 2014 2020 2021 2022 2023 2024F 2025F 2026F 2027F 2028F 2029F 2030F 2031F 2032F 2033F

Exhibit 58 BlackRock Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

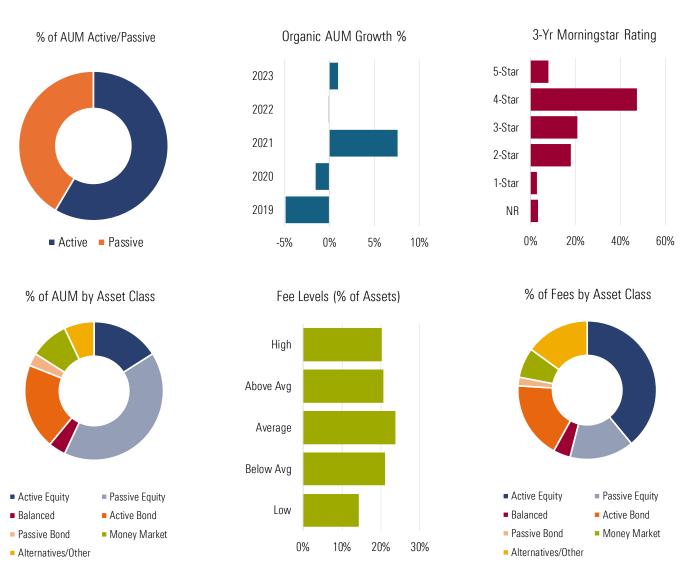
When looking at ROICs, we focus more on adjusted ROICs with goodwill, which we think is the more appropriate approach for the US-based traditional asset managers, given that almost all of them have relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach. BlackRock's ROICs including goodwill averaged 15.3% annually during 2014-23, with a standard deviation of 1.9%, compared with our estimated WACC of 8.7% for the firm. During 2024-33, we see the firm producing average annual ROICs including goodwill of 25.3% with a standard deviation of 3.8%. While BlackRock's ROICs are comfortably above our estimate of the firm's cost of capital, something we'd expect from a company with an economic moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of a moat than the quantitative signals. In BlackRock's case, the firm has both qualitative and quantitative bases covered.

Invesco: Lowered Our Moat Rating to None From Narrow on Diminished Intangible Assets

We've lowered our moat rating for Invesco to none from narrow after reassessing the firm's qualitative and quantitative attributes. Although the firm has some moatworthy characteristics—such as a well-known brand, well-forged distribution ties, repeatable investment strategies, and an ability to generate positive organic AUM growth—these attributes and other "intangible assets" have diminished more than we expected the past five years. At this point, we believe the firm will struggle to consistently

outearn our estimate of its cost of capital over the next decade—one of the key considerations for a narrow moat rating. While Invesco gets some credit for being diversified by geography and product/ asset class (including meaningful passive exposure), its heavier reliance on the retail channel, weaker relative investment performance, and a lack of enough differentiated products to blunt ongoing fee and margin compression keep it from garnering a moat.

Exhibit 59 Key Identifying Details and Ratings for Invesco's Product Portfolio Covered by Morningstar — June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses?

While Invesco is structurally set up to hold on to assets regardless of market conditions, being somewhat diversified across asset classes, investment strategies, distribution channel, and geographic reach, these attributes and its other "intangible assets" have not been enough to keep the firm's

retention rate above the industry or group averages. During 2014-23, Invesco's average annual retention rate was 75%, lower than the average annual rate of 78% for the group and 76% for the US industry. The company's five main asset classes are skewed more heavily toward equities (57% of managed assets and 54% of management fees), with fixed-income (23% and 20%), balanced (4% and 4%), money market (9% and 7%), and alternatives/other strategies (7% and 15%) accounting for the remainder. Invesco has a meaningful amount of passive exposure, accounting for 42% of Invesco's total AUM of \$1.716 trillion at the end of June 2024, including 65% and 15% of the company's equity and fixed-income operations.

On the distribution front, the firm is more heavily weighted toward retail investors, with 68% of managed assets coming through the retail intermediary channel, and 32% sourced from institutional clients. While Invesco's US retail business is one of the 10 largest nonproprietary fund complexes in that market, the firm has a respectable presence outside of North America, with 28% of its AUM sourced from Europe, Africa, and the Middle East (14%) and Asia (14%). That said, the firm's heavier exposure to the retail channel and equities leaves it more exposed to fee compression at the hands of the gatekeepers of the broker/dealer and retail-advised networks. While the firm has a meaningful amount of passive products, which should be consistent flow generators, Invesco has been picking up a lot more low- and non-management fee earning AUM of late, which has pressured its fee realization rate.

At the end of the second quarter of 2024, Invesco's ETF platform had \$654 billion in AUM globally, accounting for 39% and 93% of its total and passively managed assets, respectively. The Invesco QQQ Trust is not only the firm's largest fund (with \$287 billion in AUM at the end of June 2024) but its largest flow generator. That said, Invesco's ETF operations are relatively small when compared with industry giants like BlackRock/iShares (with \$3.8 trillion in ETF AUM at the end of June 2024) and Vanguard (\$2.8 trillion)—with Invesco's business accounting for just 6% (5%) of the US (global) market. While the firm has traditionally focused on niche products, rather than compete head-to-head with index-based ETF offerings, it also hasn't developed the same kind of scale-driven cost advantages evident at BlackRock.

Even so, we don't see enough differentiated products or services at Invesco that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than their peers and/or blunt ongoing industry price compression, or lead to an improvement in adjusted operating margins, which is why the firm received neutral ratings for Product Breadth & Reach and Distribution Channel Strength, even as we rated them positive for Passive & Active Capabilities.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? Invesco has fewer share classes with fees in the low to below average range than we'd like to see, which leaves it exposed to ongoing fee compression—especially in the retail channel. The company has developed a bad rap on the fee front, having disappointed investors in four of the past five years with declines in its fee realization rate that were worse than the industry averages and our own forecast for 3%-5% average annual fee rate declines for large-scale traditional asset managers), as the firm has had to make more concessions to maintain shelf placement.

On top of that, it looks like Invesco has been pulling in significantly more passive ETF and unit investment trust, or UIT, flows of late than flows into actively managed funds, which has been problematic for its fee realization rate. Not only do these products have lower fees tied to them, but some portion (and management has not been specific) of its ETF and UIT offerings that have been driving these flows are in non-management fee earning AUM. While these flows can be relatively short-term in nature, the low to nonexistent revenue yield on these products has had a significant impact on overall net revenue yield. So, while the firm is generating solid organic AUM growth it has been coming at the expense of its fee realization rate.

Ultimately, when we ask ourselves if Invesco offers anything differentiated enough with its products and services that would allow the firm to get a better price than their peers or to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—we couldn't really come up with much. All of which informs our negative ratings for Fee Pricing Power and Fee Diversity & Exposure for the asset manager.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given Invesco's meaningful exposure to passive strategies (42% of total AUM), tracking error is an important consideration on the performance front. Invesco, unfortunately, does not release data on how much of its passively managed AUM is within or above applicable tolerances on a one-, three-, and five-year basis. As for its active fund operations, Invesco's current firmwide Morningstar Rating of 3.01 stars is below the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 47% and 8% of its open-end fund AUM assessed by Morningstar rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were almost flipped, with 9% and 44% of assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

Focusing on reported performance relative to benchmarks and/or peers, the firm's results are a bit more mixed, with 44% and 39% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, while 52% and 92% of its active bond-fund AUM was outperforming at the end of the same period. Invesco's Success Ratios were also disappointing, with the firm's three- and five-year Risk Adjusted Success Ratios of 43.0 and 28.0, respectively, being lower than the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). All of which points to inconsistent and subpar investment performance, raising questions about the company's ability to develop and maintain repeatable investment processes that can yield solid upper quartile performance on a regular basis. Hence, the negative rating for Investment Performance & Manager Reputation.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency? Invesco's long-term strategy has been focused on investing in the business, maintaining financial strength and flexibility, returning a substantial portion of earnings to shareholders as share repurchases and dividends, and (when it makes sense) acquiring businesses that fill either a product or distribution

hole. In our view, better cultures and internal investment processes in the asset-management business tend to lead to better and more consistent investment performance and organic growth as well as little employee turnover. When growth becomes harder to come by, which has become the case for many of the US-based traditional asset managers, we expect firms like Invesco to take a variety of actions, including overhauling their leadership or their investment processes, buying a competitor with better performance or greater product, channel, or geographic diversity, or branching out more aggressively into less exposed strategies (given that fee and margin compression seem to be the norm for traditional active equity strategies). Invesco has been willing to make moves aimed at effecting change, but over the past decade we've been disappointed by some of the results, as better performance and organic growth have not always translated into a meaningful improvement in profitability. All of which informs our neutral rating for Culture & Stewardship and our negative rating for Capital Investment Efficiency.

What Are the Key Points Against a No-Moat Rating?

For a return to a narrow moat rating on Invesco, we'd need to see not only an improvement in the company's retention rate, which was 75% on average annually during 2014-23, lower than the average annual rate of 78% for the group and 76% for the US industry, but improvement in most of the "intangible assets" that support the switching costs advantage inherent in the industry. For a long time, Invesco was a top pick for us among the US-based traditional asset managers, having generated solid organic growth in its long-term AUM with a broadly diversified platform (including a niche ETF product platform), despite generating below-average levels of operating profitability (primarily because of the costs associated with its more retail-centric distribution platform).

While the company had been getting closer and closer to industry profitability levels, Invesco has taken it on the chin the past several years and we expect the firm to continue to struggle to generate excess returns in most years over the next decade — one of the key considerations for maintaining a narrow moat rating. Even with the company being well diversified by product/asset class and geography, including a heavier presence in passive investments than many of its peers, its heavier reliance on the retail channel, weaker relative investment performance, and a lack of enough differentiated products or services to allow the firm to avoid ongoing fee compression keep it from garnering a moat. At this point, we'd have to see improvements in a lot of the intangible assets that support the switching costs inherent in the asset manager's business model, and some signs of scale-driven cost advantages in its passive operations, to raise the qualitative ratings, but given where ROICs have been trending it would take a lot of improvements across the organization to get Invesco back to a narrow moat rating.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which we think is appropriate for all the US-based traditional asset managers, given that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. Invesco's ROICs including goodwill averaged 9.3% annually during 2014-23, with a standard deviation of 2.6%, compared with our estimated WACC of 7.3% for the firm. During 2024-33, we see the firm producing average annual ROICs including goodwill of 6.9% with a standard deviation of 1.4%. While Invesco's ROICs have historically been above our

estimate of the firm's cost of capital, something we'd expect from a company with an economic moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of a moat than the quantitative signals. In Invesco's case, the firm is expected to struggle with both as we move through the next decade.

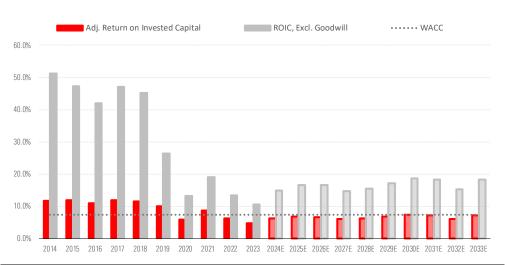


Exhibit 60 Invesco Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Franklin Resources: Moved Moat Rating to None From Narrow on Diminished Intangible Assets

We've lowered our moat rating for Franklin Resources to none from narrow after reassessing the firm's qualitative and quantitative attributes. Although the company has some moat worthy characteristics—like well-known brands (including Franklin Templeton, Western Asset Management, ClearBridge Investments, Brandywine Global, Clarion Partners, Martin Currie, and Royce Investment Partners), well-forged distribution ties, repeatable investment strategies, and a track record of producing excess returns—these attributes and other "intangible assets" have diminished more than we expected the past five years. We believe the firm's excess returns will continue to diminish, especially as its recent problems at Western Asset Management (which accounts for 34% of AUM and 36% of fee revenue) will likely lead to a big hit to the bond shop's reputation and increased outflows, leaving Franklin struggling to consistently outearn our cost of capital estimate over the next decade—a key consideration for a narrow moat rating. While the company gets credit for being diversified by geography and product/asset class, its reliance on the retail channel, weaker relative investment performance, and a lack of enough differentiated products to blunt ongoing fee compression keep it from garnering an economic moat.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses?

While Franklin is structurally set up to hold on to assets regardless of market conditions, being somewhat diversified across asset classes, investment strategies, distribution channel, and geographic reach, these attributes and its other "intangible assets" have not been enough to keep the firm's retention rate above the industry or group averages. During 2014-23, Franklin's average annual retention rate was 75%, lower than the average annual rate of 78% for the group and 76% for the US industry. The

company's five main asset classes are skewed more heavily toward equities (36% of managed assets and 41% of management fees) and fixed-income (34% and 32%), with balanced (10% and 9%), money market (5% and 4%), and alternatives/other strategies (15% and 14%) accounting for the remainder. Franklin has only a miniscule amount of passive exposure (just 2% of AUM).

Exhibit 61 Key Identifying Details and Ratings for Franklin Resources' Product Portfolio Covered by Morningstar—June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

On the distribution front, the firm is weighted more toward retail investors, with 52% of its \$1.647 trillion of AUM at the end of June 2024 coming through the retail intermediary channel, 46% sourced from institutional clients, and 2% coming from the high-net-worth channel. That said, the firm's heavier exposure to the retail channel, poorer performing equity strategies, and now a fixed-income business operating under a "shroud of wrongdoing" leaves it more exposed to fee compression at the hands of

the gatekeepers of the broker/dealer and retail-advised networks. Franklin has historically maintained strong relationships with financial advisors, not only allowing it to capture investor inflows in periods when products and/or asset classes are in favor, but also limiting outflows when the opposite is true. But the advantages provided by these relationships have been altered over much of the past decade, with the gatekeepers of the broker/dealer and retail-advised networks focused more heavily on performance and fees. Franklin is, however, one of the more global firms among the US-based traditional asset managers we cover, with 30% of its AUM invested in global/international strategies and just as much sourced from clients domiciled outside the United States.

The company has offices in more than 30 countries, with on-the-ground investment research and trading desks in many of these locations, allowing Franklin to offer a global perspective, as well as local expertise, to its clients. The firm's international operations also have a slightly higher barrier to entry than its domestic business, given the costs and expertise required to deal with the multitude of different regulatory environments, the foreign exchange risk, and the marketing of investment products to many distinct cultures around the globe. That said, these operations are also more costly to run, and in many cases require the firm to keep cash and/or investments in country to satisfy local regulators.

Ultimately, we ask ourselves if Franklin had anything differentiated enough in their products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than peers to blunt ongoing industry price compression, or lead to an improvement in adjusted operating margins, we come up empty. All of which explains our neutral ratings for Product Breadth & Reach and Passive & Active Capabilities. Our negative rating for Distribution Channel Strength is more anticipatory, as Western Asset Management is the third leg of the triumvirate of institutional bond managers that includes Pimco and BlackRock. Manager departures like we've seen back-to-back at the bond shop, as well as the "shroud of wrongdoing" tied to the Wells Notice it received, will lead to a loss of confidence for the fixed-income firm, which caters primarily to institutional investors known to depart asset-manager relationships following bouts of poor performance, key personnel departures, and/or investigations like the one that Western is currently facing.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? Franklin has fewer share classes with fees in the low to below average range than we'd like to see, which leaves it exposed to ongoing fee compression—especially in the retail channel. While the company did see its fee realization rate decline 4.8% annually on average during 2019-23, which would put it at the lower end of our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers, some of the firm's fee compression was the result of the 2020-21 onboarding of Legg Mason (which had a lower fee realization rate due to its heavier exposure to fixed-income products and institutional investors). During 2014-23, Franklin's fee realization rate declined at a 3.0% CAGR, which is what we are forecasting annually over the next five to 10 years, leaving it closer to the lower end of our forecast range for annual fee rate declines for large-scale traditional asset managers going forward.

That said, when we asked ourselves if Franklin was offerings anything differentiated enough with its products and services that would allow the firm to get a better price than their peers or allowed it to

operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—we came up short. All of which informs our negative ratings for Fee Pricing Power and Fee Diversity & Exposure for the firm.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given its lack of passive strategies, we move on to Franklin's active fund operations. The firm's current firmwide Morningstar Rating of 3.09 stars is below the group average of 3.22 stars, but slightly above the industry average of 3.06 stars. At the end of the June quarter of 2024, the company had 26% and 20% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were somewhat weaker, with 15% and 10% of open-end fund AUM that was assessed by Morningstar being rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

As for reported performance relative to benchmarks and/or peers, the firm had 44% and 39% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, while 52% and 92% of its active bond-fund AUM were outperforming at the end of the same period. Franklin's Success Ratios were more in the neighborhood of what we saw for Invesco, AllianceBernstein, and AMG—each of which received negative ratings for Investment Performance & Manager Reputation. While the company's three- and five-year Risk Adjusted Success Ratios of 49.0 and 38.0, respectively, was on par with the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5), we think the Wells Notice investigation and expected outflows at Western will alter the firm's Success Ratio projections going forward.

Even worse, history has shown that once an asset manager loses the trust of institutional investors due to periods of poor performance or reputational issues, it can take upward of seven years to win back that business as these investors are looking for solid three- and five-year investment performance that they trust will be consistent going forward. Western went through a phase like this in the aftermath of the 2008-09 financial crisis when poor bond-fund performance led to seven years of net outflows.

This also shines a spotlight on one of the main problems we've had with Franklin's management of its subsidiaries. The individual fund families that make up the firm maintain control over their investment disciplines, which means they can make larger and riskier bets that can have an outsize impact on the firm. The company's core culture is one of prudence and patience, with funds tending to be run by veteran managers, with Franklin's commitment to longevity at times keeping the firm from dealing more aggressively with investment underperformance. Given the company's history of inconsistent and subpar investment performance, we have concerns about Franklin's ability to develop and maintain repeatable investment processes that can yield solid upper quartile performance on a regular basis. Hence, the negative rating for Culture & Stewardship right now for the firm.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency? Franklin has historically had the capital required to effect change but has, in our view, been lackluster about attacking deficiencies in its operations (especially when addressing poor performance results on the part of its portfolio managers). While we've been encouraged by current management's willingness to be more aggressive about shaking things up, meaningful changes in research and investment processes and subsequent improvements in investment performance will take time. We had originally viewed the company's 2020 acquisition of Legg Mason favorably, as it not only improved Franklin's product mix — moving the firm away from a much heavier focus on large-cap equities (which are the most susceptible to the growth of extremely low-cost index-based ETFs) — but raised the potential for the company to eventually generate positive organic AUM growth on a more consistent basis. That said, it now looks like that deal may end up weakening Franklin's competitive position, especially if the hit to Western's reputation leads to a long string of outflows at the bond shop. For some perspective, when Bill Gross (another high-profile bond manager) left Pimco in September 2014, that bond shop lost \$126 billion to net outflows over the next two quarters (having started the period with five times more in fixed-income AUM than Western had at the end of July 2024). Add to that lingering questions about the quality of the Putnam assets that Franklin picked up from Great West this past year, and we ended up leaning more toward a negative rating for Capital Investment Efficiency for the firm.

What Are the Key Points Against a No-Moat Rating?

For a return to a narrow moat rating on Franklin, we'd need to see not only an improvement in the company's retention rate, which was 75% on average annually during 2014-23, lower than the average annual rate of 78% for the group and 76% for the US industry, but improvement in most of the "intangible assets" that can support any remaining switching cost advantages. While a case could be made that the firm has well-known brands like Franklin Templeton, Western Asset Management, ClearBridge Investments, Brandywine Global, Clarion Partners, Martin Currie, and Royce Investment Partners, which should boost its intangible assets, the fact that the company exerts no control over these subsidiaries' investment disciplines, meaning that they can make larger and riskier bets (as well as engage in unscrupulous behavior) that can have an outsize impact on the firm, as well as damage the company's reputation (kind of like we're seeing with Western right now), weakens the argument.

Although Franklin is well diversified by product/asset class and geography, it's reliance on the retail channel, weaker relative investment performance, and a lack of enough differentiated products or services to blunt ongoing fee compression keep it from garnering an economic moat. At this point, we'd need to see improvements in a lot of the intangible assets that support the switching costs inherent in Franklin's business model to get behind a narrow moat rating, despite its ability to generate excess returns over the next decade (which couldn't be said for Invesco).

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which we think is appropriate for all the US-based traditional asset managers, given that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. Franklin's ROICs including goodwill averaged 24.3%

annually during 2014-23, with a standard deviation of 5.5%, compared with our estimated WACC of 8.3%. Much of this time frame includes periods where Franklin was not particularly acquisitive. During 2024-33, we see the firm producing average annual ROICs including goodwill of 11.2% with a standard deviation of 2.0%. That said, we expect the firm to find ways to generate excess returns in most years.

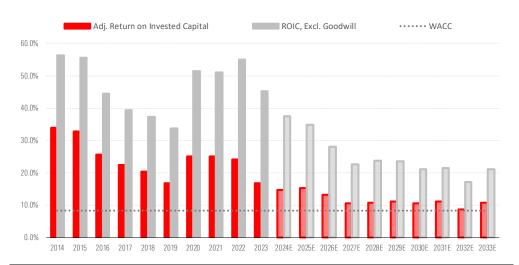


Exhibit 62 Franklin Resources Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

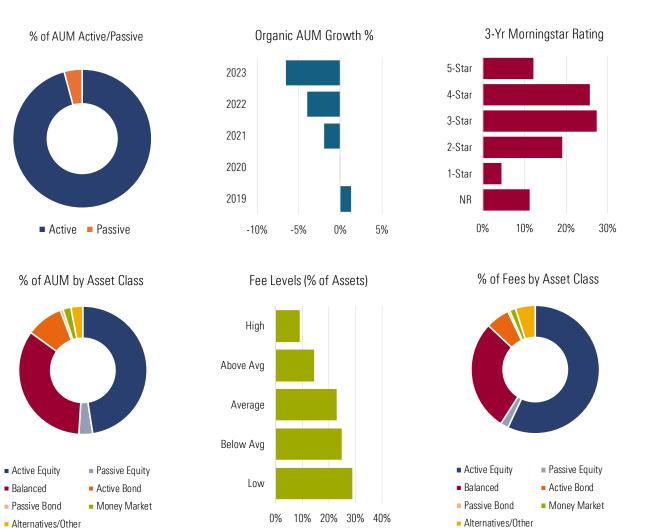
While Franklin's ROICs have historically been above our cost of capital estimate, something we expect from a company with a moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of an economic moat than the quantitative signals. In Franklin's case, we're not seeing enough qualitatively to justify an economic moat, and if the company's problems at Western lead to a bigger hit to the bond shop's reputation and greater outflows than we are currently projecting, then there will end up being periods over the next five years where Franklin does not generate excess returns.

T. Rowe Price: Lowered Moat Rating to Narrow Despite Having Wide-Moat Characteristics

We've lowered our economic moat rating for T. Rowe Price to narrow from wide after reassessing the firm's qualitative and quantitative attributes. Although the firm has some wide-moat worthy characteristics—like a well-respected brand, attractive distribution with high retention rates, repeatable investment strategies, reasonable fees, and an impressive track record of excess returns— we've seen a large enough deterioration in the firm's qualitative and quantitative attributes the past five years to warrant taking the moat down a notch.. The firm's heavy concentration in the retirement channel (which accounts for two thirds of its AUM) has been a double-edged sword during the baby boomer retirement cycle, which still has another five years or more to run its course, while poorer three- and five-year investment performance has only added to the headwinds the firm faces as it tries to generate above-average organic AUM growth on a more consistent basis.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? In an environment where active fund managers are under assault for poor relative performance and high fees, T. Rowe Price has historically been one of the better positioned US-based traditional active asset managers we cover. The biggest differentiators for the firm have been the size and scale of its operations, the strength of its brands, its consistent record of active fund outperformance, and its reasonable fees. T. Rowe Price also has a stickier set of clients than its peers, with two thirds of its assets under management derived from retirement-based accounts. In the past, we were willing to give the firm deference for having a significant portion of its AUM derived from defined contribution, deferred annuity, and direct retail retirement accounts, especially as T. Rowe Price was generating investment performance that was consistently in the upper quartile on a three- and five-year basis. We that the switching costs and intangible assets attached to the firm were strong enough to withstand the pressures of the baby boomer retirement cycle (which likely won't abate until later this decade).

Exhibit 63 Key Identifying Details and Ratings for T. Rowe Price's Product Portfolio Covered by Morningstar — June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

What we didn't envision the last time we assessed the firm's economic moat was a ramping up of what was already stiff competition from passively managed target-date funds (spearheaded primarily by Vanguard) in the retirement channel. This has not only challenged pricing, but also sales/renewals for the company's actively managed target-date funds, which while generating good-enough performance to justify their fees continue to be priced higher than the low-cost options plan sponsors are pursuing. This has only added to the outflow headwinds T. Rowe Price was facing in the retirement channel. The firm did, however, have some success garnering shelf placement on Fidelity Investments' FundsNetwork and Schwab's Mutual Fund OneSource platforms in 2017, allowing it to generate organic AUM growth in the low-single-digits the next several years (compared with near 0% during 2011-16 and mid- to high-single digits prior to the start of the baby boomer retirement cycle).

This was still not enough for management, though, so the firm went looking for other ways to boost organic AUM growth without giving up too much in adjusted operating margins. For years, the firm had seen flows for many of its small- and mid-cap equity strategies choked off, having closed them to new investors (because each fund's asset base had gotten too large to effectively execute their investment strategies). By splitting its research, trading, and portfolio management platform into two separate entities starting in 2021—requiring an additional set of personnel to support this effort—T. Rowe Price expected to tap what was effectively unmet demand for its small- and mid-cap strategies that had been closed to new investors for years. But then the 2022-23 equity and credit market dislocation happened.

With no asset class strategies outperforming enough to land them in the upper quartile on a three- and five-year basis at the end of June 2024, and outflows (which had been a rarity for the firm until the past few years) expected to continue, it will take some time before things improve for T. Rowe Price. In the meantime, the company is operating with higher levels of operating leverage than it had five years ago, with adjusted operating margins some 1,000 basis points below historical norms. That said, the company will continue to have a slightly better-than-average switching cost profile relative to its active asset manager peers, even as some of the intangible assets supporting its narrow economic moat have diminished the past several years. This explains our positive ratings for Passive & Active Capabilities and Distribution Channel Strength, as well as our neutral rating for Product Breadth & Reach.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? T. Rowe Price's fees skew more to the low to below average range, albeit not as heavily as BlackRock or Cohen & Steers. While the firm did see its fee realization rate decline 2.1% annually on average during 2019-23, and 1.2% annually on average during 2014-23, which would put its fee compression below the lower end of our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers, we expect future declines will likely be closer to the bottom end of our range.

When we ask ourselves if T. Rowe Price is offerings anything differentiated enough with its products and services that would allow them to get a better price than their peers or to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—the answers tend to be more mixed.

That said, the firm's actively managed target-date funds continue to generate good enough performance to justify their fees, which does hold some weight with retirement plan sponsors, as well as the gatekeepers of broker/dealer and retail-advised networks, even with the proliferation of low-cost passive products. Hence, our neutral ratings for Fee Pricing Power and Fee Diversity & Exposure.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given its lack of passive strategies, we move on to T. Rowe Price's active fund operations. The firm's current firmwide Morningstar Rating of 3.35 stars is well above the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 26% and 12% of its open-end fund AUM assessed by Morningstar rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were somewhat worse, with 15% and 15% of open-end fund AUM assessed by Morningstar rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry. This poorer showing is no doubt due to the negative impact that the 2022-23 equity and credit market dislocation had on T. Rowe Price's more growth-heavy equity line up of investment funds.

Moving on to reported performance relative to benchmarks and/or peers, the firm had just 39% and 42% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter of 2024, while 36% and 53% of its active bond-fund AUM was outperforming at the end of the same period. These results were more on par with what we're seeing from Invesco and Franklin Resources in their reported three- and five-year performance figures — both of which received negative ratings for Investment Performance & Manager Reputation. As for T. Rowe Price's Success Ratios, the company's three- and five-year Risk Adjusted Success Ratios of 54.0 and 51.0, respectively, were close to the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5), which is unusual for the firm.

At the end of 2018, T. Rowe Price's three- and five-year Risk Adjusted Success Ratios were 75.0 and 75.0, respectively, compared with a group average (median) of 49.7 (48.7) and 48.3 (48.6) and an industry average (median) of 47.0 (45.0) and 46.5 (44.0). The company's ability to consistently deliver industry leading performance with less volatility than its peers had historically placed its investment performance in the top quartile (if not top decile) of fund managers, making them a perennial favorite for our manager research group. Believing it could just be a matter of time before the firm gets past its more recent results, with T. Rowe Price having demonstrated in the past that its rigorous research process and continued investment in its research team have allowed it to withstand many of the headwinds facing active asset managers, we've kept our positive rating for Culture & Stewardship in place.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency?

As part of ongoing efforts to enhance the company's competitive positioning, management has looked to build additional scale through new investment products, as well as by starting a separate US investment adviser subsidiary with its own dedicated research platform. The company has always looked for ways to expand the reach of its business by further penetrating domestic distribution channels and moving into non-US markets, as well as investing in technology and business transformation aimed at improving

client experiences and delivering operating efficiencies. While the acquisition of alternative asset manager Oak Hill Advisors in 2021 might have run contrary to the firm's history of preferring to grow organically, the flow headwinds that T. Rowe Price will be facing over the next decade as baby boomer rollovers continue to affect organic AUM growth in the retirement channel, and the need to diversify the portfolio to include products that are less at risk of fee compression from low-cost index-based products, made the move into alternatives (where we expect to see above average levels of organic AUM growth and below average amounts of fee compression relative to more traditional asset classes over the next decade) a logical move. Overall, it looks like the firm paid a decent premium (midteens EV/EBITDA multiple) for an alternative asset manager with \$47 billion in primarily alternative credit AUM earning management fees that are much higher than what it earns on its traditional asset-management products. That said, we've not seen much organic AUM growth from the alternative asset manager since the deal closed. All of which informs our neutral rating for Capital Investment Efficiency.

What Are the Key Points Against a Narrow Moat Rating?

If we were to award a moat rating different than narrow, it would not be none, as the firm has too many positive attributes, and continues to generate above average levels of adjusted operating income, as well as a meaningful spread between its ROICs and our estimate of the company's cost of capital. While T. Rowe Price has struggled with organic AUM growth, its switching costs advantage relative to peers remains in place. The company's average annual redemption rate has likely been somewhere between the industry's rate of 76% and estimated rates of 90% or more in the retirement channel's defined contribution segment. T. Rowe Price derives a significant portion (just over two thirds) of its AUM from defined contribution retirement assets and deferred annuity and direct retail retirement assets. With the switching costs for these offerings being significantly higher than those for most other accounts (the majority of which are non-tax-deferred), T. Rowe Price has had a stickier set of assets than its peers.

Benefiting from a steady stream of investor inflows into defined contributions and other retirement plans, the firm has also rarely seen outflows historically. That said, the company has experienced a prolonged period of outflows the past five-plus years as it has felt the brunt of the baby boomer retirement phase. Even so, we continue to believe that T. Rowe Price 's size and scale, the strength of its brand, the stickiness of its assets, and its track record of generating mostly above-average active fund performance provide the firm with a leg up over peers. Although the company does have many of the characteristics that we would attribute to a wide-moat firm, we've generally found that asset managers with business models that are more heavily skewed toward one particular asset class or category can have a more difficult time generating consistent returns for investors, hence the narrow moat rating. This also aligns more with our narrow-moat rating on Cohen & Steers.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which we think is appropriate for all the US-based traditional asset managers, given that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. T. Rowe Price's adjusted ROICs including goodwill were 35.8% on average annually during 2014-23 with a standard deviation of 6.4%, compared with an

estimated WACC of 9.0%. Our 2024-33 forecast has the firm generating adjusted ROICs including goodwill of 24.6% on average with a standard deviation of 3.2%. While T. Rowe Price's ROICs are comfortably above our cost of capital estimate, something we expect from a company with an economic moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of an economic moat than the quantitative signals. In this case, we see T. Rowe Price's qualitative drivers as being indicative of a narrow moat.

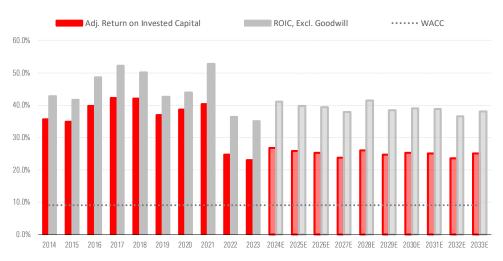


Exhibit 64 T. Rowe Price Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

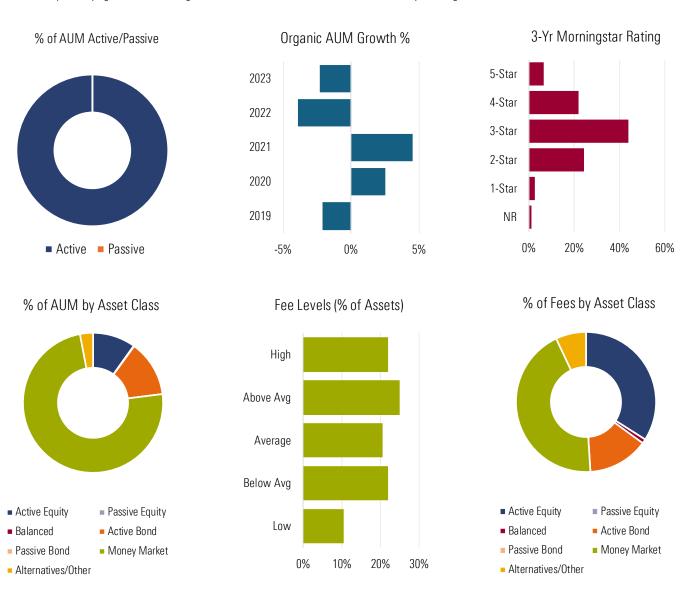
Federated Hermes: Maintained No-Moat Rating Due to Heavy Exposure to Money Market Funds

We've left our economic moat rating for Federated Hermes at none after reassessing the firm's qualitative and quantitative attributes. Although the firm has some moat worthy characteristics—like a well-known brand, well-forged distribution ties, and an impressive track record of excess returns—we think its heavier reliance on money market funds, which account for 74% of AUM (and 44% of revenue exclusive of distribution expenses and have put up more headwinds than tailwinds the past 15 years) has kept the firm from leveraging its size and scale to drive solid long-term organic AUM growth or above-average levels of adjusted operating profitability. The money market fund business, in our view, is basically commodified, with the government and retail money market funds offered by Federated offering no real advantage to investors over bank deposits and bank money market funds, as well as low-cost ultrashort bond funds and ETFs.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? With \$783 billion in AUM at the end of the second quarter of 2024, Federated has the size and scale necessary to be competitive in the asset-management industry, but it has not always translated into solid organic AUM growth or above-average levels of adjusted operating profitability. Federated is not as diversified as it needs to be, with just 10% of its AUM derived from equity strategies, 12% from fixed-income funds, 3% from alternatives, and less than 1% from multi-asset portfolios. Money market AUM (which are expected to generate 44% of revenue this year) accounted for 74% of Federated managed

assets at the end of June 2024. With the fees earned on the company's cash-management operations (estimated to be 14 basis points during 2023) being lower than what Federated can earn on its equity (59 basis points), alternatives/multi-asset (69 basis points), and fixed-income (21 basis points) offerings, growth in the money market platform tends to depress the firm's revenue yield.

Exhibit 65 Key Identifying Details and Ratings for Federated Hermes' Product Portfolio Covered by Morningstar — June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Scale is an essential attribute for long-term success in the cash-management business, and Federated is well positioned with \$587 billion in money market AUM at the end of June 2024. This made it one of the 10 largest managers of US money market funds with around 10% market share. For some perspective, Fidelity (\$1.234 trillion in money market AUM), JPMorgan (\$661 billion), Schwab (\$534 billion), Vanguard

(\$525 billion), BlackRock (\$518 billion), Federated (\$423 billion), Goldman Sachs (\$397 billion), Dreyfus (\$269 billion), Morgan Stanley (\$245 billion), and State Street/SSgA (\$211 billion) were the 10 largest US providers of retail and institutional money market funds tracked by Morningstar Direct at the end of the second quarter of 2024. While Federated has developed expertise in managing cash for institutions, which typically have stringent requirements for regulatory compliance, relative safety, liquidity, and competitive yields, we don't believe its money market operations confer any sort of competitive advantage. The biggest competitor for the industry has always been bank deposits, which have the advantage of qualifying for FDIC insurance (with bank-provided money market and other bank deposit accounts covered for up to \$250,000) even though they have at times struggled to be yield competitive.

Any advantage money markets had was diminished during the decade following the 2008-09 financial crisis, when historically low interest rates required money market fund providers (which had previously charged management fees of 26-27 basis points on average) to offer fee waivers to offset negative yields on some funds, as the expenses associated with running the funds were higher than the returns generated by their assets. This was problematic for a firm that has relied on the excess cash thrown off by its money market operations to diversify its AUM, by buying up equity and fixed-income shops and funding internally generated product offerings.

At this point, we think the money market fund business is basically commodified, with government and retail money market funds offering no real advantage over bank deposits and bank-provided money market accounts. Money market funds are also facing pressure from low-cost ultrashort bond funds and ETFs, which we think will keep the industry from ever seeing the 26-27-basis-point management fees its products generated before the 2008-09 financial crisis. While fees on money market funds have risen back to 15-16 basis points this past year in response to rising rates (having fallen as low as 5-7 basis points during 2020-22 due to the negative effect of fee waivers), we see fees eventually trending down closer to a more normalized 12-13 basis points (primarily due to the competition from low-cost ultrashort bond funds and ETFs). This will likely limit the contribution that Federated's cash-management operations can make to ongoing efforts to expand and diversify its business mix.

While the firm has made strides to expand its equity, fixed-income, multi-asset and alternatives offerings, Federated has traditionally lacked the scale required in these businesses to be truly competitive, or in a worst-case scenario to offset the losses it would experience if there were large outflows from its money market funds (much as there were during 2010-14 when investors who had flooded into money market funds during the 2008-09 financial crisis started re-risking their portfolios). Although it does have a unique bundling of offerings that should be able to differentiate it from its peers, the firm has struggled to turn that into a more compelling story, with performance being solid but lacking any true standouts and fees showing little consistency with historical performance levels.

Overall, we don't see anything differentiated enough in Federated's offerings that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than peers, blunt ongoing industry price compression, or lead to an improvement in adjusted operating margins, which is

why the firm received negative ratings for Product Breadth & Reach, Passive & Active Capabilities, and Distribution Channel Strength.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? Federated has fewer share classes of its long-term AUM (which excludes money market funds) with fees in the low to below average range than we'd like to see, which leaves it exposed to ongoing fee compression — especially in the retail channel. Given the lack of meaningful scale and above average performance from its equity, fixed-income, multi-asset and alternatives offerings, the company will likely need to make concessions to maintain shelf placement as we move forward. Federated saw its fee realization rate for its equity and fixed-income platforms, respectively, decline 2.2% and 5.6% on average annually during 2019-23 compared with our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers. During 2024-28, we have the company posting a negative 2.8% CAGR for its equity platform, with its fixed-income operations expected to see a 3.7% average annal decline in its fee realization rate. When we asked ourselves if Federated offered anything differentiated enough with its products and services that would allow them to get a better price than their peers or allow them to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products) — we came up short. Hence, the negative ratings for Fee Pricing Power and Fee Diversity & Exposure for the firm.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given its lack of passive strategies, we move on to Federated's active fund operations. The firm's current firmwide Morningstar Rating of 3.05 stars is below the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 22% and 7% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were somewhat better, with 32% and 7% of Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry. As Federated does not report the percentage of equity and bondfund AUM that is outperforming on a quarterly basis, we'll move on to the firm's Success Ratio, with the company's three- and five-year Risk Adjusted Success Ratios of 42.0 and 46.0, respectively, being more on par with the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). Thes results are more in line with Invesco, Franklin Resources, AllianceBernstein, and AMG, all of which received negative ratings for Investment Performance & Manager Reputation. With investors being far less willing to pay up for products or solutions when they believe the performance and investment outcomes do not justify the fees managers are charging, the impetus is on active managers to improve the disparity between their performance and benchmarks.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency?

Better cultures and internal investment processes tend to lead to better and more consistent investment performance, organic growth, and relatively little employee turnover for the asset managers. When growth becomes harder to come by, which has become the case for the more traditional US-based asset managers like Federated, we expect firms to take a variety of different actions, including overhauling

their leadership or their investment processes, buying a competitor with better performance or greater product, channel, or geographic diversity, or branching out more aggressively into less-exposed strategies. In general, we look positively on firms whose actions have enhanced their economic moats and have the capital and the wherewithal to maintain their leadership positions and tend to look more skeptically on firms that continue to work on repairing serious deficiencies in their structures or that lack the capital and wherewithal to defend their economic moats longer term.

In Federated's case, the company has not been shy about using acquisitions, including deals aimed at consolidating money market fund assets and expanding its equity and fixed-income operations, the latter of which management believes is critical for diversifying the firm's asset base and revenue away from money market funds. That said, while the fixed-income investment group is centralized and well-organized, the equity side of the business is fragmented and doesn't have a unified approach, which has kept Federated from finding a productive way to combine its home-grown equity efforts with its acquisitions. The company's acquisition activity has also been highly dependent on the cash thrown off by its money market operations, which have been hamstrung at times the past two decades by the need to offer fee waivers to offset negative yields on some of its money market funds (as historically low interest rates left the expenses associated with running these funds higher than the returns they could generate). Even so, we view the company's Capital Investment Efficiency as being more negative than neutral, while we have given the firm a neutral rating for Culture & Stewardship.

What Are the Key Points Against a No-Moat Rating?

While Federated has the size and scale necessary to be competitive in the asset-management industry, it has not always translated into solid organic AUM growth or above-average levels of adjusted operating profitability. Despite Federated Hermes having \$783 billion in AUM at the end of June 2024—with equities accounting for 10% of managed assets (and 34% of fees), fixed-income at 12% (14%), alternatives at 3% (7%), multi-asset products at 1% (1%), and money market funds at 74% (44%)—we think that its heavier reliance on money market funds (which have put up more headwinds than tailwinds the past 15 years) has kept the firm from leveraging its size and scale to drive solid long-term organic AUM growth or above-average levels of adjusted operating profitability. The money market fund business is basically commodified, with government and retail money market funds offering no real advantage over bank deposits and bank money market funds, as well as low-cost ultrashort bond funds and ETFs. For us to consider a narrow moat rating, we'd have to see the firm less reliant on money market funds, with visible signs that it has switching costs supported by intangible assets.

Within our coverage, Federated has been alone in consistently underperforming the average annual retention rate of 76% for the industry, with an average annual retention rate of 70% the past 10 years. And as we noted above, Federated doesn't really offer anything differentiated enough with its products and services to generate stronger flows, let alone allow the firm to get a better price than their peers or allow them to operate in a segment where price competition was not an issue.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which we think is appropriate for all the US-based traditional asset managers, given that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. During 2014-23, Federated generated adjusted ROICs including goodwill of 21.7% on average annually with a standard deviation of 2.5%, compared with an estimated WACC of 8.6%. Our 2024-33 forecast has Federating Price generating adjusted ROICs including goodwill of 18.3% on average with a standard deviation of 1.6%. While Federated's ROICs are comfortably above our cost of capital estimate, something we expect from a company with a moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of an economic moat than the quantitative signals.

ROIC, Excl. Goodwill WACC Adi, Return on Invested Capital 100.0% 90.0% 80.0% 70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 2016 2017 2018 2019 2020 2021 2022 2023 2024E 2025E 2026E 2027E 2028E 2029E 2030E 2031E

Exhibit 66 Federated Hermes Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

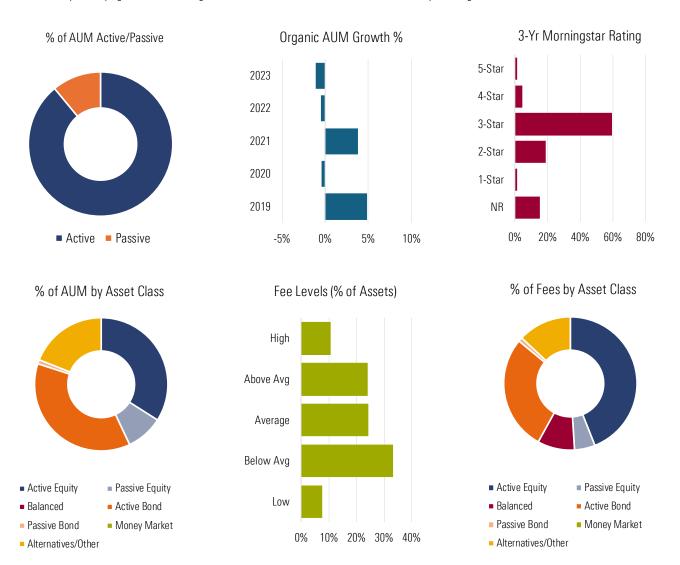
AllianceBernstein: Maintained No-Moat Ratings Despite Some Narrow-Moat Characteristics

We've left our economic moat rating for AllianceBernstein at none after reassessing the firm's qualitative and quantitative attributes. Although the firm has some moat worthy characteristics—like a well-known brand, well-forged distribution ties, repeatable investment strategies, high retention rates and a track record of generating excess returns— these attributes and other "intangible assets" have diminished more than we expected the past five years. While the firm has the size and scale necessary to be competitive in the asset-management industry, and is structurally set up to hold on to assets regardless of market conditions, we don't see anything differentiated enough in AB's products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than their peers and/or blunt ongoing industry price compression, or lead to an improvement in adjusted operating margins.

Does the Asset Manager's Differentiation Provide It With More Strengths than Weaknesses?

AllianceBernstein is structurally set up to hold on to assets regardless of market conditions, being somewhat diversified across asset classes, investment strategies, distribution channel, and geographic reach. These attributes and its other "intangible assets" have been enough to keep the firm's retention rate above the industry or group averages. During 2014-23, AllianceBernstein's average annual retention rate was 86%, higher than the average annual rate of 78% for the group and 76% for the US industry. The company has three main asset class segments: equity (43% of managed assets and 49% of fees), fixed-income (38% and 29%), and other strategies (19% and 22%), which is made up of the firm's asset allocation services and certain other alternative investments. AllianceBernstein also has some passive exposure, with 11% of firmwide AUM dedicated to passive products (accounting for 20% of its equity AUM, 5% of its fixed-income AUM, and 7% of AllianceBernstein's other strategies).

Exhibit 67 Key Identifying Details and Ratings for AllianceBernstein's Product Portfolio Covered by Morningstar—June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Adding to the diversity of its managed assets, the firm provides investment management services to retail (41% of AUM), institutional (42%), and private wealth (17%) clients, with the last two groups traditionally being stickier than retail investors. The firm is also one of the more global asset managers in our coverage, with 40% of its \$770 billion of AUM at the end of June 2024 invested in global/international funds and 27% of managed assets sourced from clients residing outside the United States.

While the Alliance (growth equity) and Bernstein (value equity) brands were tarnished by poor investment performance during the periods leading up to and following the 2008-09 global financial crisis, the Sanford Bernstein brand remains well known for its equity research, especially in the institutional channel. Unfortunately, that has not always translated into above average performance, with AllianceBernstein's equity and multi-asset divisions having struggled to consistently deliver attractive performance relative to peers. While the fixed-income division benefits from long-tenured experts and proprietary quant tools, we don't see anything differentiated enough in the rest of the company's products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than peers and/or blunt ongoing industry price compression, or drive an improvement in adjusted operating margins. Although the firm has reduced expenses by moving the company's headquarters and most of its operations to Nashville from New York City and the surrounding area, the investment teams have remained in New York City and the company has had to deal with a fair amount of staff disruption given the scale of the move.

AllianceBernstein continues to invest in technology to improve its processes and focus on the personalization of products and services for end users. Management has prioritized investments in quantitative tools like machine learning and artificial intelligence, which should allow investment teams to tailor strategies to individual clients at scale. Although customization is a popular initiative among the competition, AllianceBernstein is already one of the largest providers of custom target-date funds in the US (with T. Rowe Price only recently jumping on board). The company also continues to expand its product lineup, launching active ETFs since 2022, including a variety of fixed-income and equity funds as well as options-based and thematic offerings. The firm acquired CarVal Investors (in 2022), a private credit manager, to round out its private offerings and is likely to introduce private credit interval funds. Even so, we don't see anything differentiated enough in AllianceBernstein's products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than their peers and/or blunt ongoing industry price compression, or lead to an improvement in adjusted operating margins, which is why the firm received neutral ratings for Product Breadth & Reach, Passive & Active Capabilities, Distribution Channel Strength, and Switching Costs Strength.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? AllianceBernstein has fewer share classes of its long-term AUM (which excludes money market funds) with fees in the low to below average range than we'd like to see, which leaves it exposed to ongoing fee compression—especially in the retail channel (which accounts for 41% of AUM and 45% of fee revenue) where the US-based traditional asset managers are feeling more pressure to make concessions to maintain shelf placement. That said, the company's overall fee realization rate (excluding performance fees) has been relatively stable the past decade, increasing 0.2% and 0.3%, respectively, on average

annually during 2019-23 and 2014-23, compared with our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers. This was due in a large part to mix shift as equities and other strategies, which tend to carry higher fees than fixed-income products, accounted for 43% and 19% of AUM, respectively, at the end of last year compared with 36% and 11% at the end of 2018.

Unfortunately, AllianceBernstein does not disclose fee rates by asset class, only by distribution channel. On that note, the firm also saw a slight mix shift in its AUM by distribution channel, with retail, institutions, and private wealth, respectively, accounting for 42%, 41%, and 17% of managed assets at the end of 2023, compared with 35%, 48%, and 17% at the end of 2018. During that time, retail fees declined 7.9%, or 1.6% on average annually, which was better than our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers. Private wealth fees, which are generally expected to fall at lower rates than retail fees, declined 1.0% on average during 2019-23. That leaves institutional account fees, which rose 2.0% on average annually during the past five years, no doubt in response to the 2022 CarVal Investors acquisition (which lifted base management fees from 17 basis points to 21 basis points overnight). Since that deal was completed, institutional fee rates for AllianceBernstein have declined 4.5% on average annually the past two years.

Ultimately, though, when we asked ourselves if AllianceBernstein offered anything differentiated enough with its products and services that would allow the firm to get a better price than their peers or allow them to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—we couldn't really come up with much. All of which informs our neutral ratings for Fee Pricing Power and Fee Diversity & Exposure for AllianceBernstein.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given AllianceBernstein's growing portfolio of passive strategies (11% of total AUM), tracking error is now an important consideration on the performance front. Most index funds and ETFs strive to mimic the performance of a particular index, with their tracking difference being the discrepancy between the performance of the index fund/ETF and the performance of the index itself. It incorporates an entire range of management decisions—from securities lending to optimization decisions—that can explain any tracking error. AllianceBernstein, unfortunately, does not release data on how much of its passively managed AUM is within or above applicable tolerances on a one-, three-, and five-year basis.

Moving on to the firm's active strategies, AllianceBernstein's current firmwide Morningstar Rating of 3.05 stars is below the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 4% and 1% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were somewhat better, with 34% and 2% of Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

Looking at reported performance relative to benchmarks and/or peers, AllianceBernstein's look slightly better, with 65% and 64% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, while 68% and 60% of its active bond-fund AUM was outperforming at the end of the same period. The reported equity results were better than most of the rest of the group, with the one exception being Cohen & Steers. As for the fixed-income results, BlackRock, Invesco, and Janus Henderson were all putting up better results than AllianceBernstein.

Looking at the company's Success Ratios, AllianceBernstein's three- and five-year Risk Adjusted Success Ratios of 40.0 and 35.0, respectively, were below the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5), with results reminiscent of what we saw for Invesco, Franklin Resources, Federated Hernes, and AMG—each of which received negative ratings for Performance & Reputation. With investors less willing to pay up for products or solutions when they believe the performance and investment outcomes do not justify the fees, the impetus is on active managers to improve the disparity between their performance and benchmarks.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency? AllianceBernstein's long-term strategy has focused on investing in the business, maintaining financial strength and flexibility, returning a substantial portion of earnings to shareholders as distributions and share repurchases, and (when it makes sense) acquiring businesses that fill product or distribution holes. In our view, better cultures and internal investment processes in the asset-management business tend to lead to better and more consistent investment performance and organic growth as well as relatively little employee turnover. When growth becomes harder and harder to come by, which has become the case for many of the more traditional asset managers, we expect firms like AllianceBernstein to take a variety of actions, including overhauling their leadership or their investment processes, buying a competitor with better performance or greater product, channel, or geographic diversity, or branching out more aggressively into less-exposed strategies for a fee and margin compression perspective (like the firm's 2022 acquisition of alternatives manager CarVal Investors).

In general, we look positively on firms whose past actions have enhanced their economic moats and have the capital and the wherewithal to maintain their leadership positions and tend to look more skeptically on firms that continue to work on repairing serious deficiencies in their structures or that lack the capital and wherewithal to defend their competitive positioning longer term. While management had a lot to clean up in the aftermath of the 2008-09 financial crisis, we think that AllianceBernstein has its house in order and has been willing to shake things up to effect change. During the past five years, the company has been focused on delivering differentiated return streams to clients—believing that, over time, the ability to produce idiosyncratic returns that cannot be easily replicated will provide the firm with a competitive advantage. The firm has also been working on commercializing and scaling up AllianceBernstein's suite of services, including carving out the Sanford Bernstein research group in a joint venture with Société Générale that is expected to increase the contribution of global equities, as well as maintaining a continuous and rigorous focus on expense management. The main goal is for AllianceBernstein to generate profitable growth on a more consistent basis. We commend the firm for

these efforts, but results are what matter, so they are what inform our neutral ratings for Culture & Stewardship and Capital Investment Efficiency.

What Are the Key Points Against a No-Moat Rating?

AllianceBernstein is structurally set up to hold on to assets regardless of market conditions, being diversified across asset classes, investment strategies, distribution channel, and geographic reach. These and other "intangible assets" have allowed the firm to maintain an average annual retention rate of 86% during 2014-23, compared with an average annual rate of 78% for the group and 76% for the industry. The company has three main asset class segments: equity (43% of managed assets and 49% of fees), fixed-income (38% and 29%), and other strategies (19% and 22%), which is made up of the firm's asset allocation services and certain other alternative investments. AllianceBernstein also has some passive exposure, with 11% of firmwide AUM dedicated to passive products (accounting for 20% of its equity AUM, 5% of its fixed-income AUM, and 7% of AllianceBernstein's other strategies). Adding to the diversity of its managed assets, the firm provides investment management services to retail (41% of AUM), institutional (42%), and private wealth (17%) clients, with the last two groups traditionally being stickier than retail investors. The firm is also one of the more global US-based traditional asset managers, with 40% of its AUM invested in global/international funds and 27% of its managed assets being sourced from clients residing outside the United States.

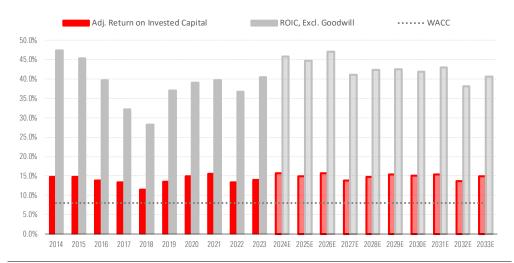
As we've generally given higher marks to the more broadly diversified asset managers, as they have shown an ability to offset flows out of one asset class, product set, or geographic region with flows into another asset class, product set, or geographic region when the former falls out of favor due to market conditions and/or investment performance, one would believe that AllianceBernstein would be a candidate for a narrow economic moat. While we have been willing to afford the firm a narrow moat in the past, predicated on the fact that it would eventually improve its operations enough to generate adjusted operating margins more on par with its peers, we don't think that things have improved enough to warrant an economic moat — especially with the company's ROICs likely to remain closer to our estimated cost of capital over the next decade than we would like to see from a narrow-moat firm in this industry (where operating results and ROICs can be volatile, as well as negatively influenced by dislocations in the equity and credit markets much as we saw during 2008-09, 2018, and 2022-23).

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we look more at adjusted ROICs with goodwill than without, which we feel is appropriate for all the US-based traditional asset managers, given they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. During 2014-23, AllianceBernstein generated adjusted ROICs including goodwill of 13.9% on average annually with a standard deviation of 1.1%, compared with an estimated WACC of 8.0%. Our 2024-33 forecast has the firm generating adjusted ROICs including goodwill of 14.9% on average with a standard deviation of 1.7%. While AB's past and projected ROICs are above our cost of capital estimate, something we expect from a company with a moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the

qualitative drivers of an economic moat than just the quantitative signals.

Exhibit 68 AllianceBernstein Historical and Projected Returns on Invested Capital — 2014-28E



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

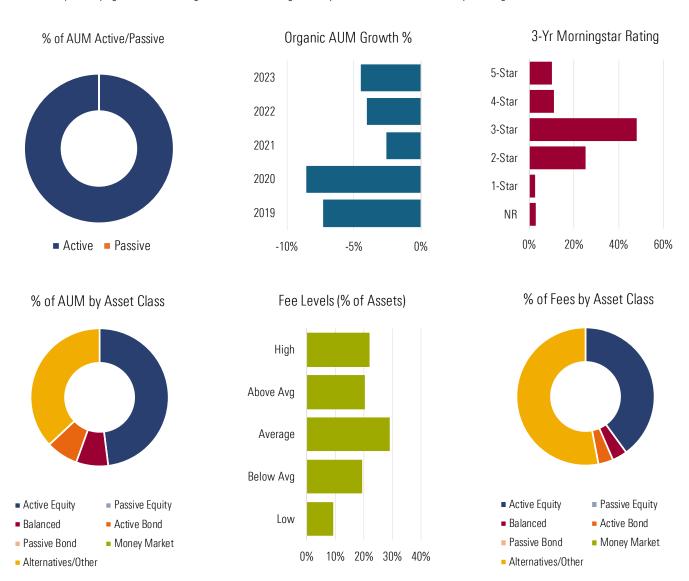
Affiliated Managers Group: Moved to No-Moat Rating on Diminished Intangible Assets

We've lowered our economic moat rating for Affiliated Managers Group to none from narrow after reassessing the firm's qualitative and quantitative attributes. Although the firm has some moat worthy characteristics—like a portfolio of well-respected boutique asset managers, well-forged distribution channels, and a track record of generating excess returns—these attributes and other intangibles continue to diminish, much as they do for the rest of the US-based traditional asset managers. We also don't see enough differentiation in the company's products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than their peers, blunt ongoing industry price compression, and/or lead to an improvement in adjusted operating margins.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? Unlike most of the US-based traditional asset managers, AMG does not involve itself directly in the management of investments. Instead, it looks to acquire equity stakes in successful boutique asset managers, receiving a fixed percentage of revenue in return. These affiliates continue to operate independently, with AMG providing strategic, operational, marketing, and distribution support. This arrangement leaves most of the benefits that typically come with running an asset-management business to accrue to the managers that AMG buys, with the company not even generating the typical cost synergies created by most mergers and acquisitions. That said, we think the firm's proficiency at investing in and maintaining relationships with well-respected boutique asset managers has provided AMG with at least one unique advantage. The company has been working with and adjusting its business model for three decades, building out a target investment universe that includes around 2,000 investment management firms (each with more than \$5 billion in AUM), including a select grouping of 100 core prospects, creating a pipeline of potential investments where AMG is generally viewed as the "buyer of choice" by the owners of these boutique asset managers.

We believe it would be difficult for other firms to replicate much of what AMG has created with its business model; those that have tried over the years have struggled to match AMG's scale and operating efficiency. We think this cements the company's position as the buyer of choice for many boutique asset managers. In addition, we remain impressed by AMG's buildout of its global distribution network, which has improved the impact the firm can have on asset stickiness. We think the global distribution network also makes AMG a more appealing partner for future affiliates, setting up a virtuous circle that the company can exploit to its advantage. Looking at its competitive positioning, though, we think AMG is facing a somewhat more competitive environment for investment stakes in boutique asset managers, which puts more weight on its ability to gather and retain assets with its existing operations.

Exhibit 69 Key Identifying Details and Ratings for Affiliated Managers Group's Product Portfolio Covered by Morningstar — June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

AMG is structurally set up to hold on to assets regardless of market conditions, being diversified across asset classes, investment strategies, distribution channel, and geographic reach. These and other "intangible assets" have allowed the firm to maintain an average annual retention rate of 81% during 2014-23, compared with an average annual rate of 78% for the group and 76% for the industry. The company has three main asset class segments: equity (48% of managed assets and 40% combined management and performance fees), fixed-income and balanced (16% and 8%), and alternatives/other strategies (37% and 53%). Having more than half of its \$701 billion in AUM at the end of June 2024, and close to half of firmwide EBITDA, coming from alternative strategies (which includes multi-strategy, market-neutral, and hedge products) and fixed-income and balanced strategies, AMG is not as heavily exposed as some of its peers to the impact that passive investing has had on actively managed equities.

While the firm's line up of active equity managers—which includes Artemis, Genesis, Harding Loevner, and Tweedy Browne in global and emerging-market equities (27% of AUM) and Frontier, River Road, Parnassus, and Yacktman in US equities (21%)—is impressive from a brand recognition perspective, its lack of consistency in its offerings and poorer performance have been a drag on organic AUM growth. On top of that, the firm (much like the rest of the industry) has seen ongoing challenges for quantitative offerings (like those offered by AQR Capital Management) from the growth of low-cost passive products.

Adding to the diversity of its managed assets, AMG provides investment management services to retail (29% of AUM and 37% of combined management and performance fees), institutional (53% and 26%), and high-net-worth (18% and 37%) clients, with the last two groups traditionally being stickier than retail investors. AMG is also one of the more global US-based traditional asset managers, with 36% of its managed assets (and 46% of combined management and performance fees) being sourced from clients residing outside the United States. Taken together, these attributes highlight enough differentiation in AMG's products and services to allow the firm to maintain an above average retention rate and limit the firm's exposure to the growth of low-cost passive products, which is why the firm received positive ratings for Product Breadth & Reach and Distribution Channel Strength, and a neutral rating for Passive & Active Capabilities. That said, given the poor track record of organic AUM growth, we had to go with a negative rating for Switching Costs Strength, even with all the intangible asset contributions.

Is the Firm Cost Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? AMG has fewer share classes of its long-term AUM (which excludes money market funds) with fees in the low to below average range than we'd like to see, given that most of these funds are active equity strategies, which leaves it exposed to ongoing fee compression — especially in the retail channel (which accounts for 48% of AUM and 40% combined management and performance fees) where the US-based traditional asset managers are feeling more pressure to make concessions to maintain shelf placement. That said, the company's overall fee realization rate (which includes both management and performance fees) has run contrary to what we have seen from other firms, increasing 1.4% on average annually during 2019-23, but declining at a 3.7% CAGR during 2014-23, compared with our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers.

Unfortunately, AMG does not disclose fee rates by asset class—only by distribution channel—with the firm seeing slight mix shift in its AUM by distribution channel, with retail, institutions, and high-networth clients, respectively, accounting for 29%, 53%, and 18% of managed assets at the end of 2023, compared with 27%, 59%, and 18% at the end of 2018. During that time, retail fees increased 2.6%, or 0.5% on average annually, which was better than our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers. High-net-worth fees, which are generally expected to fall at lower rates than retail fees, increased 1.9% on average annually during 2019-23 (no doubt heavily influence by performance fees, which are not as prolific with retail fund offerings). That leaves institutional account fees, which rose 1.3% on average annually during the past five years, which we suspect was due to the onboarding of several new boutique asset managers, as well as offloading stakes in a struggling BlueMountain (hedge funds) and Veritable (registered investment advisor).

Ultimately, though, when we ask ourselves if AMG offers anything differentiated enough with its products and services that would allow the firm to get a better price than their peers or to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—our conclusion is a bit more mixed. This explains our negative rating for Fee Pricing Power (due to the heavier exposure to fee compression from its large active equity platform) and neutral rating for Fee Diversity & Exposure.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given AMG's lack of passive strategies in its portfolio, we move on to the firm's active strategies. AMG's current firmwide adjusted Morningstar Rating of 3.04 stars is below the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 11% and 10% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were somewhat better, with 34% and 12% of Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

Looking at reported performance relative to benchmarks and/or peers, AMG's results still look weak, with 40% and 53% of its active global equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, while 46% and 51% of its active US equity fund AUM was outperforming at the end of the same period. Performance results for the firm's liquid alternatives segment looked good, though, with 76% and 88% of its AUM outperforming on a three- and five-year basis, respectively, at the end of June 2024. As for AMG's private-markets segment, 86% of its latest vintage, and 86% of its last three vintages, were outperforming at the end of the second quarter.

As for the company's Success Ratios, three- and five-year Risk Adjusted Success Ratios of 42.7 and 29.8, respectively, were well below the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). These results were more reminiscent of what we saw for Invesco, Franklin Resources, Federated Hermes, and AllianceBernstein—each of which received negative ratings for Performance & Reputation. With investors less willing to pay up for

products when they believe the performance or investment outcomes do not justify the fees, the impetus is on active managers to improve the disparity between their performance and benchmarks.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency? AMG's long-term strategy has focused on acquiring 50%-60% stakes in small and midsize boutique asset managers as opposed to rolling them up into their own operations. This arrangement not only leaves the running of these boutique asset managers with the selling managers, but leaves enough equity with these managers to keep them motivated. New investments, which are the most accretive way to deploy capital, tend to be lumpy in nature and are influenced as much by the state of the markets as they are the willingness of boutique managers to sell stakes in their firms. AMG has identified around 2,000 investment managers (each with more than \$5 billion in AUM) that could end up in its target universe (of some 500 independent firms) and currently maintains active relationships with a select grouping of around 100 core prospects. The firm prefers to pay 8-10 times cash flow for its equity investment stakes.

Over the past couple of decades, AMG has been more focused on asset-management firms operating in some of the fastest-growing and attractive investment niches available — global and international markets (with a focus on emerging and developing markets) and alternative assets. Looking at deals that have been completed since the 2008-09 global financial crisis, investments in firms like Harding Loevner, Value Partners Group, Trilogy Global Advisors, and Abax Investments have enhanced AMG's position in emerging and developing markets, while stakes in companies like Pantheon, Artemis, Veritas, Systematica, Comvest Partners and (more recently) Peppertree Capital Management have added to its ability to cater to investors looking for alternative investment opportunities. The company also selectively invests in higher-quality active equity managers, like Yacktman (in 2012) and Parnassus (2021), where it feels the product offering is unique, and the investment performance is impressive and repeatable. AMG has also built out a global distribution platform to complement the sales efforts of its affiliates.

We commend the firm for these efforts, but the proof is in the pudding. Our neutral rating for Culture & Stewardship highlights the company's unique operating structure and focus on higher-quality boutiques with a presence in global and international markets and alternative assets, offset somewhat by the fact that AMG has little control over its affiliates (including their investment strategies and performance). Meanwhile, our negative rating for Capital Investment Efficiency highlights the fact that AMG's strategy puts it at the mercy of the markets and the selling managers. New investments, which are the most accretive way to deploy capital, tend to be lumpy in nature and are influenced as much by the state of the markets as they are the willingness of boutique managers to sell stakes in their firms at the price point AMG is willing to pay. The company also faces a more competitive environment for investment stakes in boutique managers, which puts more weight on its ability to gather and retain assets with its existing operations (which has been suspect of late). We also feel that AMG's foray into wealth management firms the past decade, which seemed to be more of a side project than a whole-hearted effort to replicate its boutique asset management model with wealth managers, was ill advised.

What Are the Key Points Against a No-Moat Rating?

Our pre-moat argument for AMG (noting that we first awarded a moat to the firm in 2018 after having it rated no-moat for more than a decade) was that the company's operating structure—where it does not involve itself directly in the management of investments but instead acquires equity stakes in successful boutique asset managers—left it with little control over its affiliates. Given its M&A strategy, the company also has not generated the cost synergies typically created by most deals (given that it purchases just over a majority equity stake as opposed to acquiring the entire operations) and has had little control over its affiliates investment strategies and performance (which makes turning around bad bouts of performance harder to pull off). We pushed for a narrow moat, though, on the belief that AMG's higher exposure to alternative strategies and institutional clients would leave it well positioned for future success, especially with its global distribution model providing exposure for its network of boutique asset managers. We also felt the firm's proficiency at investing in and maintaining relationships with well-respected boutique managers provided it with one discernable advantage.

But poor investment performance, greater competition from private capital funds for deals, and higher operating costs than we were anticipating have soured our opinion. Despite scoring well in the Differentiation category—garnering positive ratings for Product Breadth & Geographic Reach and Distribution Channel Strength, as well as a neutral rating for Passive & Active Capabilities—the firm hasn't had a strong enough Investment Performance & Manager Reputation track record to generate solid organic AUM growth (despite having a retention rate well above the industry average). This leads us to believe that the firm doesn't have enough differentiated products or services in their arsenal that would allow them to have either Fee Pricing Power or broad enough Fee Diversity & Exposure to insulate it from fee compression (brought on by the continued growth of low-cost passive products). On top of that, a neutral rating for Culture & Stewardship gets offset by negative rating for Capital Investment Efficiency, given the impact of greater competition from private capital funds on its business model.

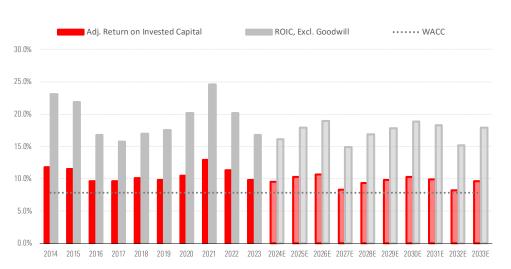


Exhibit 70 Affiliated Managers Group Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we look more at adjusted ROICs with goodwill than without, which we feel is appropriate for all the US-based traditional asset managers, given they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach. During 2014-23, AMG generated adjusted ROICs including goodwill of 10.7% on average annually with a standard deviation of 1.1%, compared with an estimated WACC of 7.8%. Our 2024-33 forecast has AMG generating adjusted ROICs including goodwill of 9.6% on average with a standard deviation of 1.8%. While AMG's past and projected ROICs are above our cost of capital estimate, something we expect from a company with a moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of an economic moat than quantitative signals.

Janus Henderson Group: Moved to No-Moat Rating on Diminished Intangible Assets

We've lowered our economic moat rating for Janus Henderson to none from narrow after reassessing the firm's qualitative and quantitative attributes. Although the firm has some moat worthy characteristics—like a well-known, repeatable investment strategies, and a track record of generating excess returns—these attributes and other "intangible assets" continue to diminish, much as they do for the rest of the US-based traditional asset managers. At this point, we don't see anything differentiated enough in the company's products or services that would allow the firm to improve retention rates and/or organic AUM growth, let alone get better pricing than their peers, blunt ongoing industry price compression, and/or lead to an improvement in adjusted operating margins.

Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? Janus Henderson is not fully set up to hold on to assets regardless of market conditions—being less diversified than we think the firm should be across asset classes, investment strategies, distribution channels, and geographic reach—these attributes and its other "intangible assets" have not been enough to keep the firm's retention rate above the industry or group averages. During 2014-23, Janus Henderson's average annual retention rate was 74%, lower than the average annual rate of 78% for the group and 76% for the US industry (and an even higher retention rate for the UK market). The company's four main asset classes are skewed more toward equities (62% of managed assets and 68% of fees), with fixed-income (21% and 12%), balanced (14% and 16%) and alternatives/other strategies (3% and 4%) accounting for the remainder. Janus Henderson has only a miniscule amount of passive exposure.

On the distribution front, the firm is more heavily weighted toward retail investors, with 55% of Janus Henderson's \$361 billion in managed assets at the end of June 2024 coming through the retail intermediary channel, 24% from self-directed investors, and 21% sourced from institutional clients. The firm does get some credit for being one of the more global US-based traditional asset managers, with 39% of managed assets sourced from clients residing in EMEA and Latin America (29%), primarily through its Henderson operations, and the Asia-Pacific region (10%), with most of the AUM coming from the firm's Daiichi Life Holdings relationship in Japan.

Exhibit 71 Key Identifying Details and Ratings for Janus Henderson Group's Product Portfolio Covered by Morningstar—June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Given its smaller scale relative to industry giants—like BlackRock (\$10.646 trillion in AUM), Invesco (\$1.716 trillion), Franklin Resources (\$1.647 trillion), and T. Rowe Price (\$1.569 trillion)—its heavier exposure to equities and retail investors, and lacking enough differentiation in its products and services to allow the firm to maintain an above average retention rate, as well as lessen the firm's exposure to the growth of low-cost passive products, Janus Henderson received neutral ratings for Product Breadth & Geographic Reach and Passive & Active Capabilities (owing to better than average performance), but was rated negative for Distribution Channel Strength and Switching Costs Strength.

Is the Firm Cost-Competitive with Limited Exposure to the Growth of Low-Cost Passive Products? Janus Henderson has nearly half its share classes with fees in the low to below average range, which we like to see given that most of its funds are actively managed, leaving the firm exposed to ongoing fee compression—especially in the retail channel (78% of AUM and 85% of fees) where the US-based traditional asset managers are feeling more pressure to make concessions to maintain shelf placement. That said, the company's management fee realization rate (which excludes performance fees) has run contrary to what we've seen from other firms, increasing 0.5% on average annually during 2019-23, but declining at a 0.2% CAGR during 2017-23 (truncated due to the Janus Henderson merger), compared with our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers.

Unfortunately, Janus Henderson does not disclose fee rates by asset class, distribution channel, or geography. What we have seen, though, is a bit of a mix shift at the firm the past five years, with retail intermediary, self-directed, and institutional clients, respectively, accounting for 55%, 23%, and 22% of managed assets at the end of 2023, compared with 44%, 17%, and 39% at the end of 2018. Much of the shift in institutional AUM (which tends to generate meaningfully lower fees) was tied to Janus Henderson's 2022 offloading of its poor performing Intech quantitative equities subsidiary, which had been a major contributor to firmwide outflows during 2017-21.

Ultimately, though, when we ask ourselves if Janus Henderson offers anything differentiated enough with its offerings that would allow the firm to get a better price than peers or to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—we come up short. This informs our negative ratings for Fee Pricing Power and Fee Diversity & Exposure.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given the company's lack of passive strategies in its portfolio, we move on to Janus Henderson's active strategies. The firm's current firmwide adjusted Morningstar Rating of 3.40 stars is above the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 31% and 23% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were slightly less impressive, with 45% and 5% of Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

Looking at reported performance relative to benchmarks and/or peers, Janus Henderson's results are more mixed, with 53% and 54% of its active equity fund AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter, while 72% and 83% of its active bond-fund AUM was outperforming at the end of the same period. The reported equity results were on par with most of the firm's large-cap active equity heavy peers—Invesco, Franklin Resources, and T. Rowe Price—but below the stellar results being put up by Cohen & Steers. The company's fixed-income results, meanwhile, were more in line with BlackRock, which we feel is the standard for active bond-fund performance, with Invesco, Franklin Resources, T. Rowe Price, and AllianceBernstein not too far behind

them. As for Janus Henderson's Success Ratios, three- and five-year Risk Adjusted Success Ratios of 52.0 and 47.0, respectively, were more on par with the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). These results were more reminiscent of what we saw for BlackRock and T. Rowe Price—each of which received neutral ratings for Performance & Reputation. With investors less willing to pay up for products or solutions when they believe the performance and investment outcomes do not justify the fees, the impetus is on active managers to improve the disparity that exists between their performance and that of their benchmarks.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency?

Janus Henderson's long-term strategy, much like it's peers, has been focused on investing in the business, maintaining financial strength and flexibility, returning a substantial portion of earnings to shareholders as share repurchases and dividends, and (when it makes sense) acquiring businesses that fill either a product or distribution hole. In our view, better cultures and internal investment processes tend to lead to better and more consistent investment performance, organic growth, and relatively little employee turnover, generally allowing them to perform better than companies that are operating with less cohesive and/or inconsistent organizations. When growth is harder to come by, which has been the case for most of the traditional US-based asset managers, we expect firms to take a variety of actions, including overhauling their leadership (which Janus Henderson did in 2022-23) or their investment processes (with the firm looking at not only protecting and growing the core business but amplifying existing capabilities as well as diversifying into new areas), buying a competitor with better performance or greater product, channel, or geographic diversity, or by branching out more aggressively into less-exposed strategies (with fee and margin compression the norm for traditional active equity strategies).

We've been encouraged by Janus Henderson's more recent initiatives, as well as the introduction of scorecards to measure progress on strategic initiatives that include new investment vehicles (like active and passive ETFs and separate accounts). We also applaud the firm's taking of a 55% stake in (with a defined path for the firm to acquire 100% of) Victory Park Capital Advisors, a global private credit manager with around \$6 billion in AUM. Janus Henderson's push into alternatives is not all that surprising, as it highlights the drive on the part of most of the US-based traditional active asset managers to find ways to offset the fee pressures coming from low-cost index-based products, especially in the large-cap equity category, which makes up close to 60% (38%) of the company's equity (total) AUM. We commend these efforts, which help to inform our neutral ratings for Culture & Stewardship and Capital Investment Efficiency at the firm.

What Are the Key Points Against a No-Moat Rating?

For a return to a narrow moat rating on Janus Henderson, we'd need to see not only an improvement in the company's retention rate, which was 74% on average annually during 2014-23, lower than the average annual rate of 78% for the group and 76% for the US industry (and an even higher retention rate for the UK market), but improvement in most of the "intangible assets" that support the switching cost advantages inherent in the firm's business model. At this point, Janus Henerson is not as diversified as is needs to be from an asset class perspective, with 62% of managed assets and 68% of management fees coming from equities, which are more exposed to the ongoing growth of low-cost passive products.

And while the company has a strong fixed-income business, which was built from the ground up, it would benefit from more scale (especially in the institutional channel).

Janus Henderson is, however, more reliant on retail investors than we'd like to see, with 55% of managed assets coming through the retail intermediary channel and 24% coming from self-directed investors. While it would also be useful for the firm to bulk up in size, there are few options available that would allow Janus Henderson to jump closer to the \$1 trillion in AUM mark without taking on a lot of unwanted baggage (read: large-cap equity heavy firms with an overreliance on the retail channel for distribution). With Nelson Peltz and his Trian Partners investment firm owning 20.0% of the company's shares, and the activist investor angling for Janus Henderson to do more deals to scale up and be more competitive with peers like Invesco, Franklin Resources, and T. Rowe Price, we think that it is a big ask for the firm to find acquisitions that not only add scale but differentiated capabilities in the environment that the US-based traditional asset managers currently find themselves in.

Exhibit 72 Janus Henderson Group Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which we think is appropriate for all the US-based traditional asset managers, given that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do going forward. During 2014-23, Janus Henderson generated adjusted ROICs including goodwill of 12.2% on average annually with a standard deviation of 2.5%, compared with an estimated WACC of 8.6%. Our 2024-33 forecast has AMG generating adjusted ROICs including goodwill of 9.4% on average with a standard deviation of 1.5%. While Janus Henderson's ROICs have historically been above our cost of capital estimate, something we'd expect from a company with an economic moat, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of a moat than quantitative signals.

Cohen & Steers: Maintained Narrow Moat Rating Despite Wide-Moat Characteristics

We've left our economic moat rating for Cohen & Steers at narrow after reassessing the firm's qualitative and quantitative attributes. Although the firm has some wide-moat worthy characteristics—like a well-respected brand, well-forged distribution ties, repeatable investment strategies, high retention rates and an impressive track record of excess returns—we've have found that firms that are heavily skewed to one particular asset class or category, as Cohen & Steers is, tend to have a more challenging time generating consistent returns. The company's product mix is heavily tied to REITs, with domestic and global/international REIT-specific funds accounting for close to two thirds of Cohen & Steers' \$81 billion of AUM at the end of June 2024. While the firm has made strides to diversify its product mix, it lacks the scale necessary in its non-REIT offerings to overcome the concentration risk that exists in its portfolio.

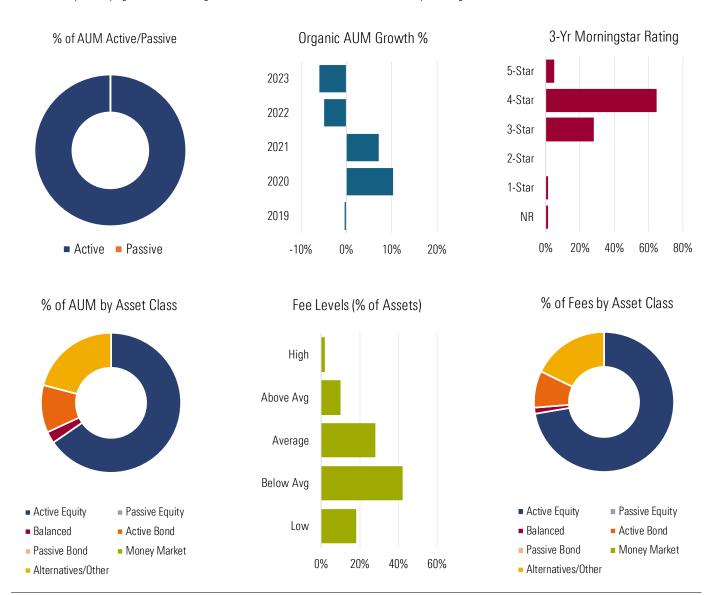
Does the Asset Manager's Differentiation Provide It With More Strengths Than Weaknesses? While Cohen & Steers is not structurally set up to hold on to assets regardless of market conditions—lacking the kind of diversification across asset classes, investment strategies, distribution channels, and geography that we believe provide support to the switching costs advantage inherent in the assetmanagement industry—there are plenty of other "intangible assets" that have allowed the firm to maintain an average annual retention rate of 86% during 2014-23, compared with an average annual rate of 78% for the group and 76% for the industry.

The company's product mix is heavily tied to REITs, with domestic and global/international REIT-specific funds accounting for close to two thirds of Cohen & Steers' \$81 billion in AUM at the end of June 2024. The firm's asset-class segments are composed of US real estate (48% of managed assets), global/international real estate (16%), global listed infrastructure (11%), preferred securities (22%), and other strategies (3%). While the firm has made strides toward greater diversification, it has yet to gain the scale necessary in its non-REIT offerings to overcome the concentration risk in its portfolio.

Cohen & Steers does garner some credit, though, for its geographic diversification, with 22% (13%) of its AUM (and total revenue) coming from outside of the US—with Europe, the Middle East, and Africa accounting for 5% (4%), Japan at 12% (6%), and the rest of the Asia-Pacific region accounting for the remainder. From a distribution perspective, the firm garners 40% (26%) of its AUM (management fees) from institutional relationships, which can be stickier than retail assets (46% of AUM and 53% of fees).

Cohen & Steers also generates 14% (21%) of its AUM (management fees) from closed-end funds, which differ from open-end funds in that they cannot be redeemed back to the firm, providing the company with a greater hold over this portion of its managed assets. These attributes have provided Cohen & Steers with a slightly higher degree of asset stickiness than most of its peers in stable and rising markets, which is why the firm received a positive rating for Passive & Active Capabilities, and neutral ratings for Product Breadth & Reach and Distribution Channel Strength. That said, the concentration risk in its investment portfolio ultimately inhibits the firm from developing more than a narrow moat.

Exhibit 73 Key Identifying Details and Ratings for Cohen & Steers' Product Portfolio Covered by Morningstar—June 2024



Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

Is the Firm Cost-Competitive With Limited Exposure to the Growth of Low-Cost Passive Products? Cohen & Steers has half of its share classes with fees in the low- to below-average range, which we like to see, given that most of its funds are actively managed, which leaves the firm exposed to ongoing fee compression—especially in the retail channel (which accounts for 46% of AUM and 53% of fees) where the US-based traditional asset managers are feeling more pressure to make concessions to maintain shelf placement. That said, most of the company's products are in niche categories where passive products have not made the same inroads as large-cap equities. As a result, Cohen & Steers' overall fee realization rate has run contrary to what we've seen from other firms, increasing 0.4% on average

annually during 2019-23, but declining at a 0.9% CAGR during 2014-23, compared with our forecast 3%-5% annual fee rate declines for large-scale traditional asset managers.

Unfortunately, Cohen & Steers does not disclose fee rates by asset class—only by distribution channel—with the firm seeing slight mix shift in its AUM by distribution channel, with open-end fund, closed-end fund, and institutional AUM, respectively, accounting for 45%, 13%, and 42% of managed assets at the end of 2023, compared with 39%, 14%, and 47% at the end of 2018. During that time, retail open-end fees declined 4.4%, or 0.9% on average annually, which was better than our forecast for 3%-5% annual fee rate declines for large-scale traditional asset managers. Closed-end fund fees, which are generally stable, increased 0.7% on average annually during 2019-23 (most likely due to the launch of several new funds). As for institutional account fees (which we assume includes both management and performance fees), they increased 7.1%, or 1.4% on average annually, during 2019-23.

Ultimately, when we asked ourselves if Cohen & Steers offered anything differentiated enough with its products and services that would allow the firm to get a better price than their peers or allow them to operate in a segment where price competition was not an issue—including circumstances where there was either no meaningful price competition/fee compression (like alternatives) or where price competition/fee compression was not impactful to margins (passive products)—our conclusion was that they did but that the overhang of the threat from passive (which has yet to scale up meaningfully in the categories where the firm competes) lingered. This explains our neutral ratings for both Fee Pricing Power and Fee Diversity & Exposure for Cohen & Steers.

Has Investment Performance Been Consistent and Driven by Repeatable Investment Processes? Given the company's lack of passive strategies in its portfolio, we move on to Cohen & Steers' active strategies. The firm's current firmwide adjusted Morningstar Rating of 3.70 stars is well above the group average of 3.22 stars, as well as the industry average of 3.06 stars. At the end of the second quarter of 2024, the company had 65% and 5% of its Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, on a three-year basis, compared with 26% and 12% for the industry. On a five-year basis, results were slightly better, with 70% and 4% of Morningstar assessed open-end fund AUM rated 4 and 5 stars, respectively, compared with 27% and 12% for the industry.

Looking at reported performance relative to benchmarks and/or peers, Cohen & Steers' results are stellar, with 96% and 97% of its total AUM outperforming on a three- and five-year basis, respectively, at the end of the second quarter. As for the company's Success Ratios, three- and five-year Risk Adjusted Success Ratios of 67.0 and 64.0, respectively, were well above the group average (median) of 48.9 (49.0) and 42.8 (46.0), as well as the industry average (median) of 49.6 (47.4) and 45.5 (46.5). These results stand out in an environment where investors have been less willing to pay up for products or solutions when they believe the performance or investment outcomes do not justify the fees. Hence, the positive rating for Cohen & Steers for Investment Performance & Manager Reputation.

Is the Firm's Business Model Adaptable and Committed to Capital Investment Efficiency? Cohen & Steers' long-term strategy has focused on investing in the business, maintaining financial strength and flexibility, returning a substantial portion of earnings to shareholders as share repurchases and dividends, and (when it makes sense) acquiring businesses that fill either a product or distribution hole. In our view, better cultures and internal investment processes in the asset-management business tend to lead to better and more consistent investment performance, organic growth, and relatively little employee turnover. When growth is harder to come by, which has been the case for many of the more traditional US-based asset managers, we expect firms to take a variety of actions, including overhauling their leadership or their investment processes, buying a competitor with better performance or greater product, channel, or geographic diversity, or branching out more aggressively into less-exposed

strategies (with fee and margin compression being the norm for traditional active equity strategies).

As such, we look favorably on Cohen & Steers fomenting of a private real estate investment strategy to make its portfolio more competitive with private real estate investment vehicles offered by alternative-asset managers and other traditional asset managers, even if it increases ongoing operating costs. That said, the firm will still face stiff competition in this part of the market, given that the private-market incumbents have not only increased their share of the institutional market but have made major inroads with high-net-worth and private wealth clients. That said, it looks like Cohen & Steers is far more focused on developing these products in house as opposed to acquiring an operator with an established track record and distribution reach. While we commend the firm for this effort, the proof is in the pudding. In the meantime, we've left our positive rating for Culture & Stewardship and our neutral rating for Capital Investment Efficiency in place for Cohen & Steers.

What Are the Key Points Against a Narrow Moat Rating?

If we were to award a moat rating other than narrow, it would not be a rating of none. Cohen & Steers has too many positive attributes and continues to generate above-average levels of adjusted operating income, as well as a meaningful spread between its ROICs and our estimate of the company's cost of capital. While the firm has struggled with organic AUM growth of late, much of that is tied to where we are in the rate cycle, with the firm's switching costs advantage relative to peers still in place. The company's average annual retention rate of 80% during 2014-23 was comfortably above the industry's rate of 76%, and the average rate of 78% for the group. While the firm has made some strides toward greater diversification—with domestic and global/international REITs accounting for close to two thirds of Cohen & Steers' AUM—it has yet to gain the scale necessary in its non-REIT offerings—global listed infrastructure (11% of managed assets), preferred securities (22%), and other strategies (3%)—to overcome the somewhat higher level of concentration risk that exists in its portfolio.

Cohen & Steers does garner some credit, though, for its geographic diversification and distribution reach. Performance has also been stellar, with the company's investment processes being both adaptable and repeatable. All of this has provided Cohen & Steers with a slightly higher degree of asset stickiness than its peers. In an environment where investors are expected to seek providers of passive products, as well as active asset managers that have greater scale, established brands, solid long-term performance, and reasonable fees, we like how Cohen & Steers is positioned. That said, the firm does

have many of the attributes of a wide-moat firm. However, we've generally found that asset managers with business models that are more heavily skewed toward one particular asset class or category can have a more difficult time generating consistent returns for investors, hence the narrow moat rating. This also aligns more with our narrow moat rating on T. Rowe Price.

Adj. Return on Invested Capital

ROIC, Excl. Goodwill

WACC

100.0%

80.0%

40.0%

20.14 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024E 2025E 2026E 2027E 2028E 2029E 2030E 2031E 2032E 2033E

Exhibit 74 Cohen & Steers Historical and Projected Returns on Invested Capital — 2014-28E

Source: Company reports, Morningstar Research Services. Data as of Oct. 4, 2024.

What Are the Key Factors to Consider Regarding Returns on Invested Capital?

When looking at ROICs, we tend to look more at adjusted ROICs with goodwill than without, which, we think, is appropriate for all the US-based traditional asset managers. The reason is that they've all relied on acquisitions to fill in product holes and/or expand their distribution or geographic reach, and which we assume they will continue to do. During 2014-23, Cohen & Steers generated adjusted ROICs including goodwill of 76.1% on average annually with a standard deviation of 18.6%, compared with an estimated WACC of 9.0%. Our 2024-33 forecast has AMG generating adjusted ROICs including goodwill of 44.7% on average with a standard deviation of 4.6%. Cohen & Steers' ROICs are significantly above our cost of capital estimate, something we expect from a company with an economic moat. However, returns for asset-light firms like the US-based traditional asset managers can be misleading, which is why we focus more on the qualitative drivers of a moat than the quantitative signals.

Research Methodology for Valuing Companies

Overview

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. We think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (mines, for example), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

Morningstar's Equity Research Group ("we," "our") believes that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth—or fair value estimate in Morningstar terminology. Five-star stocks sell for the biggest risk-adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth.

Four key components drive the Morningstar rating:

- our assessment of the firm's economic moat.
- our estimate of the stock's fair value.
- our uncertainty around that fair value estimate.
- ▶ the current market price.

This process ultimately culminates in our single-point star rating.

Economic Moat

The Morningstar Economic Moat Rating is a structural feature that Morningstar believes positions a firm to earn durable excess profits over a long period of time, with excess profits defined as returns on invested capital above our estimate of a firm's cost of capital. The economic moat rating is not an indicator of the investment performance of the investment highlighted in this report. Narrow-moat companies are those that Morningstar believes are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those that Morningstar believes will earn excess returns for 10 years, with excess returns more likely than not to remain for at least 20 years. Firms without a moat, including those that have a substantial threat of value destruction-related risks related to environmental, social, and governance; industry disruption; financial health; or other idiosyncratic issues, are more susceptible to competition. Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Fair Value Estimate

Each stock's fair value is estimated by using a proprietary discounted cash flow model, which assumes that the stock's value is equal to the total of the free cash flows of the company is expected to generate in the future, discounted back to the present at the rate commensurate with the riskiness of the cash flows. As with any DCF model, the ending value is highly sensitive to Morningstar's projections of future growth.

Fair Value Uncertainty

The Morningstar Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the fair value estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, exposure to material ESG risks, and other company-specific factors. Based on these factors, analysts classify the stock into one of several uncertainty levels: Low, Medium, High, Very High, or Extreme. Our recommended margin of safety—the discount to fair value demanded before we'd recommend buying or selling the stock—widens as our uncertainty of the estimated value of the equity increases.

Market Price

The market prices used in this analysis and noted in the report come from exchanges on which the stock is listed, which we believe is a reliable source.

Morningstar Rating for Stocks

The Morningstar Rating for Stocks is a forward-looking, analyst-driven measure of a stock's current price relative to the analyst's estimate of what the shares are worth. Stock star ratings indicate whether a stock, in the equity analyst's educated opinion, is cheap, expensive, or fairly priced. To rate a stock, analysts estimate what they think it is worth (its "fair value"), using a detailed, long-term cash flow forecast for the company. A stock's star rating depends on whether its current market price is above or below the fair value estimate. Those stocks trading at large discounts to their fair values receive the highest ratings (4 or 5 stars). Stocks trading at large premiums to their fair values receive lower ratings (1 or 2 stars). A 3-star rating means the current stock price is close to the analyst's fair value estimate.

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Please note that investments in securities are subject to market and other risks, and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not continue in the future and is no indication of future performance. A security investment's return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost.

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