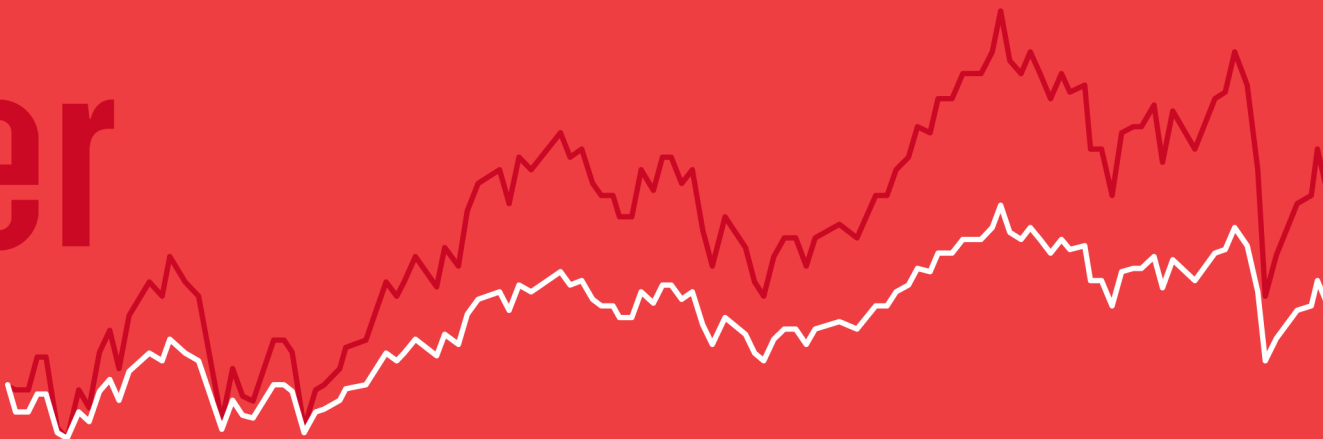




Silver



2024 US Fund Fee Study

A close look at notable fund fee trends.



Gold



Bronze



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Important Disclosure
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Executive Summary

Fund Fees Declined Again in 2024

In 2024, the average expense ratio paid by fund investors was less than half of what it was two decades ago. Between 2005 and 2024, the asset-weighted average fee fell to 0.34% from 0.83%. Investors have saved billions in fund fees as a result.

Three factors played a role in lowering fees:

- Investors are increasingly aware of the importance of minimizing investment costs, which has led them to heavily favor lower-cost funds.
- Competition among asset managers has led many to cut fees.
- Evolution in the economics of advice has also played a central role. The move toward fee-based models of charging for financial advice has been a key driver of the shift toward lower-cost funds, share classes, and fund types—most notably exchange-traded funds.

Fund fees are not falling as fast as they used to, though. Two factors are behind this slowing rate of change:

- Fees of prominent index mutual funds and ETFs are approaching a floor, with many already charging less than 0.05%.
- The emergence of active and alternative ETFs contributes to higher-priced ETF launches than previously observed.

Key Takeaways

- We estimate that investors saved nearly USD 5.9 billion in fund expenses last year as the asset-weighted average expense ratio for all US mutual funds and ETFs ticked down to 0.34% in 2024 from 0.36% in 2023.
- The asset-weighted average fee for passive funds fell by 1.5% in 2024 to remain rounded to 0.11%.
- The equal-weighted average fee—which indicates what funds charge irrespective of where assets are held—fell again after rising slightly in 2023. The equal-weighted average fee for all funds declined to 0.92% in 2024 from 0.94% in 2023.
- Exchange-traded funds are substantially cheaper than mutual funds. Both the equal-weighted and asset-weighted average ETF fee measured less than half of the fee charged by mutual funds, respectively.
- The fee gap between new mutual funds and new ETFs has narrowed. Since 2015, the equal-weighted average fee for new ETFs rose by 11% while new mutual funds got 22% cheaper. Newly launched ETFs are still less expensive than new mutual funds, however.
- Vanguard remains the lowest-cost provider. Its 0.07% asset-weighted average fee was the lowest among all providers in 2024.
- Low-cost providers tend to also be the largest firms. Four of the five largest asset managers were among the five cheapest providers in 2024, ranked by asset-weighted average fee.
- The gap in flows for cheap and expensive funds widened substantially in 2024. The cheapest quintile of funds saw net inflows of USD 930 billion, while the remaining 80% shed USD 254 billion in outflows. This USD 1.18-trillion difference was the second-largest gap in the last 20 years.
- The evolution of the economics of the advice business is shaping flows and fees. Looking through the lens of Morningstar's service-fee arrangement attribute, bundled share classes have been in outflows for 15 straight years. Fee-based advisors prefer unbundled funds as they make room for the price of advice. Unbundled funds have seen net inflows for the last 20 years.
- Strategic-beta funds are an alternative to higher-cost actively managed funds. In 2024, the asset-weighted average fee for strategic-beta funds was 0.16%, higher than the figure for traditional index funds (0.10%) but significantly lower than for active funds (0.59%).

Trends in Fund Fees Paid by Investors

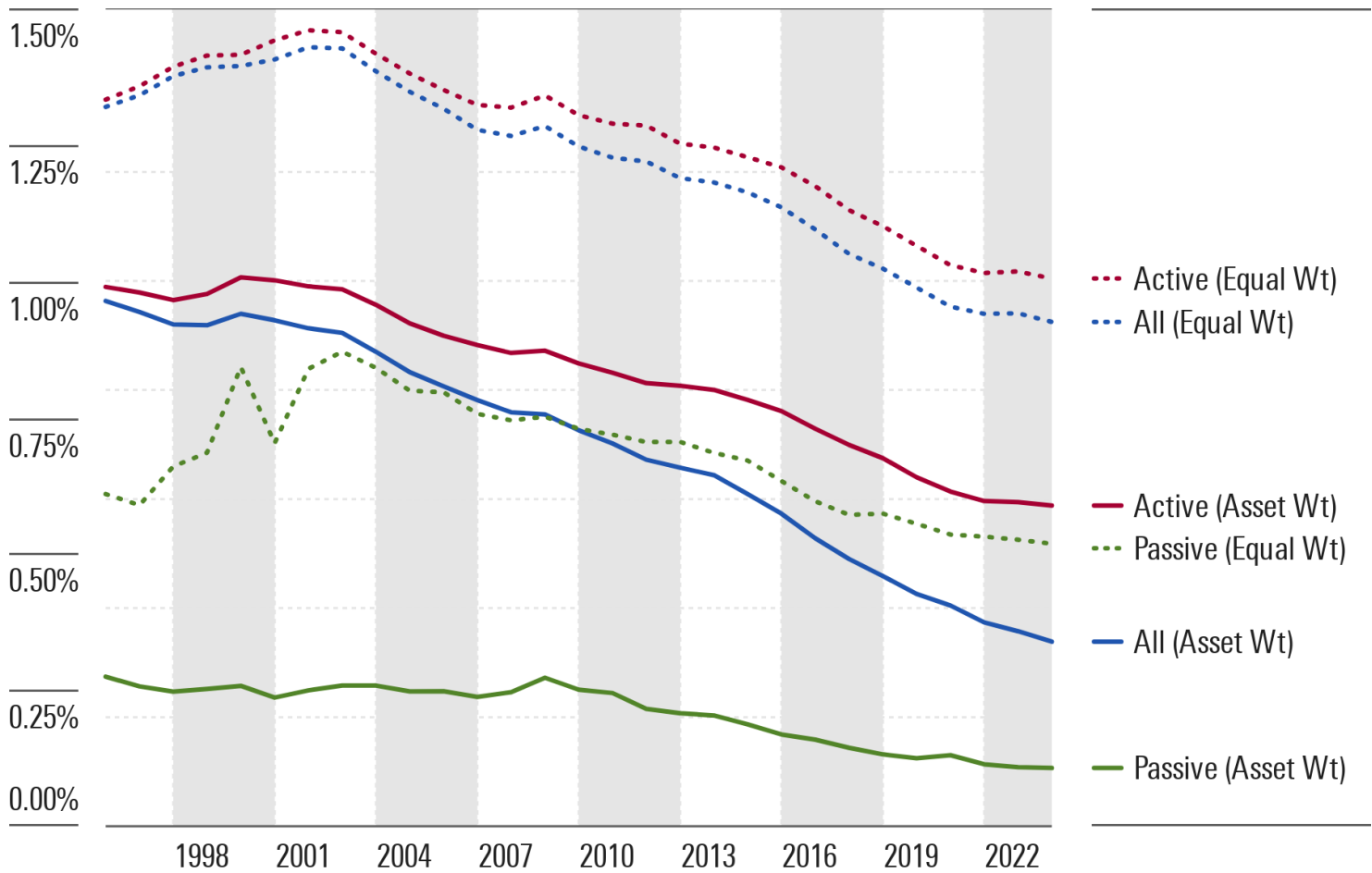
A look at asset-weighted average fund fees.

Fund Fees Decline Again

Investors paid lower fund expenses in 2024 than ever before. Our study of US open-end mutual funds and exchange-traded funds found the asset-weighted average expense ratio was 0.34% in 2024, a 5.3% decline from 2023.

We estimate that investors saved nearly USD 5.9 billion in fund expenses last year. Any fee decline is a big win for investors because fees compound over time and diminish returns.

Exhibit 1 Fund Fees Edge Lower



The Fee Squeeze Shows Signs of Slowing

In this study, we examine the trend in fund expenses paid by investors using the asset-weighted average expense ratio. The asset-weighted average better represents the average costs borne by fund investors than an equal-weighted average because it approximates what investors paid in fees, on average, for the funds they invested in rather than what funds charged, on average. For example, the asset-weighted average expense ratio for active US equity funds was 0.60% in 2024, versus 1.02% when calculating an equal-weighted average for this group. Funds with expense ratios above 1.02% accounted for a small portion of assets invested in active US equity funds at the end of 2024. The equal-weighted average does not reflect most investors' experience.

Declines in asset-weighted average fees were more muted than in previous years, but the average investor still paid fewer fund fees in 2024 than in 2023. Lower asset-weighted fees are possible thanks to a combination of inflows into low-cost funds, outflows from more costly ones, fee cuts, and relative underperformance by more-expensive funds. In aggregate, last year's asset-weighted expense ratios for actively managed and passive funds declined just 1% and 1.5%, respectively, from 2023.

Exhibit 2 Investors' Average Fund Costs by Asset-Weighted Average Fees

	Asset-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	0.67	0.65	0.63	0.61	0.60	0.09	0.09	0.08	0.08	0.08
Sector Equity	0.81	0.80	0.79	0.80	0.81	0.27	0.27	0.25	0.24	0.23
International Equity	0.76	0.73	0.71	0.69	0.67	0.18	0.18	0.18	0.17	0.16
Taxable Bond	0.53	0.47	0.46	0.47	0.48	0.10	0.09	0.08	0.08	0.08
Muni Bond	0.47	0.46	0.44	0.46	0.48	0.15	0.14	0.13	0.11	0.11
Allocation	0.61	0.59	0.58	0.58	0.56	0.42	0.40	0.40	0.44	0.48
Alternative	1.50	1.35	1.34	1.43	1.51	1.87	1.91	1.80	1.86	0.23
Commodities	0.87	0.75	0.74	0.78	0.74	0.38	0.38	0.41	0.36	0.37
All Funds	0.64	0.61	0.60	0.59	0.59	0.12	0.13	0.11	0.11	0.11

Exhibit 3 Passive Funds' Average Fees Fell Further Than Active Ones

	Year-Over-Year % Change in Asset-Weighted Average Fees									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	-1.5	-3.0	-3.1	-3.2	-1.6	0.0	0.0	-11.1	0.0	0.0
Sector Equity	-3.6	-1.2	-1.3	1.3	1.3	0.0	0.0	-7.4	-4.0	-4.2
International Equity	-3.8	-3.9	-2.7	-2.8	-2.9	-10.0	0.0	0.0	-5.6	-5.9
Taxable Bond	-7.0	-11.3	-2.1	2.2	2.1	0.0	-10.0	-11.1	0.0	0.0
Muni Bond	-7.8	-2.1	-4.3	4.5	4.3	-16.7	-6.7	-7.1	-15.4	0.0
Allocation	-4.7	-3.3	-1.7	0.0	-3.4	-12.5	-4.8	0.0	10.0	9.1
Alternative	-11.2	-10.0	-0.7	6.7	5.6	41.7	2.0	-5.6	3.5	-87.4
Commodities	-8.4	-13.8	-1.3	5.4	-5.1	-2.6	0.0	7.9	-12.2	2.8
All Funds	-5.2	-4.1	-2.9	-0.3	-1.0	-5.5	4.5	-12.7	-4.7	-1.5

Trends in Fund Fees Charged by the Industry

A look at equal-weighted average fund fees.

“Fee War” May Be Winding Down

Trends in equal-weighted average expense ratios represent the changes in fees charged by asset managers, which reflect what the asset-management industry is charging for its products, regardless of fund size. We calculated the equal-weighted average expense ratio for active and passive funds by Morningstar Category group. The calculations include all share classes of all funds, averaged first to the fund level and then across the US fund universe. Funds of funds and money market funds are excluded.

In recent years, index mutual funds and ETFs have experienced significant fee pressure. Most notably, providers of broad market index funds have been engaged in what has been dubbed a "fee war." In September 2018, fee fighting reached what seemed at the time to be its inevitable conclusion when Fidelity launched its lineup of zero-fee index mutual funds. More recently, other asset managers have followed suit. As fees for these funds sit either at or near zero, it is inevitable that the pace of fee declines will slow, prompting asset managers to look elsewhere for profits.

Exhibit 4 Fund Fees Charged by Asset Managers by Equal-Weighted Fees

	Equal-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	1.07	1.04	1.04	1.04	1.02	0.43	0.42	0.41	0.40	0.40
Sector Equity	1.29	1.26	1.23	1.26	1.30	0.47	0.45	0.46	0.46	0.45
International Equity	1.19	1.15	1.14	1.12	1.10	0.49	0.46	0.48	0.46	0.45
Taxable Bond	0.87	0.83	0.82	0.84	0.82	0.23	0.22	0.20	0.20	0.18
Muni Bond	0.80	0.78	0.77	0.78	0.77	0.21	0.22	0.21	0.21	0.20
Allocation	1.07	1.06	1.06	1.06	1.05	0.95	0.94	1.06	1.12	1.16
Alternative	1.77	1.73	1.68	1.70	1.78	0.78	0.81	0.54	0.49	0.58
Commodities	1.25	1.15	1.11	1.15	1.10	0.71	0.76	0.69	0.55	0.62
All Funds	1.06	1.03	1.01	1.02	1.00	0.55	0.53	0.53	0.53	0.52

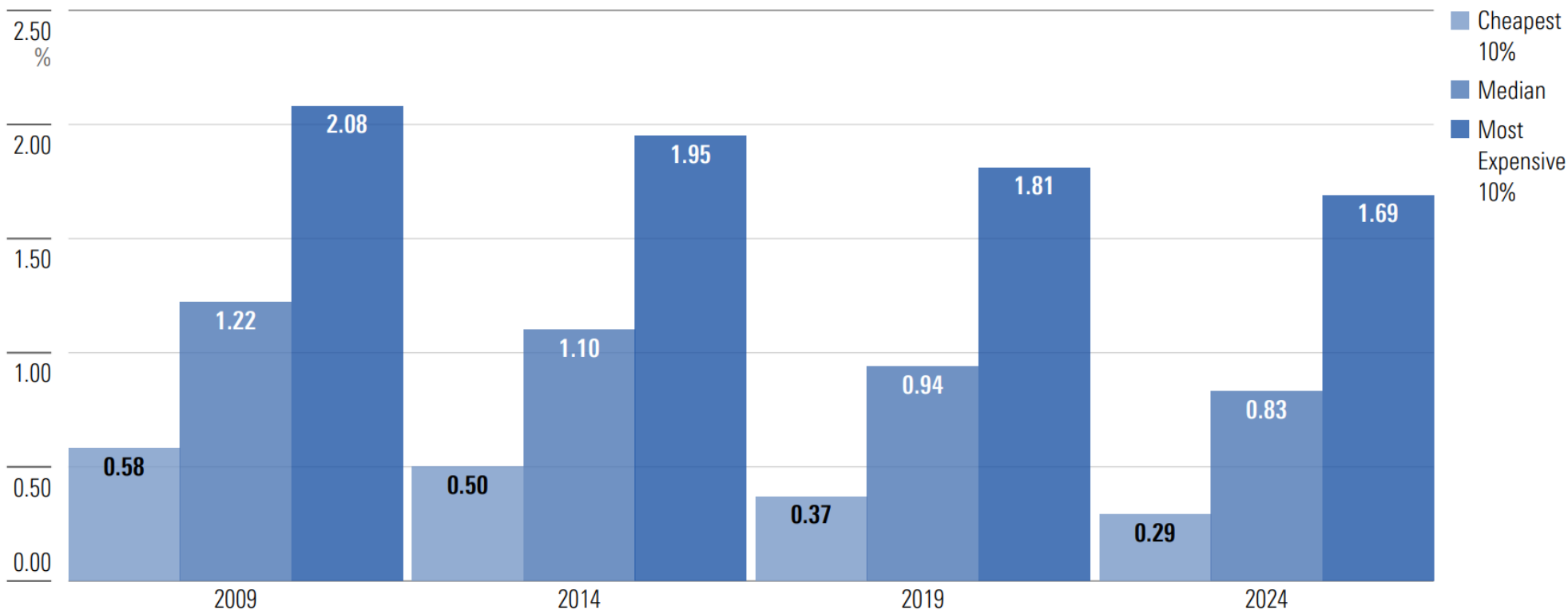
Exhibit 5 Pace of Fee Decreases Slows Across Most Category Groups

	Year-Over-Year % Change in Equal-Weighted Average Fees									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	-7.8	-2.8	0.0	0.0	-1.9	-2.3	-2.3	-2.4	-2.4	0.0
Sector Equity	-7.9	-2.3	-2.4	2.4	3.2	0.0	-4.3	2.2	0.0	-2.2
International Equity	-9.2	-3.4	-0.9	-1.8	-1.8	-2.0	-6.1	4.3	-4.2	-2.2
Taxable Bond	-7.4	-4.6	-1.2	2.4	-2.4	0.0	-4.3	-9.1	0.0	-10.0
Muni Bond	-10.1	-2.5	-1.3	1.3	-1.3	-12.5	4.8	-4.5	0.0	-4.8
Allocation	-3.6	-0.9	0.0	0.0	-0.9	1.1	-1.1	12.8	5.7	3.6
Alternative	-3.3	-2.3	-2.9	1.2	4.7	-32.2	3.8	-33.3	-9.3	18.4
Commodities	3.3	-8.0	-3.5	3.6	-4.3	-12.3	7.0	-9.2	-20.3	12.7
All Funds	-3.3	-3.3	-1.4	0.3	-1.3	-3.2	-3.6	-0.7	-1.1	-1.4

Cheap Funds Are Getting Cheaper. Expensive Ones Are Too, But at a Slower Pace

Cheap funds have gotten significantly cheaper. The cheapest 10% of all funds cut their fees in half over the last 15 years while the rest struggled to keep pace. The median fund's fee came down 32% during that time, and the priciest decile declined by just 19%. As the rate of decline slows for the cheapest of the cheap, the gap between the most expensive and least expensive funds could eventually converge.

Exhibit 6 Fees Continue to Fall Across the Fund Landscape



Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Blend Is Cheaper Than Value and Growth

Among US stock funds, the border separating the cheapest from the rest has fallen the furthest among large-, mid-, and small-blend funds. These categories have seen the greatest impact from low-cost index funds and ETFs. Growth and value funds remain relatively expensive on average, as pricier active funds hold a larger proportion of assets in these areas.

Exhibit 7 The Lines Between Cheap and Expensive Across the US Equity Morningstar Style Box

2009			
Large	Value	Blend	Growth
	0.69	0.42	0.76
	1.20	1.15	1.25
Mid	1.97	1.98	2.09
	0.83	0.54	0.90
	1.26	1.33	1.35
Small	2.00	2.15	2.20
	0.94	0.70	1.01
	1.40	1.37	1.49
	2.18	2.20	2.30
Legend			
Cheapest 10%			
Median			
Most Expensive 10%			

2014			
Large	Value	Blend	Growth
	0.57	0.35	0.66
	1.04	1.04	1.13
Mid	1.80	1.85	1.91
	0.70	0.25	0.77
	1.19	1.14	1.22
Small	1.95	1.92	2.00
	0.75	0.59	0.90
	1.27	1.21	1.30
	2.02	1.93	2.04

2019			
Large	Value	Blend	Growth
	0.37	0.19	0.50
	0.87	0.78	0.95
Mid	1.68	1.67	1.80
	0.54	0.20	0.66
	0.99	0.95	1.05
Small	1.78	1.81	1.88
	0.68	0.35	0.76
	1.13	1.04	1.14
	1.97	1.78	1.94

2024			
Large	Value	Blend	Growth
	0.35	0.14	0.44
	0.79	0.70	0.83
Mid	1.62	1.45	1.65
	0.39	0.14	0.63
	0.88	0.83	0.97
Small	1.70	1.64	1.78
	0.47	0.25	0.76
	1.04	0.95	1.08
	1.85	1.70	1.86

Fee Cuts Accelerate Again

The fact that fees have been reduced to either nothing or next to nothing among broad market index funds is only natural. Given these funds' commodity-like nature, it seems inevitable that their prices would be pushed down to the marginal cost of managing them and that assets would consolidate in the hands of a few large-scale manufacturers. Still, the persistence of fee cuts suggests there's still room for fees to come down elsewhere.

The percentage of actively managed funds that reported lower annual expenses increased to 35% in 2024 from 24% in 2023. Only 22% of passive funds cut their fee in 2024, but that was up from 13% in 2023.

Meanwhile, fee increases were reported by 24% of active funds and 10% of passive funds, both a significant decline from the year prior. Increases outpaced decreases in 2023, which was the first time since 2019. Fees were higher that year for several possible reasons, such as fee hikes, expired waivers, assets under management declines below fee breakpoints stemming from outflows or underperformance, and fund accounting anomalies.

Exhibit 8 Active Funds Have Been More Likely to Cut Fees in Recent Years

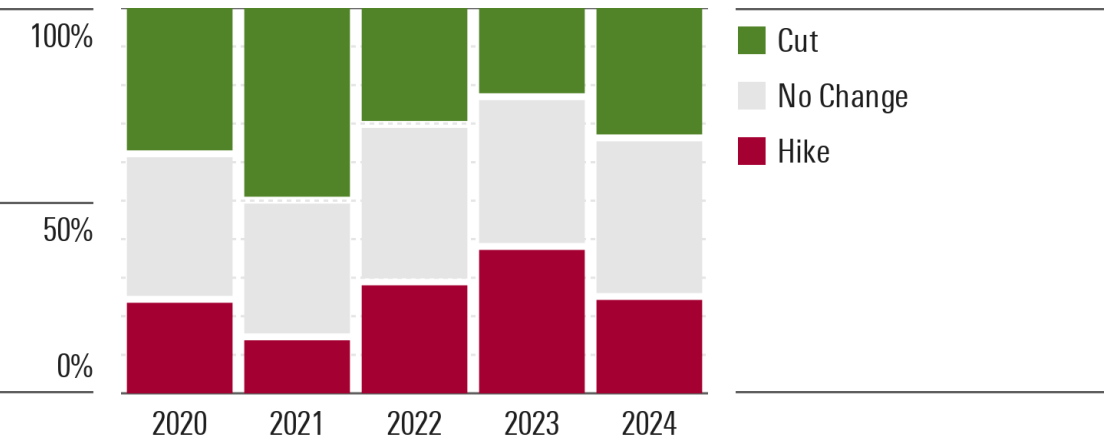
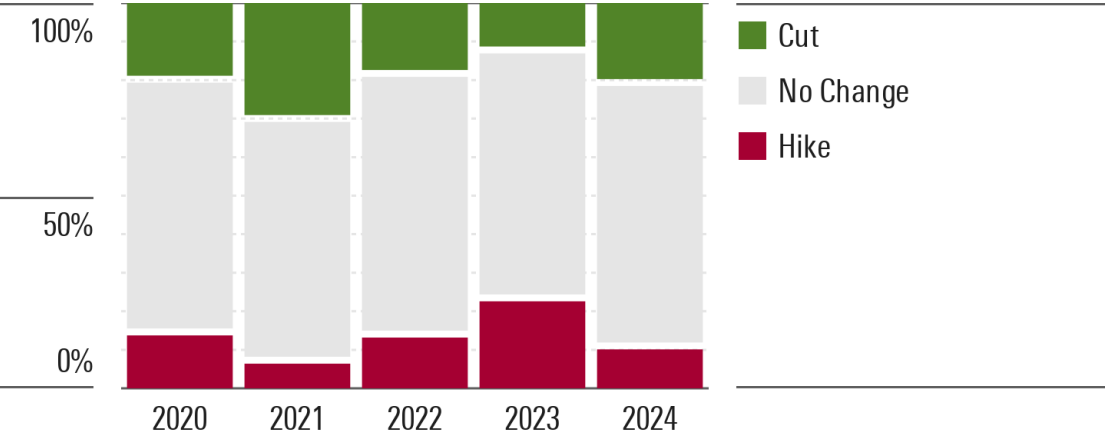


Exhibit 9 Passive Funds Have Been Less Likely to Cut Fees in Recent Years



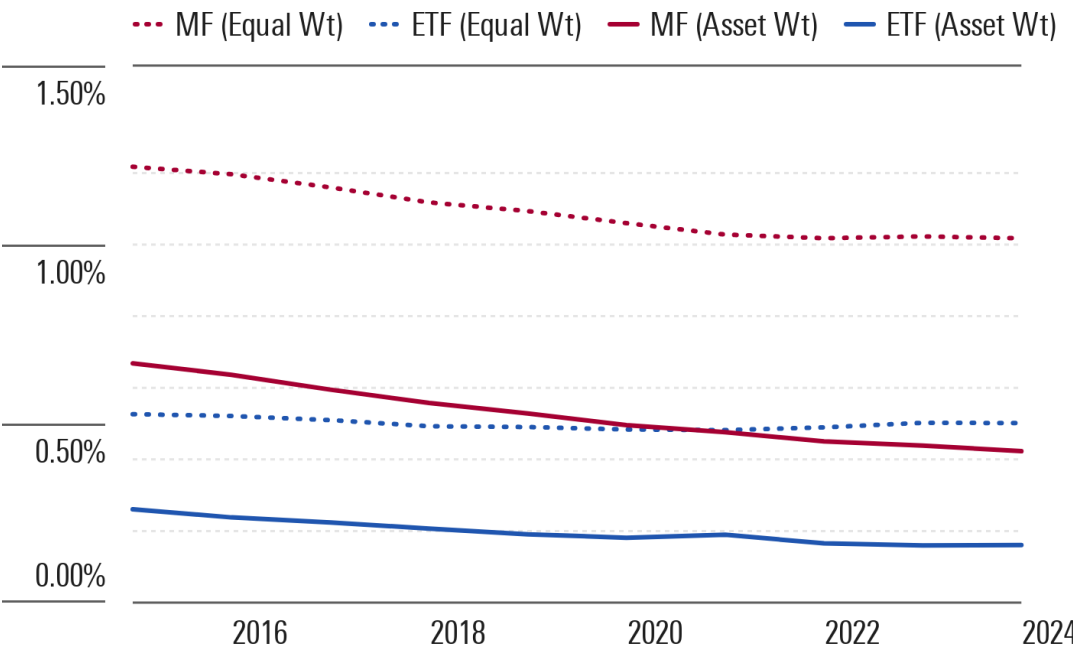
Fund Fees by Investment Vehicle

How fees differ between mutual funds and ETFs.

ETFs Are Cheaper, But Mutual Funds Are Catching Up

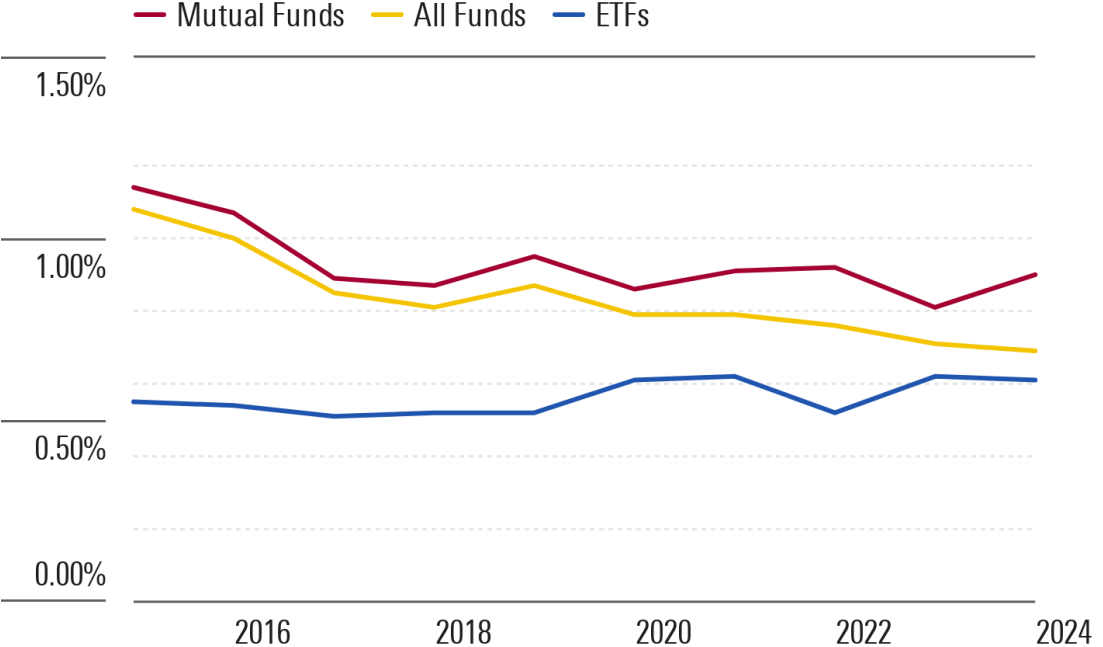
Both the equal-weighted and asset-weighted average ETF fee measured less than half of the fee charged by mutual funds, respectively. Though, this gap has narrowed over time.

Exhibit 10 Average ETF and Mutual Fund Fees



The average fee of new ETFs rose by 6 basis points since 2015, while new mutual funds are on average 24 basis points cheaper than they were that year. Despite an uptick in 2024, the fee gap for new funds has narrowed as higher-cost ETF launches proliferate.

Exhibit 11 Equal-Weighted Average Fee of New Funds



Asset Manager Fee Wars

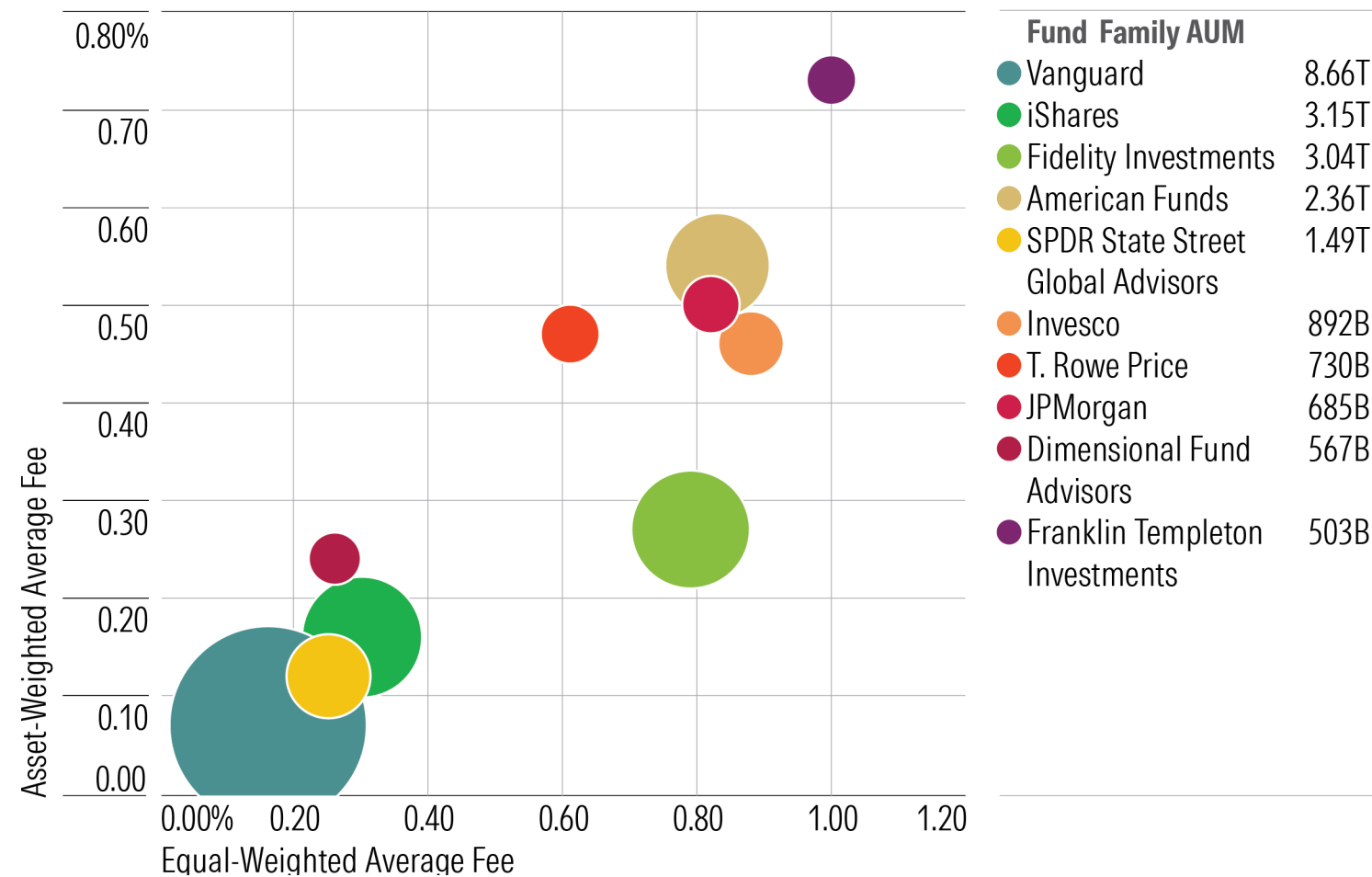
How firms compete.

Low-Cost Providers Hold the Most Assets

Low-cost providers tend to be among the largest firms. Four of the five largest asset managers were also among the five cheapest providers in 2024, ranked by asset-weighted average fee and exclusive of the largest 10 providers.

A fund family's asset-weighted average fee measures less than its equal-weighted average fee for all 10 of the largest fund families. This shows that fund investors favor cheap funds from whatever company they buy from. For some, like Dimensional Fund Advisors, this gap is small, reflecting a similarly priced lineup. While for others, like Fidelity, it's much larger. Fidelity's equal-weighted average fee in 2024 was 0.79% while its asset-weighted average fee was just 0.27%. This difference reflects Fidelity's hybrid lineup of active and passive strategies and the substantial assets in several of their low-cost index funds, such as the zero-fee suite noted earlier.

Exhibit 12 The Largest Firms Tend to Charge the Least



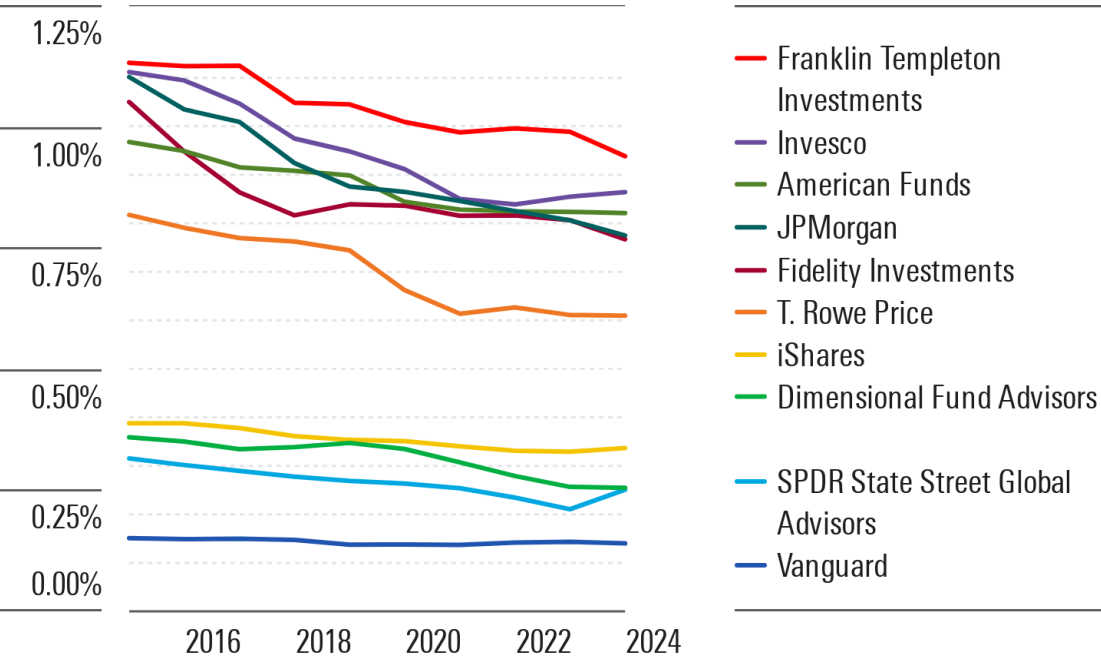
Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Fees Stagnate Among the Cheapest Providers, Fall Among the Priciest

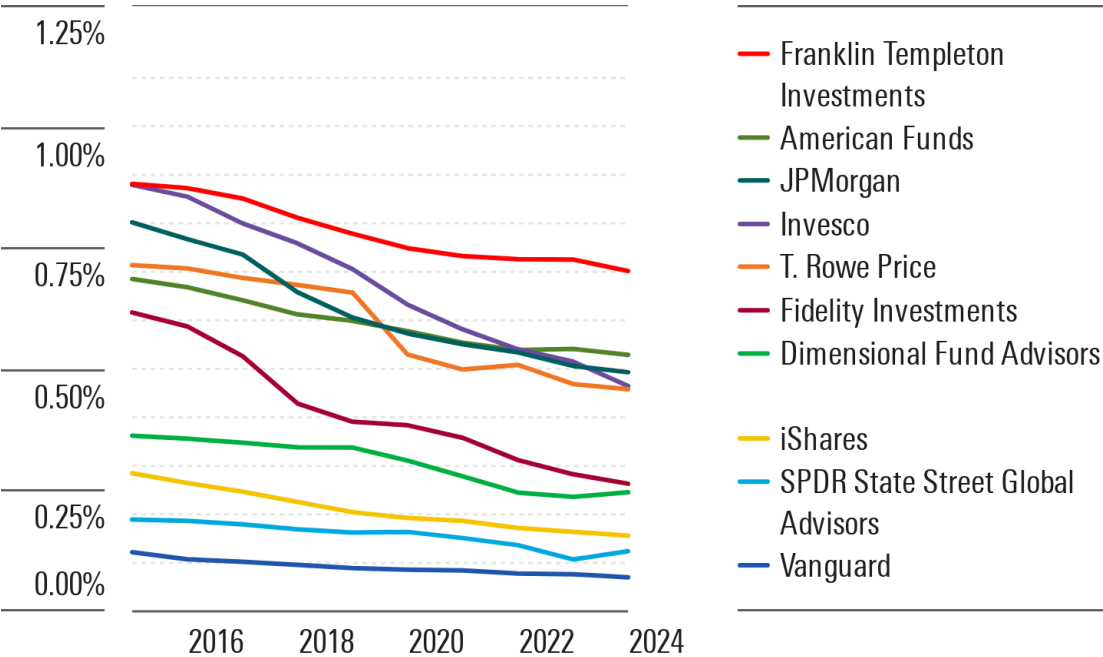
Equal-weighted average fees show the general price level of the funds on offer from each firm. Predominantly active shops tend to charge the most, while passive charges the least. However, Dimensional's systematic active offerings rank comfortably among the cheapest.

Exhibit 13 Equal-Weighted Average Fee by Asset Manager



An asset manager's asset-weighted average fee provides an accurate representation of the typical investor experience in its funds. Vanguard investors paid the lowest fee in 2024 with index fund champions iShares and State Street close behind.

Exhibit 14 Asset-Weighted Average Fee by Asset Manager



Vanguard Remains the Low-Cost Leader

Vanguard continues to wear the low-cost crown. In 2024, the firm's asset-weighted expense ratio was 0.07%, down from 0.09% in 2019. Vanguard was followed by SPDR State Street Global Advisors (0.12%), iShares (0.16%), and Dimensional Fund Advisors (0.25%). Vanguard's competition gained ground in 2024, though. As firms jockey for position, investors come out in front, benefiting from an ever-wider menu of cheap funds offering wide market exposure.

Exhibit 15 Fee Competition Among the Largest Asset Managers Is Intense

	Asset-Weighted Average Fees (%)			2024			
	2019	2024	Percent Change	Year End AUM (USD Bil)	Market Share (%)	Asset Growth (%)	Organic Growth Rate (%)
Vanguard	0.09	0.07	-21.05%	8,655.79	28.27	62.49	16.65
iShares	0.20	0.16	-23.77%	3,145.30	10.27	84.22	52.48
Fidelity Investments	0.39	0.26	-32.67%	3,041.91	9.93	75.37	13.37
American Funds	0.60	0.53	-11.69%	2,355.55	7.69	32.91	-12.03
SPDR State Street Global Advisors	0.16	0.12	-23.72%	1,494.49	4.88	108.23	43.94
Invesco	0.71	0.46	-34.15%	891.99	2.91	60.17	10.83
T. Rowe Price	0.66	0.46	-30.32%	730.39	2.39	9.41	-26.50
JPMorgan	0.61	0.49	-18.62%	684.54	2.24	91.15	52.63
Dimensional Fund Advisors	0.34	0.25	-27.30%	567.31	1.85	24.76	-7.42
Franklin Templeton Investments	0.78	0.70	-9.87%	502.70	1.64	-11.71	-32.76

Source: Morningstar. Data as of Dec. 31, 2024. Asset growth (%) and organic growth rate (%) based on 2019 and 2024 data.

See Important Disclosures at the end of this report.

Asset Flows by Fees

Do fees drive flows?

Investors Favor Low-Cost Funds and Reject More Costly Ones

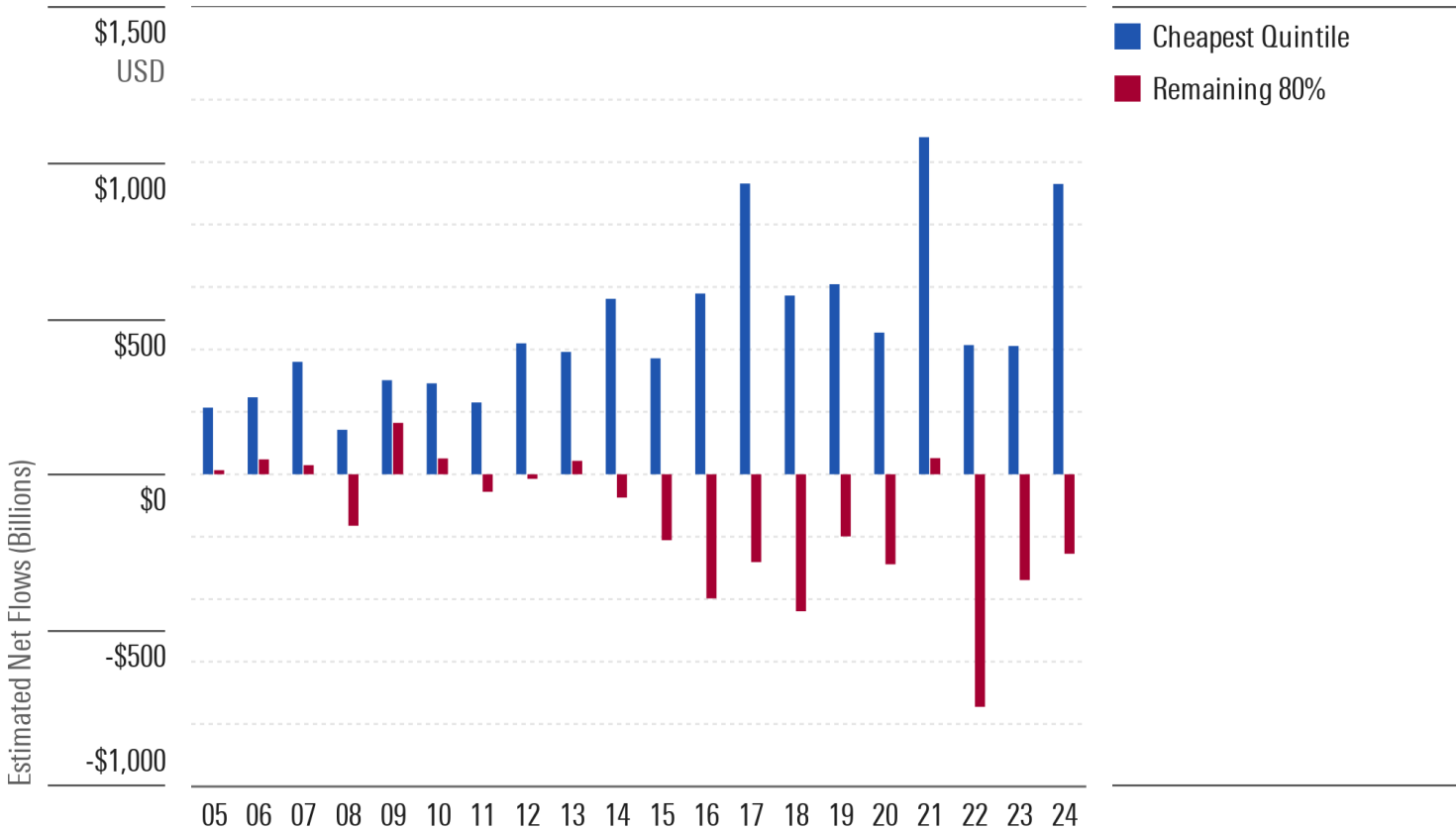
Fund fees drive flows. Since 2000, net flows have trended higher for funds and share classes charging fees that rank within the cheapest 20% of their Morningstar Category group. In 2024, these funds saw net inflows of USD 930 billion.

Flows for the remaining 80% of funds have been negative in 10 of the past 11 years. In 2024, these funds lost USD 254 billion to collective net outflows.

This USD 1.18 trillion difference in flows was the second-largest gap in the last 20 years.

Morningstar research has demonstrated that fees are a reliable predictor of future returns. Low-cost funds generally have greater odds of surviving and outperforming their more-expensive peers. It's encouraging to see investors favor such funds.

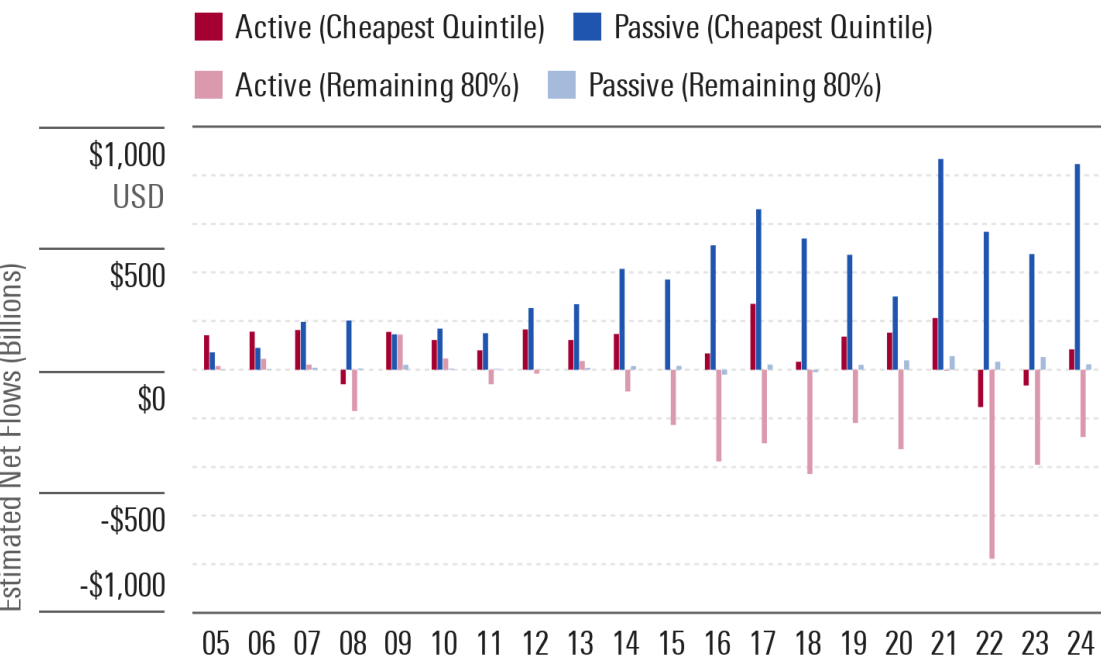
Exhibit 16 Investors Overwhelmingly Prefer Cheap Funds



Money Gravitates Toward Cheap and Passive Funds

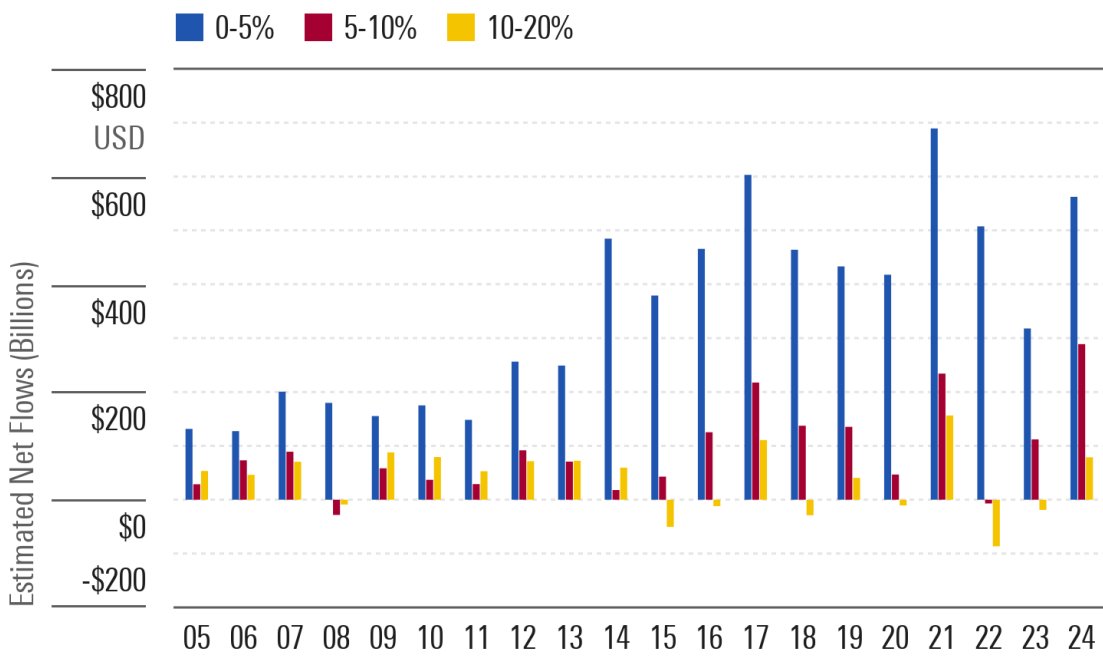
Cheap passive funds have seen the vast majority of inflows over the past 20 years. Since 2021, the cheapest 20% of passive funds collected almost USD 2.8 trillion while all other funds, led by expensive active funds, lost a collective USD 1.2 trillion.

Exhibit 17 Pricey Active Funds Are the Epicenter of Outflows



In 2024, USD 851 billion flowed into the least costly 10% of funds while the next cheapest decile of funds (10%-20%) gathered USD 79 billion, underlining investors' overwhelming demand for the cheapest of the cheap.

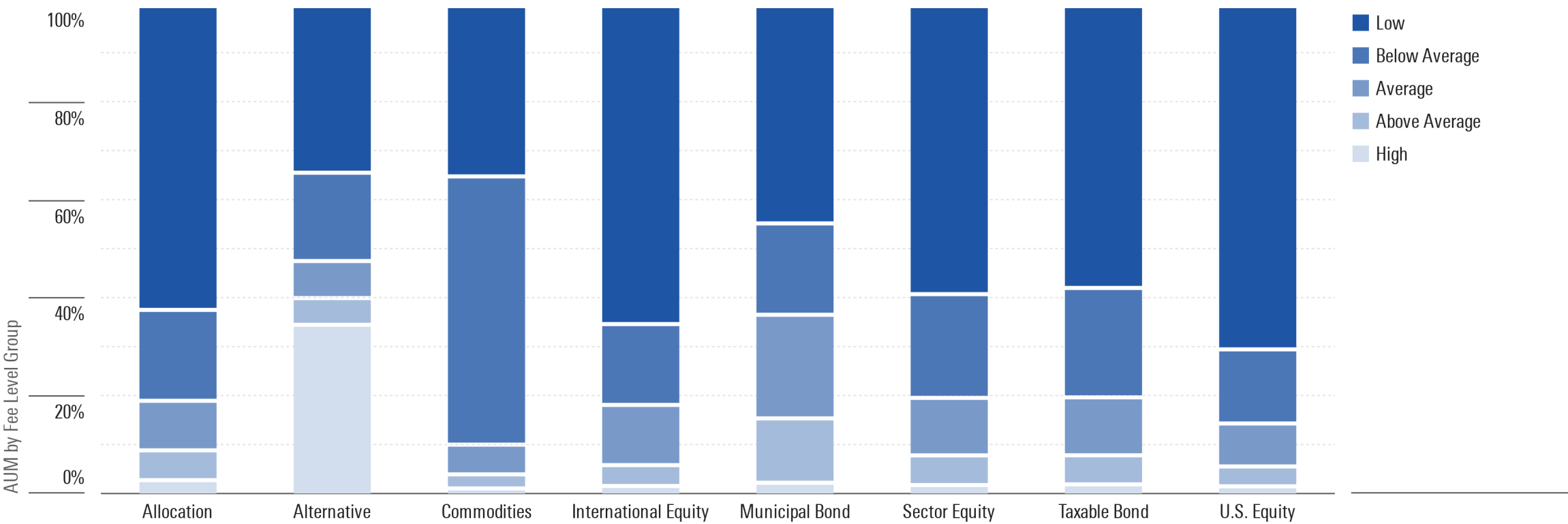
Exhibit 18 Investors Pour Money Into the Cheapest of the Cheap



Investor Dollars Concentrate in the Least-Expensive Funds

Most of investors' money sits in lower-priced funds. At the end of 2024, more than 50% of investor dollars were parked in the least-expensive 40% of funds in the eight Morningstar Category groups displayed. That number measures far higher in groups dominated by low-cost index funds with comparatively very few assets allocated to the most expensive 20% of funds. Investors are most willing to pay high fees in the alternative group. Over 34% of assets in that group were allocated to the most expensive quintile of funds.

Exhibit 19 Most of Investors' Money Is in the Least-Expensive Funds



How Fund Fees Are Shaped by the Economics of Advice

Classifying Service-Fee Arrangements

The evolution of the economics of the advice business is shaping flows and, by extension, fees. As advisors move away from transaction-driven compensation models and toward fee-based ones, less costly funds and share classes, those that have fewer—if any—embedded advice and/or distribution costs, are seeing more flows.

The service-fee arrangement attribute in our US funds database classifies funds based on their service-fee arrangements between asset managers, distributors, advisors, and investors. It aims to help investors discern how they might be paying for advice—either directly to an advisor in the form of a fee or indirectly via the fees they pay for the funds they invest in. In practice, investors might be paying for advice via some combination of the two, but this classification of funds into unbundled, semibundled, and bundled buckets is a useful means of beginning to understand what investors are getting in return for the fund fees.

The definitions of these groups are as follows:

- **Unbundled:** An investor simply pays for investment management and fund operating expenses, and the fund and its advisor do not pay third parties who sell their funds to the public. Unbundled share classes reduce conflicts, but investors still need to ask if they are paying a reasonable amount for advice and for the services that their intermediary charges them directly.
- **Semibundled:** The product charges no traditional distribution fees (or 12b-1 fees) or load-sharing but can have revenue-sharing or subtransfer agency fees. Semibundled share classes could create some potential conflicts of interests that investors need to ask about.
- **Bundled:** These are traditional share classes, where the investor pays a load and a 12b-1 fee to the mutual fund, which in turn pays the intermediary. Bundled share classes are purely transactional, which can work well for sophisticated investors who have done their homework and wish to pay upfront commissions. Advice associated with these share classes may ultimately cost less.

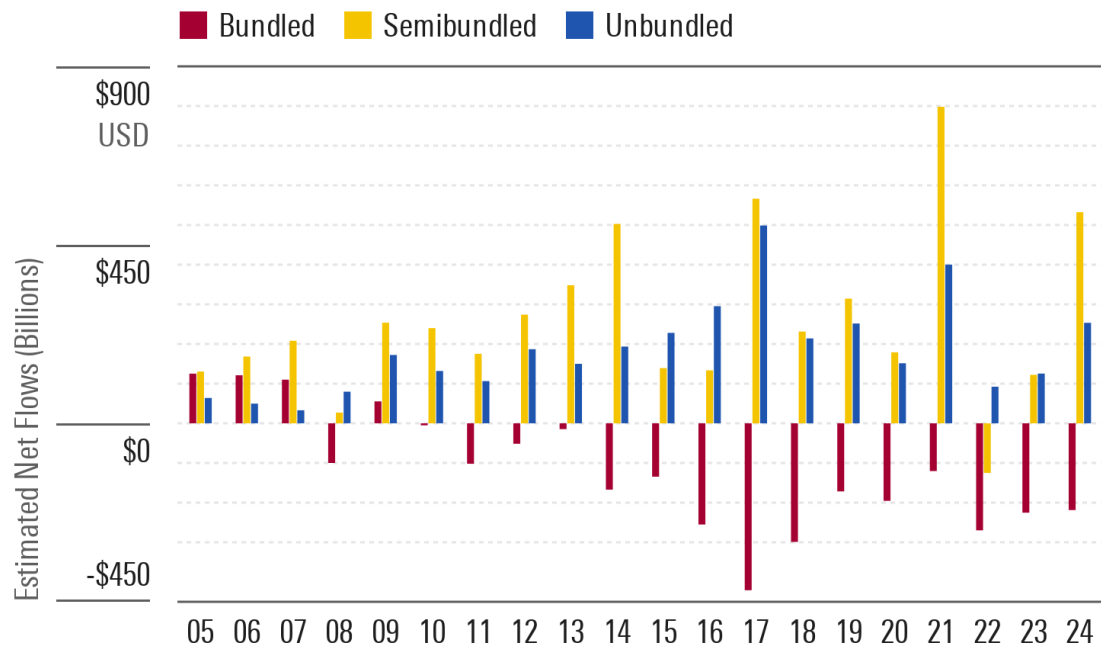
Flows Follow the Transition to Fee-Based Advice Models

Looking through the lens of Morningstar's service-fee arrangement attribute, we see that bundled share classes have been in steady outflows while semibundled and unbundled share classes have seen mostly steady inflows. This corresponds to the shift away from transaction-driven advice models, which favor load shares, and toward fee-based ones. The result is that investment product costs are being displaced by advisor fees.

Exhibit 20 Service-Fee Arrangements

Fee Type	Unbundled	Semibundled	Bundled
Management Fee	✓	✓	✓
Fund Operating Expenses	✓	✓	✓
Subtransfer Agency Fees	✗	✓	✓
Revenue Sharing, Platform, or Other Access Fees	✗	✓	✓
Distribution Fees (12b-1)	✗	✗	✓
Loads and Commissions	✗	✗	✓
Transactions and other Operational Fees	✗	✗	✓
Fees for Advice and Planning	✗	✗	✗

Exhibit 21 Bundled Funds Have Seen Steady Outflows



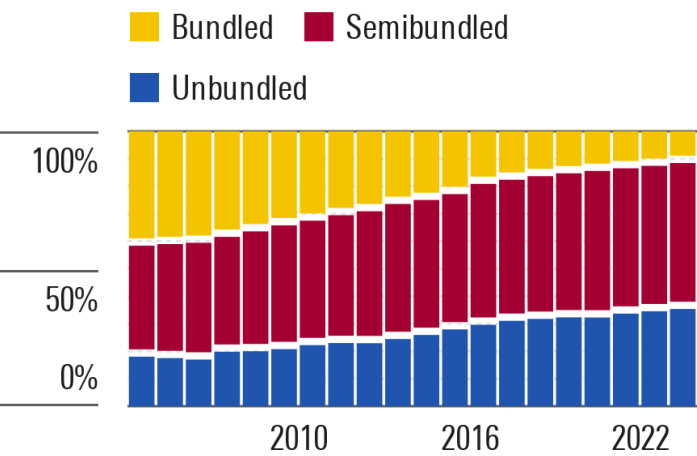
Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Fees Fell Across Service-Fee Arrangements, but Not Everywhere

Bundled funds and share classes have been a casualty of the move toward fee-based advice. While they used to account for the most assets of any service-fee arrangement, their market share has dwindled from 42% in 2005 to just 12% at the end of 2024. This highlights shifting investor preference from transaction-driven advice models to fee-based ones. What investors used to pay in fund fees they may now instead be paying in advice fees. Still, this optionality to select how they pay for advice is a benefit, and investors are likely still paying less for advice than they used to pay.

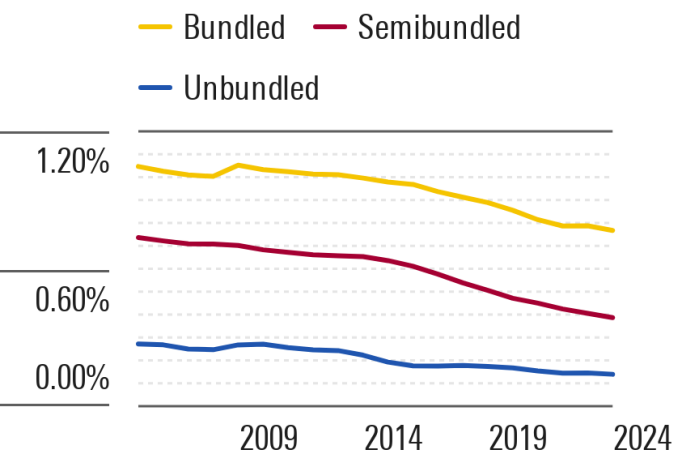
Exhibit 22 Semibundled and Unbundled Hold Most Assets



Source: Morningstar. Data as of Dec. 31, 2024.

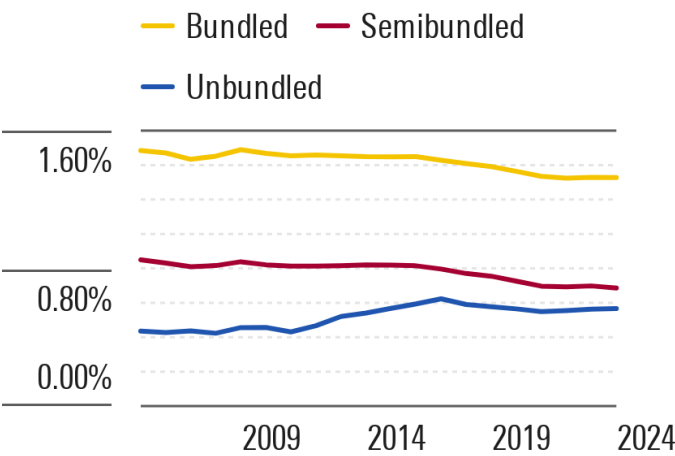
All three service-fee arrangements have seen significant asset-weighted average fee declines over the past 20 years. Bundled funds are still the most expensive, as their expense ratio covers much more than just a fund's management fee and operating expense, but its asset-weighted average total expense still dropped by 27%. Meanwhile, the asset-weighted average fees for semibundled and unbundled funds were more than cut in half since 2005. This again highlights greater investor interest in low-cost products.

Exhibit 23 Asset-Weighted Fee by Service Arrangement



The trend in equal-weighted fees across these three service-fee arrangements paints a different picture. Equal-weighted average fees for unbundled funds and share classes were higher at the end of 2024 than they were in 2005, while the average fee charged by bundled and semibundled funds ticked gradually lower. This highlights the variety of line items present in the bundled and semibundled cohorts' expense ratios and how, in the case of many funds and share classes belonging to the semibundled group, they have been gradually stripped out or reduced.

Exhibit 24 Equal-Weighted Fee by Service Arrangement



See Important Disclosures at the end of this report.

The Sustainable Fund “Greenium”

Fund Fees Are Falling, but ESG Investors Still Pay More

Investors in sustainable funds are paying a “greenium” relative to investors in conventional funds. Despite firms on average charging less for their ESG products than for conventional active or passive funds, an overwhelming preference for cheap conventional funds brings the fee that investors actually pay for ESG funds—the asset-weighted average fee—noticeably above their non-ESG peers.

Exhibit 25 Equal-Weighted Average Fee

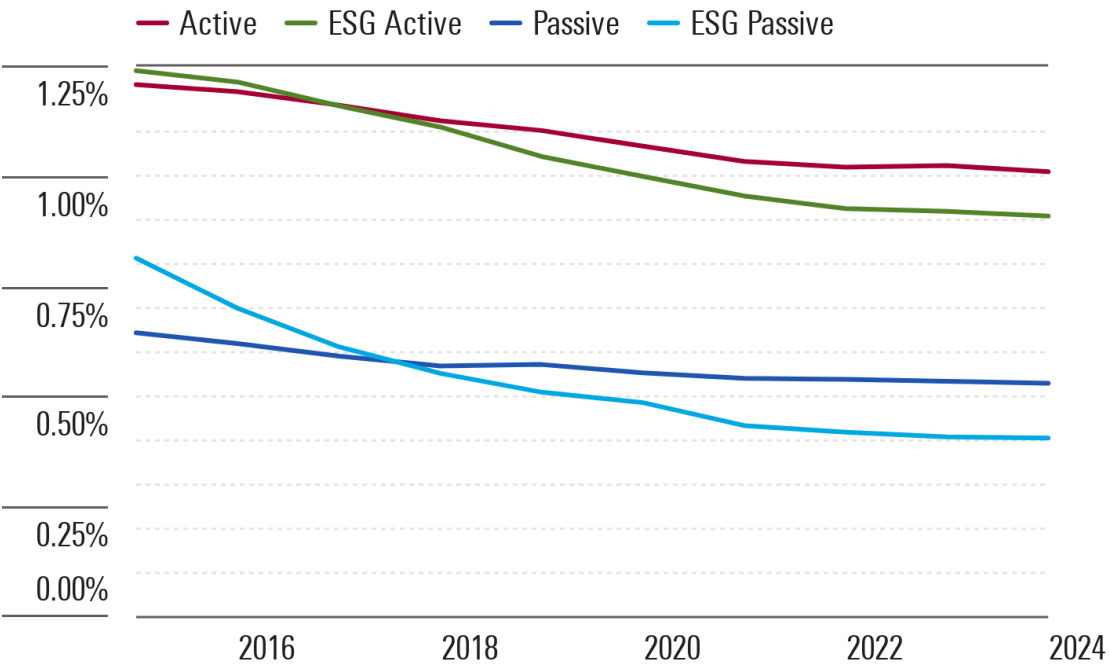
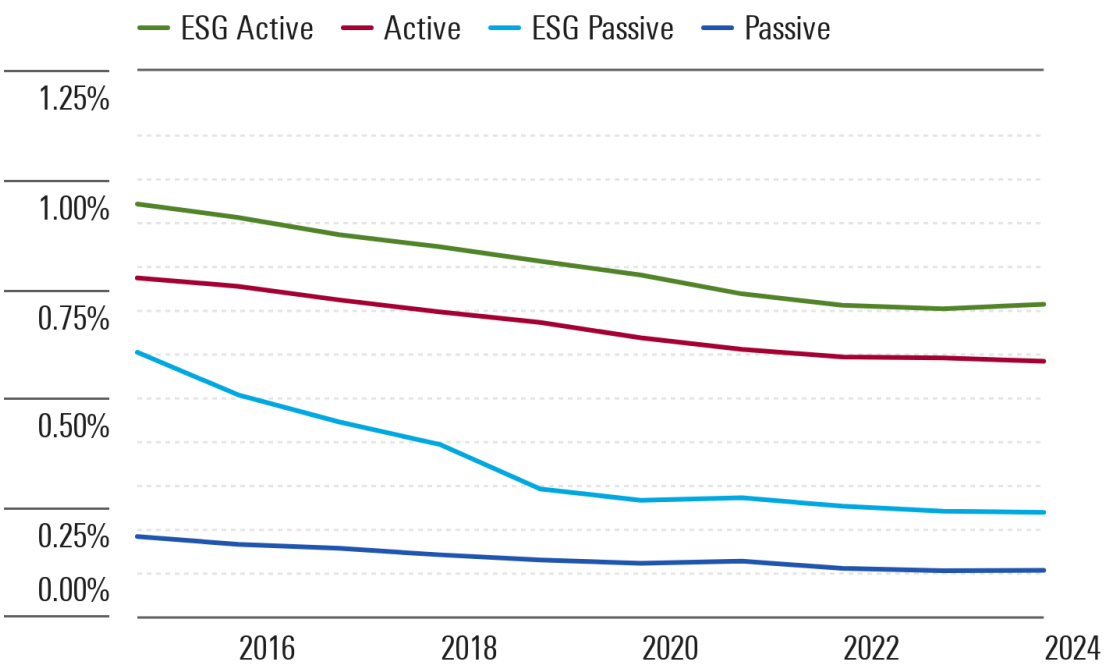


Exhibit 26 Asset-Weighted Average Fee



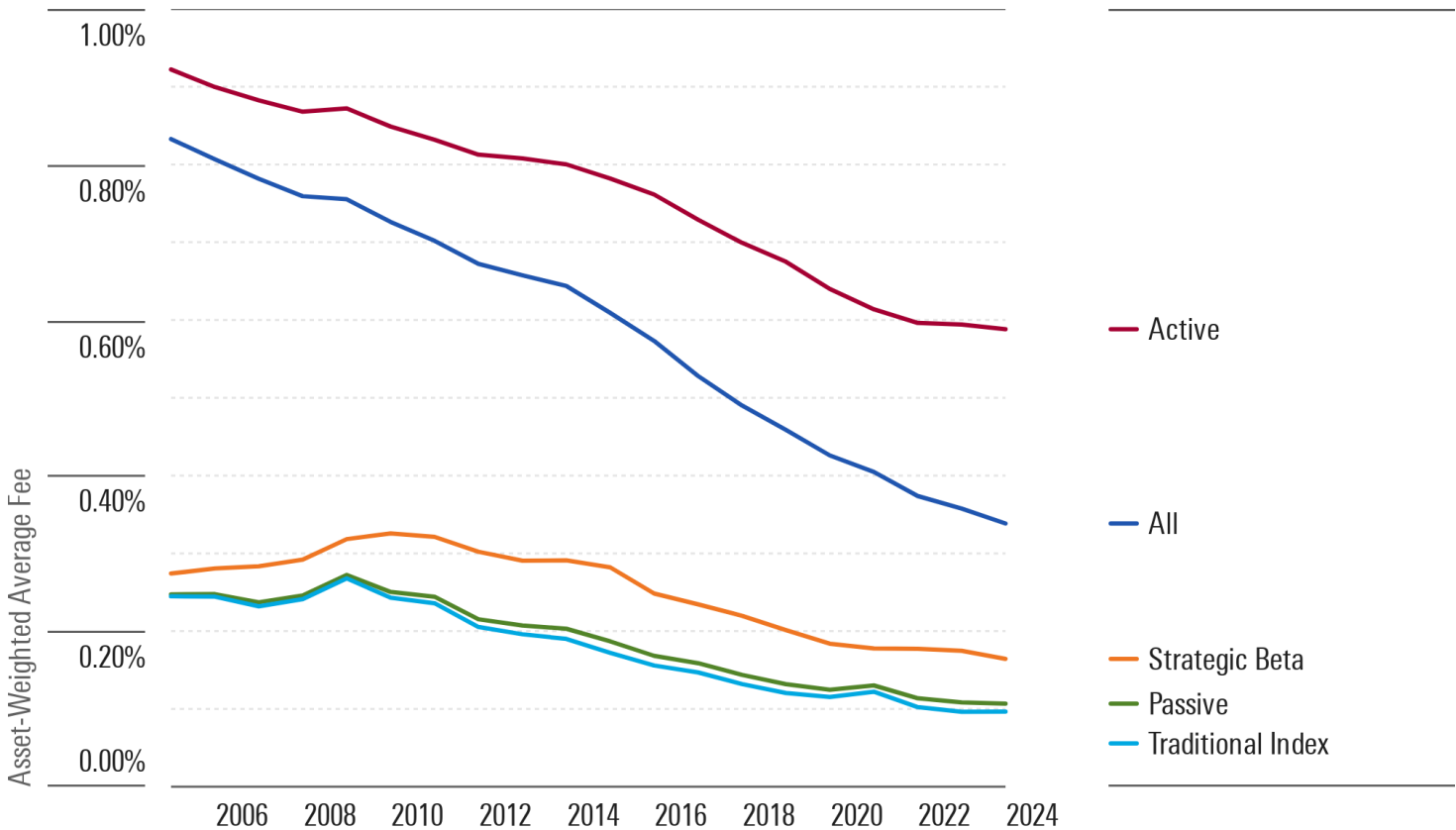
Strategic-Beta Fees

An Attempt to Marry the Best of Both Worlds

Strategic-beta funds attempt to marry the best attributes of active and passive approaches to portfolio construction. The indexes that underpin these funds attempt to codify strategies similar to those plied by active managers and deliver them in a format that is more transparent and less costly relative to most traditional actively managed funds.

At 0.16%, strategic-beta funds' asset-weighted average fee is significantly lower relative to active funds (0.59%) but reflects a premium versus their peers that are tracking more traditional indexes (0.10%). That said, this premium has narrowed in recent years as fee competition has spilled over from the realm of traditional index funds into strategic-beta ones.

Exhibit 27 Strategic-Beta Funds Offer a Cheaper Alternative to Active Management



Appendix

Exhibit 28 Asset-Weighted Average Fee by Morningstar Category

	Asset-Weighted Average Fees (%)				
	2020	2021	2022	2023	2024
Large Blend	0.17	0.16	0.15	0.14	0.13
Large Value	0.45	0.42	0.41	0.40	0.39
Large Growth	0.58	0.56	0.51	0.47	0.45
Mid-Cap Blend	0.21	0.24	0.24	0.21	0.18
Mid-Cap Value	0.61	0.58	0.59	0.60	0.58
Mid-Cap Growth	0.78	0.59	0.58	0.72	0.70
Small Blend	0.33	0.30	0.29	0.28	0.27
Small Value	0.58	0.55	0.52	0.50	0.48
Small Growth	0.76	0.74	0.73	0.70	0.67
Foreign Large Blend	0.26	0.25	0.24	0.23	0.23
Foreign Large Growth	0.67	0.66	0.65	0.62	0.59
Diversified Emerging Mkts	0.61	0.58	0.53	0.50	0.47
Global Large-Stock Blend	0.59	0.54	0.54	0.53	0.50
Intermediate Core Bond	0.14	0.14	0.14	0.13	0.14
Intermediate Core-Plus Bond	0.49	0.46	0.44	0.44	0.43
Short-Term Bond	0.33	0.28	0.28	0.27	0.26
Ultrashort Bond	0.28	0.27	0.25	0.21	0.21
Corporate Bond	0.26	0.22	0.20	0.22	0.18
High-Yield Bond	0.59	0.56	0.56	0.56	0.54

Exhibit 29 Annual Percent Change in Asset-Weighted Average Fee by Category

	Change in Asset-Weighted Average Fees (%)				
	2020	2021	2022	2023	2024
Large Blend	-10.1	-4.4	-10.0	-2.5	-9.9
Large Value	-6.9	-5.0	-3.0	-3.7	-2.3
Large Growth	-3.4	-3.5	-8.1	-7.4	-5.1
Mid-Cap Blend	-9.0	12.3	-1.0	-13.1	-11.6
Mid-Cap Value	0.4	-4.0	0.8	3.0	-3.6
Mid-Cap Growth	-4.0	-24.1	-2.4	25.7	-2.8
Small Blend	-8.5	-10.0	-2.3	-2.9	-2.3
Small Value	-1.9	-5.2	-4.7	-3.9	-4.9
Small Growth	-2.0	-2.2	-1.5	-3.6	-3.9
Foreign Large Blend	-10.2	-6.4	-1.9	-3.0	-2.3
Foreign Large Growth	-3.2	-1.6	-1.7	-4.7	-3.8
Diversified Emerging Mkts	-5.6	-5.6	-8.1	-6.3	-4.8
Global Large-Stock Blend	-7.4	-8.5	0.3	-1.4	-6.7
Intermediate Core Bond	-6.8	-4.2	-0.4	-1.0	5.3
Intermediate Core-Plus Bond	-3.4	-7.5	-3.9	0.6	-3.1
Short-Term Bond	-3.1	-15.3	-1.8	-2.8	-2.6
Ultrashort Bond	-4.7	-3.7	-10.0	-15.0	1.7
Corporate Bond	-3.0	-16.1	-5.6	9.4	-20.2
High-Yield Bond	-7.8	-5.0	0.7	-0.7	-2.6

Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Exhibit 30 Asset-Weighted Average Fee by Morningstar Category

	Asset-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Large Blend	0.55	0.51	0.49	0.49	0.47	0.06	0.06	0.05	0.05	0.05
Large Value	0.57	0.56	0.56	0.55	0.56	0.16	0.16	0.15	0.14	0.14
Large Growth	0.69	0.68	0.65	0.62	0.61	0.15	0.15	0.15	0.15	0.14
Mid-Cap Blend	0.89	0.85	0.84	0.86	0.78	0.09	0.10	0.09	0.08	0.08
Mid-Cap Value	0.71	0.68	0.73	0.76	0.73	0.18	0.18	0.24	0.26	0.21
Mid-Cap Growth	0.85	0.83	0.83	0.82	0.81	0.20	0.19	0.17	0.16	0.15
Small Blend	0.76	0.73	0.73	0.72	0.71	0.11	0.11	0.10	0.10	0.10
Small Value	0.82	0.79	0.76	0.72	0.69	0.15	0.15	0.15	0.16	0.16
Small Growth	0.89	0.88	0.88	0.86	0.85	0.14	0.14	0.13	0.14	0.13
Foreign Large Blend	0.67	0.62	0.62	0.62	0.62	0.12	0.12	0.11	0.11	0.10
Foreign Large Growth	0.68	0.67	0.66	0.63	0.61	0.37	0.35	0.33	0.32	0.32
Diversified Emerging Mkts	0.84	0.82	0.78	0.75	0.72	0.24	0.21	0.20	0.19	0.18
Global Large-Stock Blend	0.70	0.66	0.68	0.67	0.64	0.21	0.19	0.19	0.18	0.17
Intermediate Core Bond	0.32	0.33	0.33	0.33	0.35	0.05	0.05	0.05	0.04	0.04
Intermediate Core-Plus Bond	0.50	0.46	0.45	0.45	0.44	0.13	0.08	0.06	0.07	0.07
Short-Term Bond	0.43	0.37	0.36	0.36	0.35	0.06	0.05	0.05	0.05	0.05
Ultrashort Bond	0.32	0.29	0.28	0.25	0.26	0.14	0.14	0.14	0.13	0.12
Corporate Bond	0.45	0.37	0.36	0.43	0.34	0.10	0.09	0.08	0.08	0.07
High-Yield Bond	0.63	0.61	0.61	0.60	0.58	0.38	0.36	0.35	0.34	0.36

Exhibit 31 Annual Percent Change in Asset-Weighted Average Fee by Category

	Change in Asset-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Large Blend	-5.2	-7.3	-3.9	0.0	-4.1	0.0	0.0	-16.7	0.0	0.0
Large Value	-6.6	-1.8	0.0	-1.8	1.8	-5.9	0.0	-6.3	-6.7	0.0
Large Growth	-1.4	-1.4	-4.4	-4.6	-1.6	-6.3	0.0	0.0	0.0	-6.7
Mid-Cap Blend	2.3	-4.5	-1.2	2.4	-9.3	-10.0	11.1	-10.0	-11.1	0.0
Mid-Cap Value	1.4	-4.2	7.4	4.1	-3.9	-10.0	0.0	33.3	8.3	-19.2
Mid-Cap Growth	-4.5	-2.4	0.0	-1.2	-1.2	-0.7	-6.7	-11.7	-5.6	-1.6
Small Blend	-1.3	-3.9	0.0	-1.4	-1.4	-8.3	0.0	-9.1	0.0	0.0
Small Value	-1.2	-3.7	-3.8	-5.3	-4.2	-6.3	0.0	0.0	6.7	0.0
Small Growth	-3.3	-1.1	0.0	-2.3	-1.2	-6.7	0.0	-7.1	7.7	-7.1
Foreign Large Blend	-6.9	-7.5	0.0	0.0	0.0	0.0	0.0	-8.3	0.0	-9.1
Foreign Large Growth	-1.4	-1.5	-1.5	-4.5	-3.2	-2.6	-5.4	-5.7	-3.0	0.0
Diversified Emerging Mkts	-7.7	-2.4	-4.9	-3.8	-4.0	0.0	-12.5	-4.8	-5.0	-5.3
Global Large-Stock Blend	-6.7	-5.7	3.0	-1.5	-4.5	5.0	-9.5	0.0	-5.3	-5.6
Intermediate Core Bond	-8.6	3.1	0.0	0.0	6.1	0.0	0.0	0.0	-20.0	0.0
Intermediate Core-Plus Bond	-2.0	-8.0	-2.2	0.0	-2.2	-15.0	-41.1	-22.7	14.7	-0.2
Short-Term Bond	-2.3	-14.0	-2.7	0.0	-2.8	0.0	-16.7	0.0	0.0	0.0
Ultrashort Bond	-3.0	-9.4	-3.4	-10.7	4.0	-6.7	0.0	0.0	-7.1	-7.7
Corporate Bond	2.3	-17.8	-2.7	19.4	-20.9	-9.1	-10.0	-11.1	0.0	-12.5
High-Yield Bond	-7.4	-3.2	0.0	-1.6	-3.3	-7.3	-5.3	-2.8	-2.9	5.9

Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Exhibit 32 Equal-Weighted Average Fee by Morningstar Category

	Equal-Weighted Average Fees (%)				
	2020	2021	2022	2023	2024
Large Blend	0.82	0.80	0.78	0.79	0.76
Large Value	0.93	0.92	0.90	0.90	0.89
Large Growth	1.02	0.96	0.96	0.96	0.94
Mid-Cap Blend	0.96	0.93	0.95	0.92	0.86
Mid-Cap Value	1.04	0.98	0.98	0.98	0.96
Mid-Cap Growth	1.11	1.06	1.06	1.12	1.05
Small Blend	1.05	1.00	0.99	0.99	0.98
Small Value	1.17	1.15	1.14	1.12	1.10
Small Growth	1.20	1.19	1.17	1.17	1.16
Foreign Large Blend	0.92	0.91	0.92	0.90	0.86
Foreign Large Growth	1.07	1.05	1.05	1.03	0.99
Diversified Emerging Mkts	1.23	1.19	1.16	1.16	1.14
Global Large-Stock Blend	1.00	0.95	0.96	0.95	0.91
Intermediate Core Bond	0.62	0.59	0.59	0.58	0.57
Intermediate Core-Plus Bond	0.77	0.74	0.74	0.76	0.76
Short-Term Bond	0.69	0.67	0.66	0.65	0.63
Ultrashort Bond	0.44	0.43	0.42	0.40	0.40
Corporate Bond	0.74	0.68	0.67	0.67	0.64
High-Yield Bond	0.93	0.91	0.89	0.90	0.89

Exhibit 33 Annual Percent Change in Equal-Weighted Average Fee by Category

	Change in Equal-Weighted Average Fees (%)				
	2020	2021	2022	2023	2024
Large Blend	-5.1	-3.1	-2.4	1.4	-4.0
Large Value	-1.0	-1.5	-1.7	-0.3	-1.3
Large Growth	-2.5	-5.0	-0.8	-0.1	-2.0
Mid-Cap Blend	-4.6	-3.3	2.6	-2.9	-6.9
Mid-Cap Value	-0.5	-5.6	-0.2	0.3	-2.8
Mid-Cap Growth	-2.3	-5.0	0.6	5.1	-6.1
Small Blend	-1.6	-5.2	-0.6	0.2	-1.4
Small Value	-2.2	-1.7	-0.4	-2.0	-1.3
Small Growth	-1.2	-1.0	-1.0	-0.3	-1.3
Foreign Large Blend	-2.3	-0.8	0.9	-2.0	-4.3
Foreign Large Growth	-2.9	-2.2	0.1	-2.1	-4.0
Diversified Emerging Mkts	-2.4	-3.1	-2.2	-0.4	-1.7
Global Large-Stock Blend	-3.4	-5.6	1.5	-1.5	-4.1
Intermediate Core Bond	-5.3	-4.6	0.2	-1.5	-1.8
Intermediate Core-Plus Bond	-3.4	-3.2	-0.7	3.1	-0.2
Short-Term Bond	-3.1	-3.6	-1.4	-1.3	-3.3
Ultrashort Bond	-4.2	-2.4	-2.1	-5.0	2.2
Corporate Bond	-3.4	-6.9	-2.7	0.7	-4.8
High-Yield Bond	-2.2	-2.5	-2.5	1.5	-1.4

Exhibit 34 Equal-Weighted Average Fee by Morningstar Category

	Equal-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Large Blend	0.96	0.92	0.91	0.92	0.89	0.39	0.38	0.37	0.35	0.33
Large Value	0.99	0.97	0.96	0.96	0.95	0.46	0.46	0.45	0.44	0.39
Large Growth	1.04	1.00	0.99	1.00	0.98	0.67	0.61	0.60	0.58	0.56
Mid-Cap Blend	1.17	1.13	1.13	1.12	1.08	0.39	0.39	0.42	0.38	0.35
Mid-Cap Value	1.07	1.04	1.04	1.04	1.03	0.46	0.46	0.45	0.44	0.39
Mid-Cap Growth	1.15	1.11	1.12	1.16	1.08	0.62	0.58	0.58	0.57	0.57
Small Blend	1.18	1.13	1.13	1.12	1.10	0.46	0.43	0.40	0.40	0.42
Small Value	1.20	1.19	1.19	1.16	1.16	0.71	0.66	0.60	0.64	0.65
Small Growth	1.22	1.21	1.19	1.19	1.18	0.63	0.61	0.66	0.63	0.50
Foreign Large Blend	1.06	1.04	1.04	1.03	1.00	0.37	0.36	0.35	0.34	0.28
Foreign Large Growth	1.09	1.07	1.07	1.05	1.01	0.43	0.44	0.46	0.42	0.46
Diversified Emerging Mkts	1.32	1.28	1.25	1.25	1.23	0.44	0.41	0.41	0.41	0.44
Global Large-Stock Blend	1.06	1.01	1.03	1.02	0.99	0.42	0.38	0.34	0.32	0.32
Intermediate Core Bond	0.69	0.65	0.65	0.64	0.63	0.27	0.24	0.23	0.24	0.19
Intermediate Core-Plus Bond	0.77	0.75	0.74	0.77	0.76	0.22	0.19	0.37	0.38	0.38
Short-Term Bond	0.72	0.70	0.69	0.68	0.66	0.12	0.12	0.12	0.12	0.13
Ultrashort Bond	0.45	0.44	0.44	0.42	0.43	0.13	0.12	0.11	0.11	0.11
Corporate Bond	0.81	0.77	0.76	0.75	0.73	0.22	0.19	0.14	0.16	0.14
High-Yield Bond	0.97	0.95	0.93	0.95	0.92	0.41	0.40	0.35	0.33	0.29

Exhibit 35 Annual Percent Change in Equal-Weighted Average Fee by Category

	Change in Equal-Weighted Average Fees (%)									
	Active					Passive				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Large Blend	-5.0	-4.2	-1.1	1.1	-3.3	0.0	-2.6	-2.6	-5.4	-5.7
Large Value	-1.0	-2.0	-1.0	0.0	-1.0	-8.0	0.0	-2.2	-2.2	-11.4
Large Growth	-2.8	-3.8	-1.0	1.0	-2.0	1.5	-9.0	-1.6	-3.3	-3.4
Mid-Cap Blend	-4.1	-3.4	0.0	-0.9	-3.6	-11.4	0.0	7.7	-9.5	-7.9
Mid-Cap Value	-0.9	-2.8	0.0	0.0	-1.0	-8.0	0.0	-2.2	-2.2	-11.4
Mid-Cap Growth	-1.7	-3.5	0.9	3.6	-6.9	-0.4	-5.7	-0.8	-0.6	-1.6
Small Blend	-0.8	-4.2	0.0	-0.9	-1.8	-2.1	-6.5	-7.0	0.0	5.0
Small Value	-3.2	-0.8	0.0	-2.5	0.0	0.0	-7.0	-9.1	6.7	1.6
Small Growth	-0.8	-0.8	-1.7	0.0	-0.8	-1.8	-3.2	8.2	-4.5	-20.6
Foreign Large Blend	-1.9	-1.9	0.0	-1.0	-2.9	-5.1	-2.7	-2.8	-2.9	-17.6
Foreign Large Growth	-2.7	-1.8	0.0	-1.9	-3.8	-6.5	2.3	4.5	-8.7	9.5
Diversified Emerging Mkts	-2.2	-3.0	-2.3	0.0	-1.6	-4.3	-6.8	0.0	0.0	7.3
Global Large-Stock Blend	-3.6	-4.7	2.0	-1.0	-2.9	-17.6	-9.5	-10.5	-5.9	0.0
Intermediate Core Bond	-4.2	-5.8	0.0	-1.5	-1.6	0.0	-11.1	-4.2	4.3	-20.8
Intermediate Core-Plus Bond	-3.8	-2.6	-1.3	4.1	-1.3	7.7	-14.5	97.9	1.1	0.5
Short-Term Bond	-4.0	-2.8	-1.4	-1.4	-2.9	0.0	0.0	0.0	0.0	8.3
Ultrashort Bond	-4.3	-2.2	0.0	-4.5	2.4	0.0	-7.7	-8.3	0.0	0.0
Corporate Bond	-3.6	-4.9	-1.3	-1.3	-2.7	-8.3	-13.6	-26.3	14.3	-12.5
High-Yield Bond	-2.0	-2.1	-2.1	2.2	-3.2	2.5	-2.4	-12.5	-5.7	-12.1

Source: Morningstar. Data as of Dec. 31, 2024.

See Important Disclosures at the end of this report.

Exhibit 36 Asset-Weighted Average Fee by Service-Fee Arrangement

	Asset-Weighted Average Fees (%)														
	Bundled					Semibundled					Unbundled				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	0.89	0.86	0.84	0.83	0.81	0.42	0.40	0.37	0.34	0.32	0.12	0.12	0.11	0.11	0.10
Sector Equity	0.53	0.45	0.40	0.37	0.34	0.62	0.60	0.59	0.60	0.58	0.20	0.18	0.17	0.18	0.18
International Equity	0.99	0.95	0.93	0.93	0.88	0.57	0.55	0.51	0.48	0.46	0.22	0.22	0.22	0.21	0.20
Taxable Bond	0.86	0.79	0.79	0.79	0.79	0.39	0.36	0.35	0.33	0.33	0.22	0.17	0.16	0.17	0.19
Muni Bond	0.79	0.77	0.75	0.80	0.87	0.45	0.44	0.42	0.43	0.45	0.14	0.14	0.13	0.13	0.13
Allocation	0.83	0.80	0.78	0.78	0.76	0.60	0.58	0.57	0.57	0.54	0.19	0.19	0.20	0.21	0.21
Alternative	1.69	1.65	1.64	1.65	1.78	1.50	1.33	1.31	1.39	1.47	1.06	1.02	1.26	1.53	1.69
Commodities	1.44	1.16	1.15	1.25	1.22	0.53	0.56	0.66	0.67	0.65	0.96	0.67	0.63	0.80	0.76
All Funds	0.86	0.81	0.79	0.79	0.77	0.47	0.45	0.42	0.41	0.39	0.17	0.15	0.14	0.14	0.14

Exhibit 37 Annual Percent Change in Asset-Weighted Average Fee

	Change in Asset-Weighted Average Fees (%)														
	Bundled					Semibundled					Unbundled				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	-2.2	-3.4	-2.3	-1.2	-2.4	-4.5	-4.8	-7.5	-8.1	-5.9	-40.0	0.0	-8.3	0.0	-9.1
Sector Equity	-8.6	-15.1	-11.1	-7.5	-8.1	-3.1	-3.2	-1.7	1.7	-3.3	0.0	-10.0	-5.6	5.9	0.0
International Equity	-2.0	-4.0	-2.1	0.0	-5.4	-5.0	-3.5	-7.3	-5.9	-4.2	0.0	0.0	0.0	-4.5	-4.8
Taxable Bond	-5.5	-8.1	0.0	0.0	0.0	-7.1	-7.7	-2.8	-5.7	0.0	-4.3	-22.7	-5.9	6.3	11.8
Muni Bond	-7.1	-2.5	-2.6	6.7	8.7	-8.2	-2.2	-4.5	2.4	4.7	0.0	0.0	-7.1	0.0	0.0
Allocation	-2.4	-3.6	-2.5	0.0	-2.6	-4.8	-3.3	-1.7	0.0	-5.3	-5.0	0.0	5.3	5.0	0.0
Alternative	-7.7	-2.4	-0.6	0.6	7.9	-11.8	-11.3	-1.5	6.1	5.8	-16.5	-3.8	23.5	21.4	10.5
Commodities	2.1	-19.4	-0.9	8.7	-2.4	-7.0	5.7	17.9	1.5	-3.0	-18.6	-30.2	-6.0	27.0	-5.0
All Funds	-3.8	-4.8	-3.4	0.1	-2.6	-6.9	-4.5	-5.7	-4.4	-4.6	-3.4	-7.9	-6.5	0.6	-3.8

Exhibit 38 Equal-Weighted Average Fee by Service-Fee Arrangement

	Equal-Weighted Average Fees (%)														
	Bundled					Semibundled					Unbundled				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	1.35	1.32	1.32	1.32	1.31	0.72	0.70	0.69	0.70	0.68	0.53	0.53	0.54	0.54	0.54
Sector Equity	1.57	1.54	1.52	1.54	1.58	0.74	0.71	0.71	0.72	0.72	0.58	0.58	0.58	0.60	0.65
International Equity	1.48	1.45	1.44	1.40	1.40	0.81	0.79	0.79	0.79	0.76	0.72	0.71	0.73	0.70	0.70
Taxable Bond	1.17	1.14	1.13	1.15	1.14	0.55	0.52	0.51	0.52	0.51	0.45	0.41	0.42	0.46	0.47
Muni Bond	1.08	1.06	1.05	1.07	1.07	0.51	0.50	0.49	0.51	0.50	0.43	0.43	0.41	0.44	0.41
Allocation	1.36	1.35	1.37	1.37	1.36	0.80	0.78	0.78	0.79	0.79	0.58	0.57	0.58	0.60	0.60
Alternative	2.08	2.04	1.98	1.98	2.12	1.51	1.41	1.37	1.41	1.47	1.19	1.19	1.20	1.26	1.31
Commodities	1.56	1.47	1.46	1.46	1.47	0.85	0.79	0.77	0.78	0.74	0.73	0.65	0.64	0.70	0.70
All Funds	1.36	1.33	1.32	1.33	1.33	0.73	0.70	0.69	0.70	0.69	0.56	0.55	0.56	0.56	0.57

Exhibit 39 Annual Percent Change in Equal-Weighted Average Fee

	Change in Equal-Weighted Average Fees (%)														
	Bundled					Semibundled					Unbundled				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
U.S. Equity	-1.5	-2.2	0.0	0.0	-0.8	-4.0	-2.8	-1.4	1.4	-2.9	-1.9	0.0	1.9	0.0	0.0
Sector Equity	-0.6	-1.9	-1.3	1.3	2.6	-2.6	-4.1	0.0	1.4	0.0	0.0	0.0	0.0	3.4	8.3
International Equity	-1.3	-2.0	-0.7	-2.8	0.0	-2.4	-2.5	0.0	0.0	-3.8	1.4	-1.4	2.8	-4.1	0.0
Taxable Bond	-1.7	-2.6	-0.9	1.8	-0.9	-3.5	-5.5	-1.9	2.0	-1.9	-2.2	-8.9	2.4	9.5	2.2
Muni Bond	-1.8	-1.9	-0.9	1.9	0.0	-5.6	-2.0	-2.0	4.1	-2.0	-4.4	0.0	-4.7	7.3	-6.8
Allocation	-2.9	-0.7	1.5	0.0	-0.7	-2.4	-2.5	0.0	1.3	0.0	-3.3	-1.7	1.8	3.4	0.0
Alternative	-1.9	-1.9	-2.9	0.0	7.1	-2.6	-6.6	-2.8	2.9	4.3	-12.5	0.0	0.8	5.0	4.0
Commodities	-0.6	-5.8	-0.7	0.0	0.7	4.9	-7.1	-2.5	1.3	-5.1	-2.7	-11.0	-1.5	9.4	0.0
All Funds	-2.0	-2.1	-0.8	0.4	-0.1	-3.8	-4.0	-0.6	0.8	-1.8	-2.1	-2.8	1.1	1.4	0.7

Methodology

Methodology for US Fund Fee Study

- Most of the data for this report is compiled using the US Fund Fee Trends Interactive Research available via the Research + Analytics module in Morningstar Direct.
- Data for report exhibits not replicable via the Interactive Research tool are sourced from the US Funds Database in Morningstar Direct. Fund of funds, feeder funds, and money market funds are excluded.
- Fee data for the report and the Interactive Research tool is collected using a share class' annual report net expense ratio. A share class' annual report net expense ratio is defined as: The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's net asset value. Sales charges are not included in the expense ratio. It is collected on the publish date of each fund's annual report and is applied to the prior year.
- Asset-weighted average fees are a weighted average of the annual report net expense ratio for all share classes in the US Funds Database each year. The calculated weighted average is based on share class assets under management for a given year.
- Equal-weighted average fees are a simple average of the annual report net expense ratio for all share classes in the US funds database each year.
- Additional data definitions can be found in Morningstar Direct.

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