

Asset Management in an Era of Cost Pressure: An Index Response Disruption in the index industry can help both asset managers and investors.

Morningstar Inc.

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In this paper, we reach the following conclusions:

- ► Fees are falling across the asset-management industry not just in the U.S. but around the world.
- ► Falling fees are not just about the rise of passive index-trackers; investors are choosing cheaper funds for a variety of structural reasons.
- ▶ While investors benefit from lower fees, they represent a challenge for most asset managers.
- ▶ In contrast to asset management, the index industry has not experienced cost pressure.
- Disruption on the index side is inevitable; the Morningstar Open Indexes Project attempts to lower the cost of benchmarking, benefiting investors.

Fee pressure is being felt across the asset-management industry. According to Morningstar's 2018 annual fee study, U.S. fund fees fell 6% in 2018 on an asset-weighted basis. Fees declined across active and passively managed fund vehicles, mostly as a result of investors migrating to cheaper funds as opposed to fee cuts.

When investors view Exhibit 1, they see the roughly \$5.5 billion they saved compared with 2017. Asset managers, by contrast, see lower revenue and margin compression. It's no surprise that Morningstar equity analysts downgraded their outlook for publicly traded asset-management firms, citing *secular headwinds*. Though asset management remains a scalable business, where profit margins increase with assets, lower management fees pose a real threat. The bull market in equities since 2009 has hugely benefited the industry. While market appreciation has grown assets under management, less favorable future market conditions would reduce revenue and operating profits. A squeezed asset-management

¹ Warren, Greggory. New Era for U.S. Asset Managers: Shifting Balance of Power With Distributors and End Clients Has Narrowed Moats of Most Firms. Morningstar Asset Manager Observer. March 2019.

industry has been reducing workforces, turning to automation, pursuing mergers and acquisitions, and seeking opportunities to cut costs.

1.25%

1.00

0.75

Active

All Funds

Passive

2015

Exhibit 1 Asset-Weighted Average Fees for Funds Declined 6% in 2018.

2005

Source: Morningstar U.S. Fee Study. Data as of April 2019.

0.25

2000

Falling fund fees and a pressured asset-management industry are not just U.S. phenomena. The biannual Morningstar Global Investor Experience Study published in 2019 concluded that the "majority of the 26 markets studied saw the asset-weighted median expense ratios for locally domiciled and available for sale funds fall since the 2017 study." The impact on profits is profound. Prometeia, an Italian consultancy, forecasts the profit pool for Europe's mutual fund industry shrinking from EUR 79 billion in 2018 to EUR 74 billion in 2019, based on its analysis of more than 40,000 funds. Profit margins, measured as share of assets, are predicted to shrink from 79 basis points to 72.

2010

The falling fee trend is most dramatically manifest in the relentless redemptions from actively managed funds and inflows into low-cost passive vehicles. This phenomenon is most pronounced in the U.S. market, though "passive share" is rising in markets across the globe. And while certainly not confined to equities, it is on the equity side — specifically U.S. funds invested in U.S. equities — where assets in passive funds have surpassed those in active funds.

² Global Investor Experience Study: Fees and Expenses. Morningstar. 17 September 2019.

³ Flood, Chris. "Profits at European fund managers forecast to fall 6%." Financial Times. Aug. 10, 2019.

1,500

10-Year Cumulative Flows for Active-Passive U.S. Equity

1,000

1,000

-1,500

-1,500

2009- 2010- 2011- 2011- 2012- 2012- 2013- 2014- 2014- 2015- 2015- 2016- 2018- 2017- 2018- 2018- 2019- 05 12 07 02 09 04 11 06 01 08 03 10 05 12 07 02 09 04

Exhibit 2 In Aggregate, Assets Have Flowed From Active to Passive in the U.S. Market

Source: Morningstar Direct. Data as of April 2019.

Critical to note, however, is that investor preference for lower-cost investments is not identical to a preference for passive investments. Even within the universe of U.S.-domiciled active funds, investors have sent their dollars to cheaper options. While active funds overall have been redeemed heavily by investors, drilling down into the data reveals that pockets of active have taken in money—namely, the cheapest 20% of active funds.



Exhibit 3 Within the Actively Managed Fund Universe, Low Cost Has Garnered Inflows

Source: Morningstar Direct. Data as of December 2018.

The aforementioned Global Investor Experience Study enumerates a number of drivers of the global trend toward declining fees:

- ► Regulation: The U.K. Retail Distribution Review, which bans fund commissions, Australia's Future of Financial Advice and subsequent Royal Commission, the Securities and Exchange Board of India's expense ratio caps, and the European Markets in Financial Instruments Directive are top-down measures that have led to lower fees.
- Awareness: Thanks to media messages and research from the likes of Vanguard, Morningstar, and others, investors are increasingly focused on cost. This may also be an outgrowth of the global financial crisis and the desire to control what one can amid uncertainty. The failure of most active funds to protect investors from losses has left many scars.
- ► Unbundling: The move toward fee-based financial advice has spurred demand for lower-cost funds like passives, exchange-traded or otherwise. Costlier share classes that embed advice and distribution fees have declined in popularity.
- ► Competition: Asset managers have cut fees to vie for market share.
- ▶ Disintermediation: Online fund buying channels that bypass financial advisors send assets to funds with no embedded advice.

This last point is connected to another important trend—the rise of managed portfolios with built-in asset allocation. In the wake of the global financial crisis, many investors and advisors are less interested in constructing their own portfolios out of narrow building blocks aimed at beating a benchmark. Rather, they want to achieve a particular outcome—retirement, higher education savings, income, or absolute return. Asset managers have spotted an opportunity to assemble portfolios of their own funds, under the "solutions over products" banner. From target-date mutual funds to gatekeeper-built models offered by broker/dealers and other wealth managers to ETF managed portfolios, these solutions favor low-cost, usually passive building blocks. According to Morningstar research, more than one third of model portfolios invest greater than 80% of assets in passive underlying funds. The same report links the moves by discount brokerages Charles Schwab, TD Ameritrade, and Fidelity to eliminate trading commissions on ETFs to the rise of model portfolios investing in them.

Fee pressure shows no signs of abating. Consider the title of a March 2019 Morningstar Equity Research report: New Era for U.S. Asset Managers: Shifting Balance of Power with Distributors and End Clients Has Narrowed Moats of Most Firms. Among the secular headwinds mentioned facing the industry are a world where retail and institutional intermediaries are seeking out passive products, as well as increased oversight of distribution renumeration on the part of regulators and policymakers.

Regulation, litigation, and investor preference are pushing the world toward a more fiduciary model, where recommendations must be made in the best interest of clients. Low-cost funds benefit in this

⁴ Model Portfolios Show How Low Fees Can Go. Morningstar Manager Research. Kephart, Jason; DiBenedetto, Gabrielle; Milson, Adam; Pacholok, Megan. October 2019.

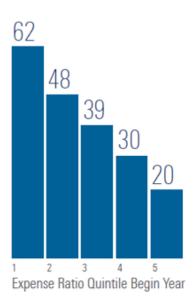
⁵ Warren, Greggory. New Era for U.S. Asset Managers: Shifting Balance of Power With Distributors and End Clients Has Narrowed Moats of Most Firms. Morningstar Asset Manager Observer. March 2019.

environment. Just as "Nobody got fired for buying IBM," putting a client into a low-cost (often passive fund), is viewed as the safe choice. Even Warren Buffett, who made his name and fortune exploiting market inefficiencies, has remarked that index funds "make the most sense practically all of the time."

Low Fees Are Good for Investors

The importance of low fees has been preached from many pulpits over the years, from Vanguard founder Jack Bogle to the academic community to Morningstar. Morningstar Manager Research Director Russel Kinnel has run a succession of studies over the years, all concluding that lower-cost funds have a performance advantage, validating Bogle's maxim: "In investing, you get what you don't pay for." In a 2016 study, Kinnel showed that higher-cost funds are much more likely to fail and to be merged away. Exhibit 4 shows the performance of quintiles of U.S. equity funds between 2010 and 2015, exhibiting a monotonic relationship.

Exhibit 4 Low Costs Are the Path to Success — Subsequent Total Return Success Ratio



U.S. Equity

Source: Morningstar. Data as of Dec. 31, 2015.

Kinnel's conclusions were corroborated more recently in a study by Morningstar's Global Head of Manager Research Jeffrey Ptak. He examined the rolling returns and fees of all domestic U.S. equity funds from September 1998 to August 2018, adjusting for survivorship. While Ptak observed a narrowing of the performance gaps between funds and a narrowing in fee differences between funds, cost has only become a larger factor in explaining performance differences.⁷

⁶ Kinnel, Russel. "Predictive Power of Fees: Why Mutual Fund Fees Are So Important," Morningstar Manager Research. May 2016. 7 Ptak, Jeffrey. "Are Falling Fund Fees Too Much of a Good Thing?" Fund Spy. Morningstar. Sept. 24, 2018.

Morningstar's semiannual Active/Passive Barometer Report tells the same story. The study measures the performance of the average dollar invested in active funds against the average dollar invested in passive funds (as opposed to uninvestable and costless benchmarks) within the same Morningstar categories. *Success rates* refer to active funds' ability to both outperform and survive. The study compares the performance of higher-cost active against lower-cost active. Exhibit 5 demonstrates the performance struggles of active funds, especially within the hypercompetitive U.S. equities space. It also shows that investors tilt the odds in their favor by selecting a cheaper active fund as opposed to an expensive one.

Exhibit 5 Cheaper Active Fu	ınds Have	Higher Su	ccess Rat	es				
							10-Year	10-Year
Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year	(Lowest Cost)	(Highest Cost)
U.S. Large Blend	32.3	29.0	13.6	8.0	14.5	18.0	18.7	1.1
U.S. Large Value	34.4	33.3	15.9	7.0	20.4	12.1	18.8	1.4
U.S. Large Growth	54.3	38.8	30.5	8.0	12.0	_	14.6	3.1
U.S. Mid Blend	46.3	26.5	14.3	7.7	8.1	11.6	13.8	0.0
U.S. Mid Value	32.0	33.3	23.8	11.6	26.9	_	16.0	4.2
U.S. Mid Growth	79.1	59.5	54.0	29.8	26.9	_	40.4	24.0
U.S. Small Blend	45.3	29.3	26.0	22.1	19.3	34.0	39.5	18.9
U.S. Small Value	45.1	44.8	39.3	39.5	25.7	_	47.8	21.7
U.S. Small Growth	75.8	61.3	52.8	35.2	26.3	_	38.3	23.4
Foreign Large Blend	29.8	29.7	32.6	32.3	31.2	37.1	34.2	16.7
Foreign Large Value	8.5	23.4	44.1	32.6	_	_	36.8	15.8
Foreign Small-Mid Blend	34.5	21.4	24.0	82.4	_	_	100.0	100.0
World Large Stock	55.2	46.6	33.7	31.8	28.7	_	41.2	17.6
Diversified Emerging Markets	33.9	43.4	55.8	49.0	_	_	66.7	28.6
Europe Stock	20.8	13.6	23.8	48.1	34.2	_	83.3	33.3
U.S. Real Estate	56.9	31.9	38.8	35.1	32.8	27.1	53.3	26.7
Global Real Estate	76.4	19.7	51.9	38.6	_	_	33.3	11.1
Intermediate Core Bond	26.8	52.6	34.9	31.3	16.6	9.5	44.4	17.1
Corporate Bond	13.2	68.8	57.8	61.5	_	_	83.3	60.0
High Yield Bond	37.7	57.7	43.1	57.4	_	_	67.9	51.9

Source: Morningstar. Data and Calculations as of 6/28/19.

Not only do low-fee funds drive superior returns, they are also better used by investors. In its annual "Mind the Gap" study, Morningstar found that the difference between total returns and money-weighted returns was smallest for lowest-cost funds. Across asset classes, investors have proved less likely to mistime their purchases and sales of cheap funds. This could owe to low-cost funds' usage as strategic portfolio building blocks. Or it could be that investors are less apt to lose faith in a fund that is simply tracking an index rather than in human manager.

^{*} Green/red shading indicates that active funds in this fee quintile had above/below average success rates

Total Broad Category Exp Ratio Investor Group Quintile Return Return Gap Allocation 1 5.85 6.24 -0.382 5.04 5.78 -0.733 4.42 5.52 -1.1 4 4.43 5.08 -0.66 5 3.81 4.61 -0.8 1 6.56 7.66 -1.1 Equity 2 -1.49 5.63 7.12 3 -1.54 5.27 6.81 4 4.81 6.41 -1.6 5 3.59 5.79 -2.2Fixed Income 1 3.52 4.31 -0.792 -0.83 3.27 4.11 3 3.14 4.02 -0.883.73 4 2.61 -1.125 2.8 3.42 -0.620 2 8

Exhibit 6 Lower-Fee Funds Produce Better Investor Outcomes

Source: Kinnel, Russel. "Mind the Gap" Study. Morningstar Fund Investor. Data as of December 2018.

Indexes Take Center Stage

The shift from active to passive management has greatly benefited the index industry. Originally intended as analytical tools and yardsticks to measure active managers, indexes increasingly underlie investment strategies. With trillions in assets tracking their benchmarks—both traditional and of the "smart beta" or "strategic-beta" variety—index providers have found themselves with enormous power. Their decisions on issues like market inclusion, sector classification, and governance standards reverberate across the globe.

Not just anyone can build a market index. Good indexing starts with a long-running, high-quality data set that reflects not just securities' price movements, but also corporate actions, such as dividends, mergers and acquisitions, rights issues, and spin-offs. On the equity side, there are initial public offerings and delistings to capture. On the bond side, there's corporate issuance and asset backed, as well as the debt of governments, local authorities, and agencies. A vast range of debt securitizations span different rates, maturities, and cash flow structures. Collecting and cleaning this data is a major barrier to entering the index world.

Over the years, best practices around benchmark design have emerged. Data must be complete and accurate. Index rules must be clear and published. For market-exposure indexes, balances must be struck between completeness and investability, between minimizing turnover and providing an accurate reflection of ever-changing markets. Regulators, who are increasing their scrutiny of the industry, have noted that it's not enough for a benchmark to be soundly constructed, it must also be trusted and well-established.

The index industry has consolidated. Thanks to mergers and acquisitions, a few providers control the bulk of market share. According to the *Financial Times*, 73% of mutual fund assets are benchmarked to indexes from one of just three providers. These indexes are often incorporated into investment policy statements and are remarkably sticky.

Industries dominated by just a few players that benefit from high switching costs tend to exert pricing power. Unsurprisingly, index licensing fees have trended upward. Anecdotally, they have risen past the rate of inflation—by some accounts doubling or tripling over a five-year period. Benchmarking data has been cited by some asset managers as a top-five data expense.⁸

Index licensing fees ultimately affect costs. Consider quotes from two industry leaders:

- ► "What we have seen over the last several years is that a larger and larger percentage of the total expense ratio has been eaten by index licensing fees." Joel Dickson, Vanguard ⁹
- "Index fees are a real problem. These providers are an oligopoly and the prices they charge are out of line with the value they add." – Yves Perrier, Amundi¹⁰

Market Exposure Is a Commodity: Don't Overpay

Perrier's quote hits on a critical point. While creating an index isn't simple, the end products tend to be undifferentiated—at least on the market exposure, or beta, side. While the smart-beta phenomenon has dramatically raised the complexity level for rules-based passive investment strategies—two index providers can define a factor like quality quite differently—benchmarks that represent the market are commoditized. Indexes built to represent an investor's opportunity set typically look and act similarly. The reason is the commonly employed approach of weighting constituents by market capitalization, or the total market value of their outstanding shares. Indexes that distribute weight in proportion to security size typically end up with similar composition.

A 2016 paper produced by the Spaulding Group, in conjunction with BNY Mellon, State Street, and Northern Trust, came to the same conclusion:

⁸ Arya, Sanjay "Redefining the Indexing Landscape: Introducing a New Era for Benchmarking Costs and Index Derivatives." Morningstar. October 2017.

⁹ Joel Dickson Interview on Morningstar.com. Oct. 3, 2012.

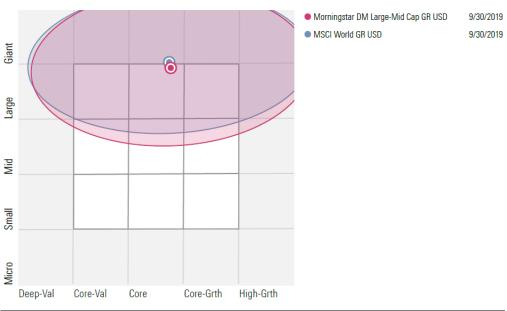
¹⁰ Yves Perrier quoted in Financial Times, "Index Companies to feel the chill of fund managers' price war." May 19, 2019.

"There is minimal difference between several index providers that serve the U.S. and global equity markets in terms of performance; while methodology varies among indexes, those variances are largely tempered by capitalization weighting."¹¹

The interchangeability of benchmarks is borne out in the following case studies, which compare Morningstar indexes to competitors across a number of asset classes. Both holding-based and returns-based comparisons are included.

The first pair of indexes focus on developed-markets equities in the large- and mid-capitalization portion of the market. These indexes include thousands of securities from roughly 25 countries, and upwards of one dozen currencies. Yet, despite all these moving parts, when the weighted averages of their constituent-driven attributes are plotted on the Morningstar Style Box, they net out extremely similarly. On the vertical axis is market capitalization. The horizontal axis represents investment style driven by a 10-factor Style Box model that includes metrics such as price/earnings and price/cash flow.

Exhibit 7 Holding-Based Style Map Comparison: Morningstar Developed Market Large-Mid Cap Index/MSCI World Index



Source: Morningstar Direct.

Unsurprisingly, this has resulted in very similar returns.

¹¹ The Spaulding Group. "Are All Market Indexes Created Equal?" 2016.

As of Date: 9/30/2019 Calculation Benchmark: MSCI ACWI NR USD 20.0 18.0 16.0 14.0 12.0 10.0 8.0 6.0 0.0 Return 0.0 YTD 1 Year 3 Years 5 Years 10 Years

MSCI World GR USD

 $\textbf{Exhibit 8} \ \ \textbf{Trailing-Returns Comparison: Morningstar Developed Market Large-Mid Cap Index/MSCI World Index}$

Source: Morningstar Direct.

■Morningstar DM Large-Mid Cap GR USD

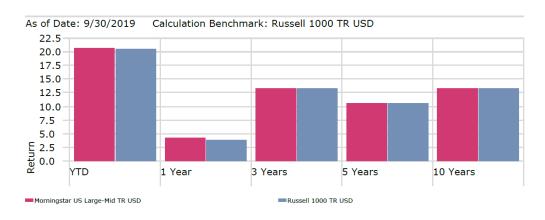
In narrower, less complex segments, such as the top end of U.S. equity market, the holding-based similarity looks even tighter.



Exhibit 9 Holding-Based Style Map Comparison: Morningstar US Large-Mid Cap Index/Russell 1000 Index

Source: Morningstar Direct.

Exhibit 10 Trailing-Returns Comparison: Morningstar US Large-Mid Cap Index/Russell 1000 Index

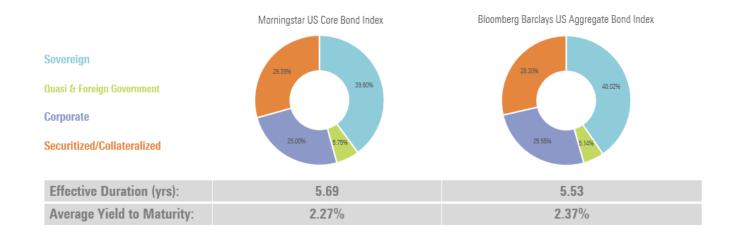


Source: Morningstar Direct.

On the fixed-income side, there are a huge number of constituents to capture and many layers of complexity. Yet on parameters such as sector composition, credit quality, interest-rate sensitivity, and yield, bond indexes reflecting the same investable universe net out very similarly.

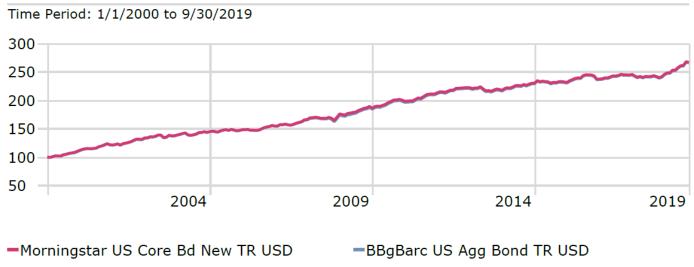
Consider the following two sets of comparisons. For the holding-based analysis, the Morningstar bond index is shown against an ETF tracking a comparable bond index for the purpose of data transparency.

Exhibit 11 Holdings-Based Comparison: Morningstar U.S. Core Bond Index/Bloomberg Barclays US Aggregate Bond Index proxied by iShares Core US Aggregate Bond ETF (AGG)



Source: Morningstar. Data as of Sept. 30, 2019.

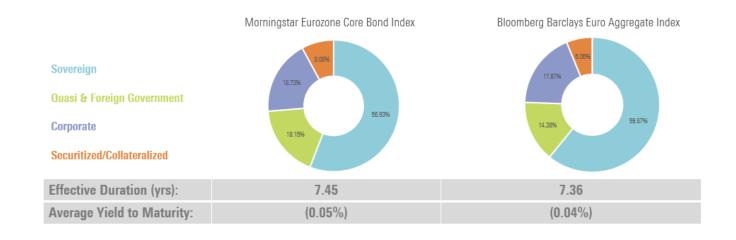
Exhibit 12 Investment Growth Comparison: Morningstar U.S. Core Bond Index/Bloomberg Barclays U.S. Aggregate Bond Index



Source: Morningstar Direct.

Next, we compare the Morningstar Eurozone Core Bond Index to a comparable benchmark, using an ETF tracker as a holdings-based proxy for the purposes of data transparency.

Exhibit 13 Holdings-Based Comparison: Morningstar Eurozone Bond Index /Bloomberg Barclays Euro Aggregate Bond Index proxied by SPDR Bloomberg EUR Aggregate Bond ETF (SYBA)



Source: Morningstar. Data as of Sept. 30, 2019.

And on the returns side, the two indexes have produced very similar results.

Exhibit 14 Investment Growth Comparison: Morningstar Eurozone Core Bond Index/Bloomberg Barclays Euro Aggregate Bond Index





-Morningstar Eurozone Bd TR EUR

BBgBarc Euro Agg 500MM TR EUR

Source: Morningstar Direct.

The Vanguard Precedent

In 2012, Vanguard shocked the asset-management industry by swapping benchmarks tracked by 22 of the firm's index funds and ETFs. For funds focused on U.S. equities, Vanguard transitioned from MSCI to equivalent benchmarks built by the University of Chicago's Center for Research in Security Prices. On the ex-U.S. equity side, Vanguard switched to FTSE. The changes affected funds with a total of \$537 billion in investor assets, which then represented one fourth of the firm's asset base.

"There were three main reasons for this change: cost, cost, and cost," said Vanguard executive Joel Dickson in a 2012 video interview for Morningstar.com. Dickson explained that Vanguard was reacting to rising index licensing fees, which represent an ever-larger percentage of index-tracking funds' expense ratios. As a firm owned by its fundholders, Vanguard constantly looks for opportunities to cut costs and pass along savings to investors.

"Through a series of best practices that most of the index providers have converged to over the years, the differences...are relatively small," said Dickson. In fact, this was not the first time Vanguard switched fund benchmarks. The Vanguard Total (U.S.) Stock Market Index Fund tracked the Dow Jones US Total Stock Market Index (formerly the Dow Jones Wilshire 5000 Index) from 2001 to 2005, the MSCI U.S. Broad Market Index from 2005 to 2012, and the CRSP U.S. Total Market Index since 2012. It carries a 0.14% expense ratio, a top performance ranking, and more than \$800 billion in assets.

Vanguard sent the message that benchmarks are interchangeable and should be priced accordingly. If you are willing to undertake the effort to switch index providers, significant cost savings can be achieved.

Morningstar Open Indexes Project

The market-driven solution to rising index licensing fees is increased competition. The benefits of using a neutral third-party benchmark are clear. Independence matters when it comes to indexing. But costs should reflect that investors, advisors, asset managers, and other market participants have much to gain by more choice among indexes. Not only will increased competition lower costs, it will provide a more robust tool kit with which to power investment decisions and asset allocation.

Indexes have immense utility as analytical tools. They help investors understand risk and return, assemble diversified portfolios, and measure performance. Indexes power portfolio optimization models; they define asset classes, market segments, and economic groupings.

The paradox of increasing index licensing costs at a time of downward fund fee pressure and undifferentiated products drove Morningstar to act in 2016. Inspired by the concept of open-source software, Morningstar launched an initiative called the Open Indexes Project with the goal of making benchmarking more accessible. Morningstar is offering a subset of its global market-cap equity index series—roughly 125 unique indexes—available at no cost for benchmarking. Asset managers, wealth managers, and asset owners can use constituent-level and return-level data at no charge. Open Indexes also supports asset managers in providing low-cost investment products through a disruptive fee model.

The initiative has gained traction worldwide. Actively managed equity funds in the U.S. and Europe have adopted Morningstar indexes as prospectus benchmarks. Several asset managers have launched bargain-price vehicles tracking Morningstar beta indexes. More than 100 institutions are taking Morningstar index data, scrutinizing it, and running it in parallel to paid-for benchmarks. Whereas strategic beta indexes embed research and can differ substantially, market-exposure indexes are a commodity product.

Open Indexes has a simple goal: lower the cost of benchmarking, bring fees down for investors, and improve outcomes.

About Morningstar Indexes

Morningstar Indexes combine the science and art of indexing to give investors a clearer view into the world's financial markets. Our indexes are based on transparent, rules-based methodologies that are thoroughly back-tested and supported by original research. Covering all major asset classes, our indexes originate from the Morningstar Investment Research Ecosystem — our network of accomplished analysts and researchers working to interpret and improve the investment landscape. Clients such as exchange-traded fund providers and other asset management firms work with our team of experts to create distinct, investor-focused products based on our indexes. Morningstar Indexes also serve as a precise benchmarking resource.

To learn more about Morningstar Indexes, visit: http://global.morningstar.com/indexes

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