

## Thought leadership

# A time-tested approach for pursuing market premiums



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“John Hancock Multifactor ETFs, which track indexes designed by Dimensional Fund Advisors, are built to tap into market factors that have been shown to generate premiums over time.”

## Key takeaways

- In designing our suite of John Hancock Multifactor ETFs, we turned to Dimensional Fund Advisors and their emphasis on equity characteristics—smaller capitalization, lower relative price, and higher profitability—that have demonstrated outperformance over time.<sup>1</sup>
- Although in any given year any or all of the factors in Dimensional’s model could underperform, more often than not, Dimensional’s factors have outperformed over both the short and long term.
- While this multifactor approach has been shown to offer benefits over the shorter term, the longer the investment holding period, the more likely those factors were to deliver a positive market premium.<sup>2</sup>
- Over the long term, the performance advantage of Dimensional’s multifactor approach has been significant.

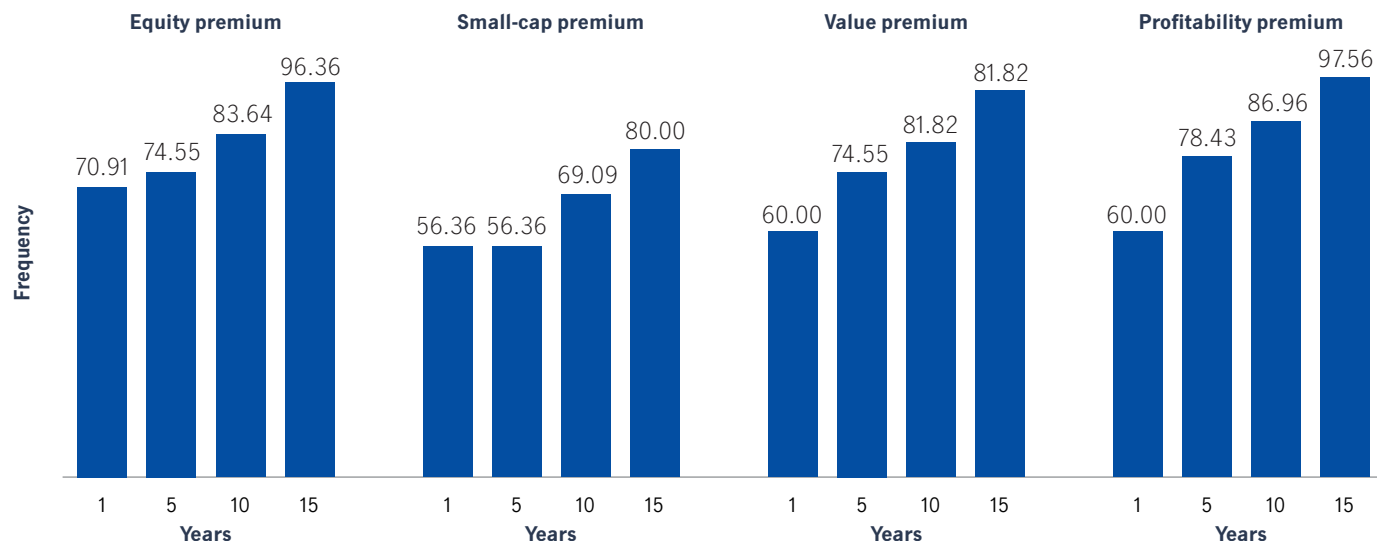
## Executive summary

In September 2015, when we entered the exchange-traded fund (ETF) business with the launch of our suite of John Hancock Multifactor ETFs, it was after years of research and deliberation over how these products would stand out and offer investors real value in an already crowded market. This is the same process we use to vet any potential fund offering, and it’s one we’ve honed over our 25+ years as a multimanager.

In working with Dimensional—a company considered one of the pioneers of multifactor investing—to design our suite of ETFs, we sought to craft investment strategies that were meant to serve as core, long-term holdings with the potential to outperform purely passive, market-cap-weighted strategies. Broadly speaking, that’s what strategic beta strategies seek to deliver: the potential for outperformance by emphasizing specific segments of the market. John Hancock Multifactor ETFs, which track custom indexes designed by Dimensional, are built to do just that by tapping into factors that have historically generated premiums over time and across equity markets around the world.

**The longer the time horizon, the more likely these factors were rewarded**

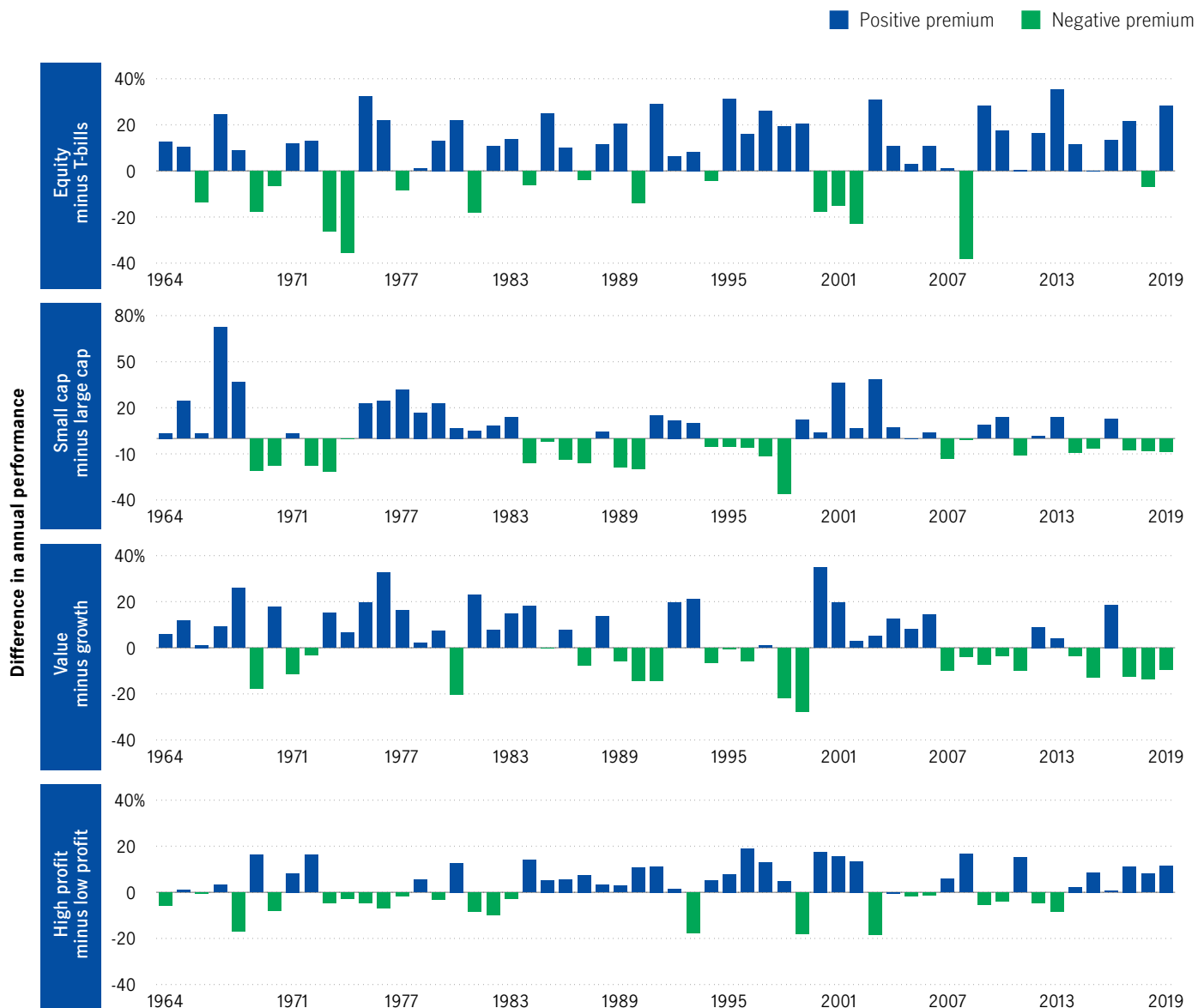
Frequency that a factor generated a positive premium, over rolling time periods, from 1/1/64–12/31/18



Source: John Hancock Investment Management, Morningstar, Ibbotson, Professor Kenneth R. French, [mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html), 2018. The bars in the chart above represent the frequency with which each of the four factors has generated a positive premium over various time periods. For example, equities have generated a positive premium versus T-bills roughly 70% of the time over 1-year holding periods since 1964. This is the equity premium. Over rolling 5-, 10-, and 15-year holding periods, equities offered a positive premium approximately 77%, 85%, and 96% of the time, respectively. The probability of a positive market premium is calculated monthly over rolling 1-, 5-, 10-, and 15-year time periods. This data does not portray results of indexes. See page 4 for complete methodology. Past performance does not guarantee future results.

### Dimensional's four factors have offered premiums more often than not

Annual premiums associated with equity, size, relative price, and profitability: U.S. markets



Source: John Hancock Investment Management, Morningstar, Ibbotson, Professor Kenneth R. French, [mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html), 2019. The data shown above reflects the historical differences in performance between market factors. For example, the data presented in “Equity minus T-bills” represents the historical return for equities minus the historical return for U.S. Treasury bills by calendar year since 1964, the first year when reliable data was available for all four sets of comparisons. This data does not portray results of indexes. See page 4 for complete methodology. Past performance does not guarantee future results.

## The benefits of a multifactor approach

Dimensional has spent more than 30 years researching which factors offer the best chances of improving a portfolio's performance over the long term. A landmark 1992 study by University of Chicago Professor Eugene Fama and Dartmouth College Professor Kenneth French argued that, based on history, focusing on smaller stocks and those with lower relative prices<sup>3</sup> may improve a portfolio's expected return.<sup>4</sup> Subsequent research conducted by University of Rochester Professor Robert Novy-Marx identified profitability<sup>5</sup> as another factor that enhances expected returns.<sup>6</sup> Today, Dimensional offers investment solutions built on the idea that combining these specific factors, borne out by decades of rigorous research, can produce better outcomes for investors over the long term.

## The longer the time horizon, the more likely these factors were rewarded

While Dimensional's factor-driven model has much to support it, it's important to note that there is no guarantee that each or any of the four factors will outperform from year to year. Take, for example, the first and most uncontested factor in Dimensional's model: the idea that stocks outperform T-bills over time. Investors know that stocks come with no guarantee; the equity markets are volatile and years with losses are not uncommon. But investors also know that stocks offer the potential to significantly outperform risk-free assets, such as T-bills, over time.

It's no surprise, then, that the longer an investor maintains exposure to a certain factor, the more likely that factor has been shown to deliver a positive result. Over rolling

one-year periods since 1964, small-cap stocks, for example, delivered a positive premium over larger stocks nearly 54% of the time. Stocks with low relative prices and high profitability, meanwhile, each outperformed their counterparts about 60% of the time. When those holding periods were increased to rolling ten-year periods, the chances of any of the four factors outperforming jumped to at least 74%.<sup>7</sup> While past performance doesn't guarantee future results, we believe this data makes a compelling case for this factor-based approach: Not only has each factor demonstrated a better likelihood of outperforming over the short term, but over longer periods the likelihood of a positive premium increased significantly.

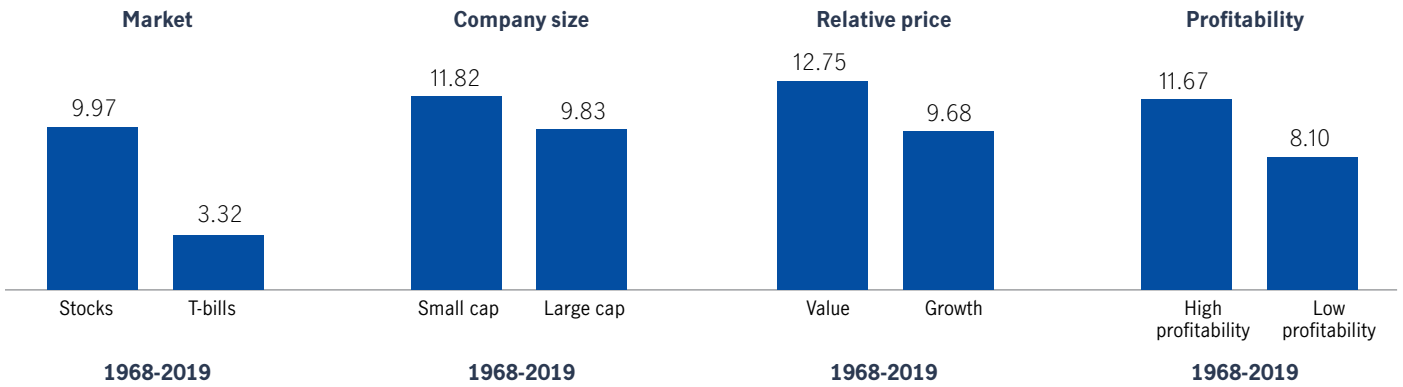
## A factor-based approach that has delivered measurable results

Of course, from year to year, there's no telling whether smaller-cap, lower relative price, or higher profitability stocks will outperform their respective counterparts. Looking back over the past 50+ years, the answer is that those factors frequently *do* outperform, but to have predicted when they would outperform is an impossible task.

Again, while these studies are backward looking and do not guarantee future results, we believe this data strongly makes the case for biasing a long-term equity portfolio in favor of the size, relative price, and profitability factors that Dimensional's research suggests do indeed offer premiums.

**Stocks characterized by smaller capitalizations, lower relative valuations, and higher profitability have outperformed over time**

Average annual total returns (%)



Source: John Hancock Investment Management, Morningstar, Ibbotson, Professor Kenneth R. French, [mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html), 2019. Professor French's study on premiums examines the most reliable long-term data available, which dates back to 1927 for market, company size, and relative price and to 1964 for profitability metrics. This data does not portray results of indexes. Past performance does not guarantee future results.

**1** The study by Professor Kenneth French on page 3 demonstrates the historical tendency of stocks characterized by smaller size, lower relative price, and higher levels of profitability to outperform over time. **2** A premium represents the excess return that securities with particular characteristics have historically generated. **3** Relative price as measured by the price-to-book ratio; value stocks are those with lower price-to-book ratios. **4** "The Cross-Section of Expected Stock Returns," Eugene F. Fama and Kenneth R. French, *Journal of Finance*, June 1992. **5** Profitability is a measure of current profitability, based on information from individual companies' income statements. **6** Robert Novy-Marx provides consulting services to Dimensional Fund Advisors LP. **7** John Hancock Investment Management, Morningstar, Ibbotson, Professor Kenneth R. French, 2016.

The charts on pages 2 and 3 are based on the performance for different groupings of stocks within the broad equity universe. A premium represents the excess return that securities with particular characteristics have historically generated. The chart above shows historical geometric mean performance for different groupings of stocks within the broad equity universe. This universe, or market, includes stocks listed on the NYSE, AMEX, and NASDAQ exchanges. The research does not portray results of indexes. T-bill data is from Morningstar, Ibbotson. In order to assess returns of stocks with different characteristics, researchers Eugene Fama and Kenneth French grouped stocks according to size, relative price, and profitability. For groupings based on company size, stocks were ranked by market capitalization, where small cap represents stocks of companies in the bottom 30% of the universe and large cap represents stocks of companies in the top 30% of the universe. For groupings based on relative price, stocks were ranked by book-to-market equity ratios, where value represents stocks of companies in the top 30% of the universe and growth represents stocks of companies in the bottom 30% of the universe. For groupings based on profitability, stocks were ranked by operating profitability (annual revenues minus the cost of goods sold, interest expense, and selling, general, and administrative expenses, divided by book equity), where high profitability represents stocks of companies in the top 30% of the universe and low profitability represents stocks of companies in the bottom 30% of the universe. Drs. Fama and French are directors of and provide consulting services to Dimensional Fund Advisors LP. Diversification does not guarantee a profit or eliminate the risk of a loss. Selection of other periods may produce different results, including losses. Past performance does not guarantee future results.

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