Manulife Investments | John Hancock

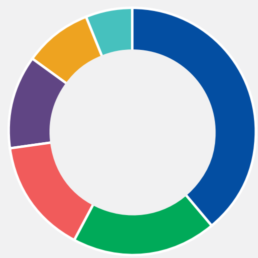
A closer look at Dimensional Fund Advisors

A time-tested approach from a pioneer in multifactor investing

At Manulife John Hancock Investments, we believe investors can benefit from a blend of factors working together to drive performance. That's why we brought our multimanager approach to the exchange-traded fund (ETF) market in 2015, teaming up with Dimensional Fund Advisors, a company regarded as one of the leaders in strategic beta investing.[1]

Dimensional Fund Advisors at a glance

Dimensional investment strategies: assets under management



- U.S. equities **39%**
- Non-U.S. developed equities **19%**
- Fixed income **15%**
- Global equity **12%**
- Emerging-market equities **9%**
- Other **6%**

Dimensional

- Founded in 1981
- $915 billion in global assets under management
- 15 offices in 10 countries; portfolio management and trading on 4 continents
- Over 1,600 employees

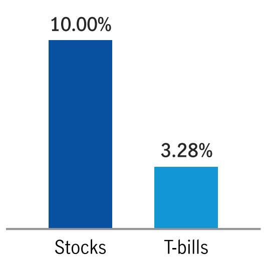
All data is as of 9/30/25. Numbers may not equal 100% due to rounding.

A strategy rooted in rigorous academic research

Dimensional's approach to investing is guided by decades of academic research, such as the groundbreaking work of Professors Eugene Fama and Kenneth French, leading financial economists who currently serve as members of the firm's board of directors. Today, Dimensional offers investment solutions built on the idea that combining specific factors—borne out by years of rigorous research—can produce better outcomes for investors over the long term.

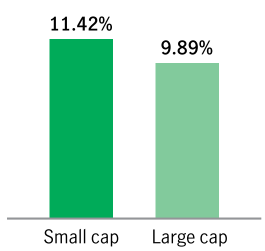
Stocks characterized by smaller capitalizations, lower relative valuations, and higher profitability have outperformed over time

Market



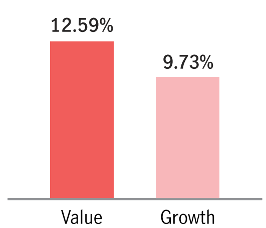
(1928–2024)
Equity premium—stocks over T-bills

Company size



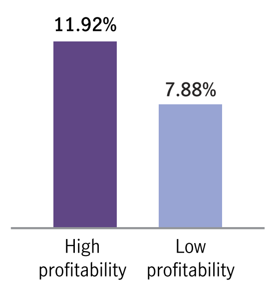
(1928–2024)
Small-cap premium—small company stocks over large company stocks

Relative price



(1928–2024)
Value premium—value stocks over growth stocks

Profitability[2]



(1965–2024)
Profitability premium—stocks of highly profitable companies over stocks of less profitable companies

Source: Manulife John Hancock Investments, Morningstar, Ibbotson, Professor Kenneth R. French, mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html, 2024. 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. 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. Dimensional is a trademark of 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.

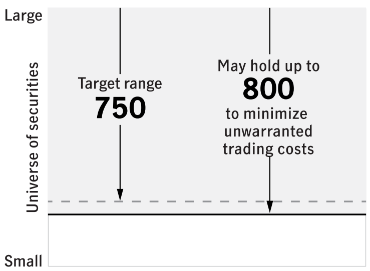
Multifactor investing in practice: building a better index

Dimensional strives to identify the factors that drive higher expected returns and add value through constructing portfolios and indexes that weight those factors accordingly and in a cost-effective manner.

Index approach

Market exposure

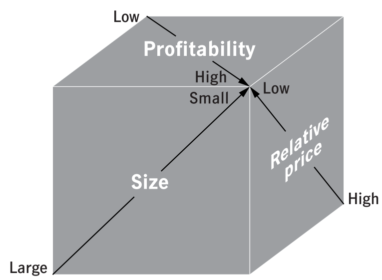
Define the target range of securities for the specific index.



Example shown is for John Hancock Dimensional Large Cap Index.[4] Hold range could include up to 800 securities.

Portfolio structure[2]

Weight the index to emphasize smaller companies, lower valuations, and higher profitability.[3]



Implementation

Incorporate measured flexibility to maintain focus on the appropriate factors while balancing the trade-offs among competing premiums and control for unnecessary turnover and trading costs through the use of Index Memory® and innovation between rebalances:

- **Momentum screens—**Low momentum securities are flagged for no additional buys.
- **Small weight changes—**Avoid making changes that do not meaningfully improve the expected return-and-risk profile of the overall index.
- **Enhanced redistributions—**When sizable securities are removed, proceeds are allocated to increase factor exposure and potentially reduce turnover.

John Hancock Multifactor ETF lineup

- Large Cap ETF **(JHML)**
- Mid Cap ETF **(JHMM)**
- Small Cap ETF **(JHSC)**
- Developed International ETF **(JHMD)**
- Emerging Markets ETF **(JHEM)**

Index Memory is a registered trademark of Dimensional Fund Advisors LP.

1 Strategic beta—along with multifactor investing, smart beta, fundamental indexing, and a few other related expressions—broadly refers to a diverse and growing category of rules-based approaches to investing in various markets. **2** The portfolio structure of John Hancock Multifactor Small Cap ETF is based on an index composition process that companies with the lowest profitability and highest relative price are eliminated from the index. In addition, companies with high investment (measured by annual asset growth) are also eliminated. **3** Profitability is a measure of current profitability, based on information from individual companies' income statements. **4** John Hancock Dimensional Large Cap Index is a rules-based index of large-cap U.S. stocks that have been selected based on sources of expected returns. Securities eligible for inclusion in the index are classified according to their market capitalization, as defined by free-float market cap; relative price, as defined by price/book; and profitability, as defined by operating income over book, and are weighted accordingly in favor of smaller, less expensive, more profitable companies. The index is reconstituted and rebalanced on a semiannual basis. Index performance assumes reinvestment of dividends and, unless otherwise indicated, does not reflect the management fees, operating expenses, transaction costs, and other expenses that apply to an ETF. It is not possible to directly invest in an index. Past performance does not guarantee future results.

Investing involves risks, including the potential loss of principal. There is no guarantee that a fund's investment strategy will be successful. Large company stocks could fall out of favor. The stock prices of midsize and small companies can change more frequently and dramatically than those of large companies, and value stocks may decline in price. Foreign investing, especially in emerging markets, has additional risks, such as currency and market volatility and political and social instability. A fund concentrated in one sector or that holds a limited number of securities may fluctuate more than a more broadly diversified fund. John Hancock Multifactor ETF shares are bought and sold through exchange trading at market price (not NAV), and are not individually redeemed from the fund. Shares may trade at a premium or discount to their NAV in the secondary market. Brokerage commissions will reduce returns. A fund's holdings and returns may deviate from those of its index due to various factors. This deviation may be greater when markets are volatile or subject to unusual conditions.

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