

Model portfolios Investor fact sheet

John Hancock Global Dynamic Equity Model Portfolio

Strategy

Global core equity

Allocation to a wide range of stocks across market capitalizations, geographies, and sectors

Time-tested multifactor approach

Emphasizing factors (smaller cap, lower relative price, and higher profitability) that academic research has linked to higher expected returns

U.S. sector rotation

U.S. large-cap exposure implemented through dynamic sector tilts

Integrating asset allocation and manager research

For more than 30 years, our multi-asset solutions team has combined asset allocation with manager research and oversight to seek better outcomes for investors.



Multi-asset solutions team

- Portfolio managers/strategists
- Model portfolio construction and delivery

59 investment professionals

- 33 CFA charterholders
- 2 Ph.D.s

Manager research team

Investment manager due diligence and oversight

28 manager research professionals

- 31 professional designations
- 19 advanced degrees

Managed by

Manulife Investment Management

Established asset manager with global resources and expertise extending across equity, fixed-income, and alternative investments as well as asset allocation strategies



Nathan W. Thooft, CFA
On the portfolio since 2019
Investing since 2000



Bruce G. Picard, CFA
On the portfolio since 2019
Investing since 2000



Michael J. Comer, CFA
On the portfolio since 2019
Investing since 2005



Matthew N. Murphy, CFA
On the portfolio since 2019
Investing since 2002

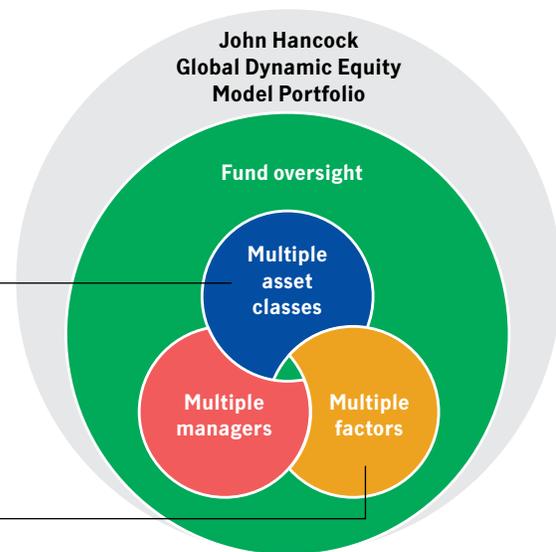
A leader in asset allocation paired with a pioneer in multifactor investing

Sector rotation implemented with John Hancock Multifactor ETFs that track custom indexes designed by Dimensional Fund Advisors

- Oversight
- Multiple asset classes
- Multiple managers
- Multiple factors

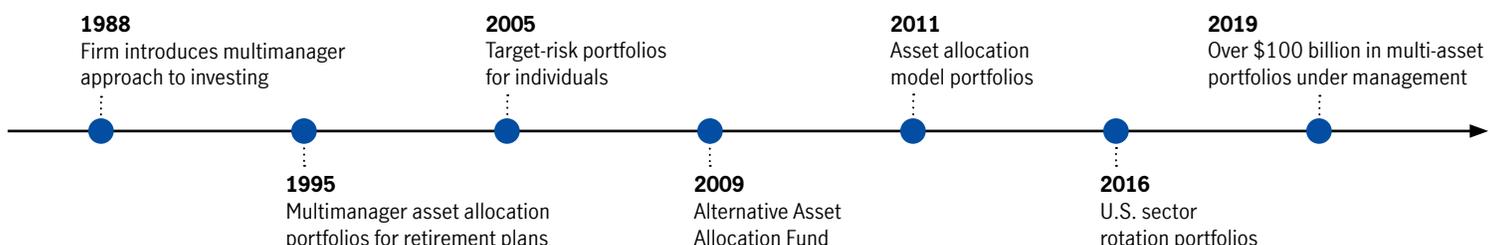
- U.S. large-cap sector rotation
- U.S. mid- and small-cap equity
- Non-U.S. equity

- Smaller capitalizations
- Lower relative prices
- Higher profitability



A leader in asset allocation

Multimanager approach since 1988 and model portfolios since 2011



Monthly commentary

Highlights

- Equities produced positive returns in one of the strongest months for equity markets since 2020.
- The portfolio generated positive returns and led its benchmark.
- Asset allocation decisions and manager selection helped relative performance.

Market review and outlook

- After a long stretch of poor performance in August and September, the global equity markets staged a strong rebound in October. Investors appeared to be encouraged that the U.S. Federal Reserve and other major central banks, while continuing to raise interest rates, were moving closer to the point where they could pivot to a less aggressive stance.
- Better-than-expected corporate earnings dampened concerns that rising rates and slowing growth would have a significant impact on profits in 2022. Notably, value stocks led the market's advance as investors displayed a clear preference for companies with higher near-term cash flows (a positive when rates are rising).
- On a regional basis, Europe, the United States, and Canada all outperformed. On the other hand, the emerging markets posted a loss due largely to continued weakness in China. President Xi Jinping used the National Congress of the Chinese Communist Party to tighten his grip on power, raising fears that the nation would continue to pursue a policy direction unfriendly to business and the financial markets.

Contributors and detractors

- At the regional level, the portfolio was underweight in international developed equity, emerging markets, and subsequently overweight in U.S. large-cap equities. The overweight in U.S. large caps boosted performance as it was the top-performing region, modestly ahead of international developed and well ahead of emerging markets during the month.

- At the sector level, the portfolio was overweight in healthcare, financials, consumer staples, and energy. All four of these sectors were strong outperformers during the risk-on month, led by energy shares. Conversely, the portfolio was overweight in gold, which generated negative absolute returns during the month and hurt relative performance.
- ETF exposures helped returns during the month, driven by their tilts in favor of small and value-oriented companies.

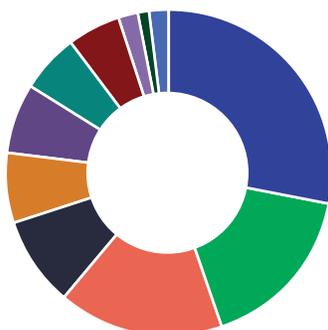
Portfolio changes

- We made multiple changes in the portfolio, aimed at achieving two goals. The first was to adjust the positioning based on the availability of underlying holdings and the second was to continue to position the portfolio for our expectations of markets moving forward.
- As the John Hancock Multifactor sector ETFs are no longer available for investment in this portfolio, we eliminated those positions; we added John Hancock Multifactor Large Cap ETF (JHML). High conviction sector exposure will now be implemented using Select Sector SPDR ETFs.
- As part of the rebalance, active overweights were added to healthcare, consumer staples, financials, energy, gold, and small- and mid-cap U.S. equities. The positions are a mix of defensive holdings and cyclical holdings that should benefit from the current business cycle and inflation outlook.

Distinguishing features

- Core equity allocation to a variety of global markets, capitalizations, and sectors within the United States
- Efficient ETF structure minimizes underlying turnover, trading costs, tax liabilities, and cash drag

Strategy allocation (%)



Underlying fund	Ticker	Manager	Current month	Prior month	Change from last month
John Hancock Multifactor Large Cap ETF	JHML	Dimensional Fund Advisors	28.24	—	28.24
John Hancock Multifactor Developed Int'l ETF	JHMD	Dimensional Fund Advisors	16.68	16.80	-0.12
John Hancock Multifactor Mid Cap ETF	JHMM	Dimensional Fund Advisors	16.43	10.56	5.86
John Hancock Multifactor Small Cap ETF	JHSC	Dimensional Fund Advisors	8.66	1.49	7.16
Health Care Select Sector SPDR® ETF	XLV	State Street Global Advisors	7.02	—	7.02
Consumer Staples Select Sector SPDR ETF	XLP	State Street Global Advisors	6.97	—	6.97
John Hancock Multifactor Emerging Markets ETF	JHEM	Dimensional Fund Advisors	5.94	6.63	-0.68
Financial Select Sector SPDR ETF	XLF	State Street Global Advisors	5.17	—	5.17
Energy Select Sector SPDR ETF	XLE	State Street Global Advisors	2.08	—	2.08
SPDR Gold MiniShares Trust	GLDM	State Street Global Advisors	0.96	—	0.96
Cash			1.85	2.29	-0.44
Total underlying expenses¹: 0.30					

See the conflicts disclosure on the last page for further information. Due to rounding, numbers presented may not add up precisely.

¹ Morningstar, as of the date of the material. Weighted average annual net expense ratio is provided based on aggregation of the underlying fund fees. Share classes used for calculation may not be available to all investors, and expense ratios charged may vary.

Average annual total returns	QTD	YTD	1 year	3 year	5 year	10 year	Inception 11/1/19
John Hancock Global Dynamic Equity Model Portfolio, gross of fees	7.18	-19.61	-18.51	5.18	—	—	5.18
John Hancock Global Dynamic Equity Model Portfolio, net of fees	6.91	-21.60	-20.92	2.07	—	—	2.07
Blended benchmark ²	6.48	-19.81	-18.65	6.15	—	—	6.15

Source: Manulife Investment Management (a Manulife company).

² A custom blended benchmark reflects the portfolio's asset allocation under normal conditions. This custom blended benchmark comprises 68% Russell 3000 Total Return Index, 30% MSCI All Country World Index ex USA Index, and 2% FTSE 3-Month T-Bill Index. It is not possible to invest directly in an index.

John Hancock Investment Management LLC and Manulife Investment Management (US) LLC are affiliated SEC registered investment advisers using the brand name John Hancock Investment Management.

Important performance information

Performance figures shown are of the Multimanager Model Portfolio Composite, managed by Manulife Investment Management, gross of fees, and represents a single, non-fee-paying affiliated seed capital account, which is representative of the investment strategy. Net performance results reflect the deduction of, from the respective gross-of-fee returns, the highest industry-applied bundled fees (3.00% annually). Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Performance may not be reflective of a full market cycle. The short-term results of a relatively new model portfolio are not necessarily indicative of its long-term prospects. Manulife Investment Management claims compliance with the Global Investment Performance Standards (GIPS®). To receive a complete list and description of Manulife Investment Management's composites and/or a report that adheres to the GIPS, contact our institutional sales team at 888-332-7132.

Performance does not reflect the platform or program sponsor, trading costs, administrative management fees, or other expenses that would be incurred by a participant portfolio and would reduce returns. Performance does reflect the deduction of investment expenses for the underlying funds. The results do not represent actual trading, which is conducted by the platform or program sponsor on behalf of the client. It should not be assumed that investors would have obtained the performance shown had they invested in the manner shown and does not represent performance that any third-party investor actually attained. Actual performance may differ substantially from the performance presented. Returns for periods shorter than one year are cumulative. The performance presented is based on an assumption that the trades were executed at the same time as the model. The performance of your account may materially differ from the performance shown due to assumptions that include, but are not limited to, trade execution timing; your investment advisor, not John Hancock Investment Management, determines when to implement trade in the account; differences in market conditions; client-imposed investment restrictions; the timing of client investments and withdrawals; fees payable; foreign exchange rates; and account size.

Performance shown does not reflect the performance of model-based program accounts managed by your investment advisor using model portfolios. Your investment advisor may or may not add model portfolios in your account. John Hancock Investment Management is not responsible for determining the suitability or appropriateness of a strategy based on the model portfolios. John Hancock Investment Management does not have investment discretion of your account and does not place trade orders for your account. All information and data, including allocations, are subject to change.

The portfolio's performance depends on the advisor's skill in determining asset class allocations, the mix of underlying funds, and the performance of those underlying funds. The portfolio is subject to the same risks as the underlying funds and exchange-traded funds in which it invests: Stocks and bonds can decline due to adverse issuer, market, regulatory, or economic developments; foreign investing, especially in emerging markets, has additional risks, such as currency and market volatility and political and social instability; the securities of small companies are subject to higher volatility than those of larger, more established companies; and high-yield bonds are subject to additional risks, such as increased risk of default. Liquidity—the extent to which a security may be sold or a derivative position closed without negatively affecting its market value, if at all—may be impaired by reduced trading volume, heightened volatility, rising interest rates, and other market conditions. Owning an ETF generally reflects the risks of owning the underlying securities it is designed to track, which may cause lack of liquidity, more volatility, and increased management fees. Hedging and other strategic transactions may increase volatility of a portfolio and could result in a significant loss. The principal value of each portfolio is not guaranteed, and you could lose money at any time.

This material is for informational purposes only and is not intended to be, nor shall it be interpreted or construed as, a recommendation or providing advice, impartial or otherwise, regarding any security, mutual fund, ETF, sector, or index. Investors should consult with their financial professional before making any investment decisions. Manulife Investment Management (US) LLC performs asset allocation for the models and other investment-related services. John Hancock Investment Management nor our affiliates offer tax advice. Investors should consult with their tax advisor regarding their specific situation. Certain of the assumptions have been made for modeling purposes and are unlikely to be realized. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. Model returns have many inherent limitations and may not reflect the impact that material economic and market factors may have had on the decision-making process if client funds were actually managed in the manner shown. Changes in the assumptions may have a material impact on the model returns presented; other periods selected may have different results, including losses. There can be no assurance that an account managed in accordance with the model will achieve profits or avoid incurring substantial losses. This portfolio is only available through investment professionals. Not all strategies may be available on all platforms, and fees and terms may vary. Past performance does not guarantee future results.

Conflicts disclosure

The information in the charts shown reflects the current portfolio allocations across the underlying model portfolios. Allocations are as of the date indicated, are subject to change, and should not be relied on as current thereafter.

Certain model portfolios may include ETFs and mutual funds that are managed by an unaffiliated investment manager (unaffiliated funds) or an affiliate (affiliated funds). Recommendation of the model portfolios that use affiliated funds raises conflicts of interest. To the extent that the advisor does use affiliated funds as the components of the model portfolios, this will generate advisory and other fees for John Hancock Investment Management (a Manulife company) and, in certain cases, our affiliates, when intermediary accounts and other persons use the model portfolios, and the management fees of affiliated funds may be higher than fees charged by other funds. Clients should review any information provided by the managed account program sponsor for further details regarding the extent to which model portfolios provided may include affiliated funds. In addition, affiliates may engage the investment managers that are recommended or included in the model portfolios as subadvisors to the John Hancock funds or have other business relationships with such investment managers. Some sponsors and intermediaries have other business relationships with John Hancock Investment Management or our affiliates.

Manulife Investment Management (US) LLC, 197 Clarendon Street, Boston, MA 02116

Manulife, Manulife Investment Management, Stylized M Design, and Manulife Investment Management & Stylized M Design are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license.