

**John Hancock Variable Insurance Trust (the Trust)
Supplement dated December 12, 2019 to the current Prospectus (the prospectus), as may be supplemented**

Global Trust (the fund)

The following information supplements and supersedes any information to the contrary relating to the fund contained in the current prospectus.

At an in-person meeting held on December 10-12, 2019, the Trust's Board of Trustees (the Board) approved changing the subadvisor for the fund from Templeton Global Advisors Limited to Manulife Investment Management (US) LLC (Manulife IM (US)) on or about April 29, 2020 (the Effective Date) subject to approval by shareholders of Global Trust. Manulife IM (US) is an affiliate of the advisor to the fund and is an indirect wholly owned subsidiary of Manulife Financial Corporation. In addition, the Board approved a reduction in the fund's management fee schedule, changes to the fund's principal investment policies, and additional changes described below each effective on or about the Effective Date.

A meeting of the shareholders of the fund has been scheduled for April 14, 2020, to seek approval of the subadvisor change. Subject to regulatory and shareholder approval, the subadvisor change is scheduled to occur on or about the Effective Date.

In connection with the changes described above, and contingent upon shareholder approval of the subadvisor change, the prospectus is hereby amended as of the Effective Date as follows:

1. All references to Templeton Global Advisors Limited are deleted and replaced with Manulife IM (US) as the subadvisor with respect to the fund.
2. The "Principal investment strategies" of the "Fund summary" section of the prospectus are revised and restated in their entirety as follows.

The fund seeks to generate capital appreciation by investing at least 80% of net assets (plus borrowings for investment purposes) in a diversified portfolio of equity securities. This policy is subject to change only upon 60 days' notice to shareholders. Under normal market conditions, at least 40% of the value of the fund's net assets will be invested in issuers domiciled outside of the United States, including in emerging markets, which includes securities for which the relevant reference entity is domiciled outside the United States, such as American Depositary Receipts (ADRs), that trade on U.S. exchanges. There are no limits on the market capitalization ranges of the companies in which the fund may invest. The fund may invest in the securities of large, medium, or small companies.

In managing the fund, the manager seeks to identify undervalued companies that exhibit attractive valuations, solid business franchises, sustainable margins/cash flow, disciplined capital allocation, strong management teams, and strong balance sheets.

The manager employs an unconstrained, bottom-up stock selection process based on disciplined fundamental research with the aim to create a diversified portfolio of quality global stocks of any size that not only demonstrate compelling value but also generate sustainable cash flows. Equity securities include common and preferred stocks and their equivalents, including depositary receipts, warrants, rights, and securities convertible into common or preferred stocks.

The decision-making process involves candidate companies being screened for valuation, quality, and dividends, together with a detailed examination of the challenges and opportunities that exist for that business. The manager will assess the valuation opportunity for that company by establishing base-case, upside, and downside price targets. The manager will take into consideration the diversification benefits and the liquidity of the security before making the final investment decision.

The fund may invest in cash, money market instruments, repurchase agreements, or other short-term instruments for the purposes of meeting redemption requests or making other anticipated cash payments.

3. The "Principal risks" of the "Fund summary" section of the prospectus are revised to remove "Credit and counterparty risk," "Financial services sector risk," "Fixed-income securities risk," "Hedging, derivatives, and

other strategic transactions risk,” “Hybrid instrument risk,” “Liquidity risk,” and “Sector risk.” The “Principal risks” are further revised to add the following risks:

Emerging-market risk. The risks of investing in foreign securities are magnified in emerging markets. Emerging-market countries may experience higher inflation, interest rates, and unemployment and greater social, economic, and political uncertainties than more developed countries.

Warrants risk. The prices of warrants may not precisely reflect the prices of their underlying securities. Warrant holders do not receive dividends or have voting or credit rights. A warrant ceases to have value if not exercised prior to its expiration date.

4. The following disclosure is added following the first paragraph under the heading “Past performance” in the “Fund summary” section:

Prior to April 29, 2020, the fund was managed by a different subadvisor pursuant to different strategies, and thus, the performance presented prior to this date should not be attributed to the current subadvisor, Manulife Investment Management (US) LLC (Manulife IM (US)). The fund’s performance shown below might have differed materially had Manulife IM (US) managed the fund prior to April 29, 2020.

5. The information regarding the subadvisor under the heading “Investment management” in the “Fund summary” section is revised and restated in its entirety as follows:

Subadvisor Manulife Investment Management (US) LLC (Manulife IM (US))

6. In the “Fund summary” section, the information under the heading “Portfolio management” is revised and restated in its entirety as follows:

Paul Boyne

Team Head, Portfolio Manager
Managed fund since 2020

Stephen Hermsdorf

Managing Director, Portfolio Manager
Managed fund since 2020

7. The information in the “Subadvisors and Portfolio Managers” section of the prospectus under the heading “Manulife Investment Management (US) LLC” is amended to include the following.

Fund(s)
Global Trust

Portfolio Manager(s)

Paul Boyne
Stephen Hermsdorf

- *Paul Boyne.* Team Head, Portfolio Manager. Lead Manager of the fund since 2020. Joined subadvisor in 2013. Senior Fund Manager, Invesco Advisers, Inc. (2008–2012). Began business career in 1993.
- *Stephen Hermsdorf.* Managing Director, Portfolio Manager. Manager of the fund since 2020. Joined subadvisor in 2015. Portfolio Manager, Hermes Global Equities (2009–2014). Began business career in 1993.

8. In addition, the advisory fee schedule for the fund, as shown in “Appendix A Schedule of Management Fees,” is revised and restated as follows:

0.800% — first \$1 billion; and
0.790% — excess over \$1 billion.*

(Aggregate Net Assets include the net assets of the fund, the Global Equity Trust (formerly Mutual Shares Trust) and the Global Equity Fund, a series of John Hancock Funds II).

* The fee schedule above will become effective on or about April 29, 2020.

International Value Trust (the fund)

The following information supplements and supersedes any information to the contrary relating to the fund contained in the current prospectus.

At an in-person meeting held on December 10-12, 2019, the Trust's Board of Trustees (the Board) approved the hiring and appointment of Boston Partners Global Investors, Inc. (Boston Partners), to replace Templeton Investment Counsel, LLC as subadvisor to the fund, which is expected to be effective on or about February 12, 2020 (the Effective Date). In addition, the Board approved a change in the fund's name, reduction in the fund's management fee schedule, and additional changes described below, each effective as of the Effective Date.

In connection with the changes described above, the prospectus is hereby amended as of the Effective Date as follows:

1. All references to Templeton Investment Counsel, LLC are deleted and replaced with Boston Partners as the subadvisor with respect to the fund.
2. The fund's name is changed to Disciplined Value International Trust, and all references to International Value Trust are changed to reflect the fund's new name.
3. The "Principal investment strategies" of the "Fund summary" section of the prospectus are revised and restated in their entirety as follows.

The Board of Trustees can change the fund's investment objective and strategies without shareholder approval.

The fund pursues its investment objective by investing, under normal circumstances, at least 80% of its net assets (plus any borrowings for investment purposes) in a portfolio of equity and equity-related securities issued by non-U.S. companies of any capitalization size. The fund may invest in all types of equity and equity-related securities, including, without limitation, exchange-traded and over-the-counter common and preferred stocks, warrants, options, rights, convertible securities, sponsored and unsponsored depositary receipts and shares, trust certificates, participatory notes, limited partnership interests, shares of other investment companies (including exchange-traded funds (ETFs)), real estate investment trusts (REITs), and equity participations. An equity participation is a type of loan that gives the lender a portion of equity ownership in a property, in addition to principal and interest payments. A convertible security is a bond, debenture, note, preferred stock, or other security that may be converted into or exchanged for a prescribed amount of common stock of the same or a different issuer within a particular period of time at a specified price or formula.

The fund defines non-U.S. companies as companies: (i) that are organized under the laws of a foreign country; (ii) whose principal trading market is in a foreign country; or (iii) that have a majority of their assets, or that derive a significant portion of their revenue or profits, from businesses, investments, or sales outside of the United States. The fund primarily will be invested in issuers located in countries with developed securities markets, but may also invest in issuers located in emerging markets.

The fund may invest in securities denominated in the currencies of a variety of developed, emerging and frontier market countries.

The fund generally invests in the equity securities of issuers believed by the manager to be undervalued in the marketplace, focusing on issuers that combine attractive valuations with catalysts for change. The manager applies a bottom-up stock selection process (i.e., one that focuses primarily on issuer specific factors) in managing the fund, using a combination of fundamental and quantitative analysis. In selecting investments for the fund, the manager considers various factors, such as price-to-book value, price-to-sales and earnings ratios, dividend yields, strength of management, and cash flow to identify securities that are trading at a price that appears to be lower than the issuer's inherent value.

The fund may (but is not required to) invest in derivatives, including put and call options, futures, forward contracts, and swaps, in lieu of investing directly in a security, currency or instrument, for hedging and nonhedging purposes, including reducing risk, obtaining efficient market exposure, and/or enhancing investment returns.

The fund may invest up to 15% of its net assets in illiquid securities, including securities that are illiquid by virtue of the absence of a readily available market or legal or contractual restrictions on resale.

The fund may participate as a purchaser in Initial Public Offerings (IPOs). An IPO is a company's first offering of stock to the public. The fund may also seek to increase its income by lending portfolio securities.

The manager will sell a stock when it no longer meets one or more investment criteria, either through obtaining target value or due to an adverse change in fundamentals or business momentum. Each holding has a target valuation established at purchase, which the manager constantly monitors and adjusts as appropriate.

The fund may invest in cash or money market instruments for the purpose of meeting redemption requests or making other anticipated cash payments.

4. The “Principal risks” of the “Fund summary” section of the prospectus are revised to remove “Financial services sector risk,” “Fixed-income securities risk,” “Hybrid instrument risk,” and “Sector risk.” The “Principal risks” are further revised to add the following risks:

Exchange-traded funds risk. An ETF generally reflects the risks of the underlying securities of the index it is designed to track. However, at times, an ETF’s portfolio composition and performance may not match that of such index. A fund bears ETF fees and expenses indirectly.

Illiquid and restricted securities risk. Illiquid and restricted securities may be difficult to value and may involve greater risks than liquid securities. Illiquidity may have an adverse impact on a particular security’s market price and the fund’s ability to sell the security.

Initial public offerings risk. IPO share prices are frequently volatile and may significantly impact fund performance.

Real estate investment trust risk. REITs, pooled investment vehicles that typically invest in real estate directly or in loans collateralized by real estate, carry risks associated with owning real estate, including the potential for a decline in value due to economic or market conditions.

Warrants risk. The prices of warrants may not precisely reflect the prices of their underlying securities. Warrant holders do not receive dividends or have voting or credit rights. A warrant ceases to have value if not exercised prior to its expiration date.

5. The following disclosure is added following the first paragraph under the heading “Past performance” in the “Fund summary” section:

Prior to February 12, 2020, the fund was managed by a different subadvisor pursuant to different strategies, and thus, the performance presented prior to this date should not be attributed to the current subadvisor, Boston Partners Global Investors, Inc. (Boston Partners). The fund’s performance shown below might have differed materially had Boston Partners managed the fund prior to February 12, 2020.

6. The information regarding the subadvisor under the heading “Investment management” in the “Fund summary” section is revised and restated in its entirety as follows:

Subadvisor Boston Partners Global Investors, Inc. (Boston Partners)

7. In the “Fund summary” section, the information under the heading “Portfolio management” is revised and restated in its entirety as follows:

Joseph F. Feeney, Jr., CFA	Christopher K. Hart, CFA	Joshua M. Jones, CFA	Joshua White, CFA
Chief Executive Officer and Chief Investment Officer —	Portfolio Manager Managed fund since 2020	Portfolio Manager Managed fund since 2020	Portfolio Manager Managed fund since 2020
<i>Equities</i>			
Managed fund since 2020			

8. The information in the “Subadvisors and Portfolio Managers” section of the prospectus is amended to include the following.

Boston Partners Global Investors, Inc. (Boston Partners)

Boston Partners is an indirect, wholly owned subsidiary of ORIX Corporation of Japan. Boston Partners Global Investors, Inc. is located at One Beacon Street, 30th Floor, Boston, MA 02108.

The following are brief biographical profiles of the leaders of the fund's investment management team, in alphabetical order. These managers are jointly and primarily responsible for the day-to-day management of the fund's portfolio. These managers are employed by Boston Partners. For more details about these individuals, including information about their compensation, other accounts they manage, and any investments they may have in the fund, see the SAI.

Fund(s)
Disciplined Value International Trust
(formerly International Value Trust)

Portfolio Manager(s)
Joseph F. Feeney, Jr., CFA
Christopher K. Hart, CFA
Joshua M. Jones, CFA
Joshua White, CFA

- *Joseph F. Feeney, Jr., CFA*. Chief Executive Officer and Chief Investment Officer—Equities. Managed the fund since 2020. Joined subadvisor in 1995.
- *Christopher K. Hart, CFA*. Portfolio Manager. Managed the fund since 2020. Joined subadvisor in 2002.
- *Joshua M. Jones, CFA*. Portfolio Manager. Managed the fund since 2020. Joined subadvisor in 2006.
- *Joshua White, CFA*. Portfolio Manager. Managed the fund since 2020. Joined subadvisor in 2006.

9. In addition, the advisory fee schedule for the fund, as shown in "Appendix A Schedule of Management Fees," is revised and restated as follows:

If aggregate net assets are less than \$300 million, the following fee schedule shall apply:

0.825% — first \$300 million

If aggregate net assets equal or exceed \$300 million but are less than \$2.5 billion, the following fee schedule shall apply:

0.775% — all assets

If aggregate net assets exceed \$2.5 billion, the following fee schedule shall apply:

0.775% — first \$2.5 billion;
0.750% — next \$500 million; and
0.725% — excess over \$3 billion.

(Aggregate Net Assets include the net assets of the fund, the John Hancock International Value Fund (a series of John Hancock Funds II), the John Hancock Disciplined Value International Fund (a series of John Hancock Funds II), and the UCITS Global Disciplined Value (Ex-U.S.) Fund.)

** The fee schedule above will become effective on or about February 12, 2020.*

Mutual Shares Trust (the fund)

The following information supplements and supersedes any information to the contrary relating to the fund contained in the current prospectus.

At an in-person meeting held on December 10-12, 2019, the Trust's Board of Trustees (the Board) approved changing the subadvisor for the fund from Franklin Mutual Advisers, LLC to Manulife Investment Management (US) LLC (Manulife IM (US)) effective on or about April 29, 2020 (the Effective Date) subject to approval by shareholders of Mutual Shares Trust. Manulife IM (US) is an affiliate of the advisor to the fund and is an indirect wholly owned subsidiary of Manulife Financial Corporation. In addition, the Board approved a reduction in the fund's management fee schedule, a change in the fund's name, investment objective, principal investment policies, and additional changes described below, each effective as of the Effective Date.

A meeting of the shareholders of the fund has been scheduled for April 14, 2020, to seek approval of the subadvisor change. Subject to regulatory and shareholder approval, the subadvisor change is scheduled to occur on or about the Effective Date.

In connection with the changes described above, and contingent upon shareholder approval of the subadvisor change, the prospectus is hereby amended as of the Effective Date as follows:

1. All references to Franklin Mutual Advisers, LLC are deleted and replaced with Manulife IM (US) as the subadvisor with respect to the fund.
2. The fund's name is changed to Global Equity Trust, and all references to Mutual Shares Trust are changed to reflect the fund's new name.
3. The investment objective of the fund is amended and restated in its entirety as follows:
To seek long-term capital appreciation.
4. The "Principal investment strategies" of the "Fund summary" section of the prospectus are revised and restated in their entirety as follows.

The fund seeks to generate capital appreciation by investing at least 80% of net assets (plus borrowings for investment purposes) in a diversified portfolio of equity securities. This policy is subject to change only upon 60 days' notice to shareholders. Under normal market conditions, at least 40% of the value of the fund's net assets will be invested in issuers domiciled outside of the United States, including in emerging markets, which includes securities for which the relevant reference entity is domiciled outside the United States, such as American Depositary Receipts (ADRs), that trade on U.S. exchanges. There are no limits on the market capitalization ranges of the companies in which the fund may invest. The fund may invest in the securities of large, medium, or small companies.

In managing the fund, the manager seeks to identify undervalued companies that exhibit attractive valuations, solid business franchises, sustainable margins/cash flow, disciplined capital allocation, strong management teams, and strong balance sheets.

The manager employs an unconstrained, bottom-up stock selection process based on disciplined fundamental research with the aim to create a diversified portfolio of quality global stocks of any size that not only demonstrate compelling value but also generate sustainable cash flows. Equity securities include common and preferred stocks and their equivalents, including depositary receipts, warrants, rights, and securities convertible into common or preferred stocks.

The decision-making process involves candidate companies being screened for valuation, quality, and dividends, together with a detailed examination of the challenges and opportunities that exist for that business. The manager will assess the valuation opportunity for that company by establishing base-case, upside, and downside price targets. The manager will take into consideration the diversification benefits and the liquidity of the security before making the final investment decision.

The fund may invest in cash, money market instruments, repurchase agreements, or other short-term instruments for the purposes of meeting redemption requests or making other anticipated cash payments.

5. The "Principal risks" of the "Fund summary" section of the prospectus are revised to remove "Arbitrage securities and distressed companies risk," "Credit and counterparty risk," "Distressed investments risk," "Financial services sector risk," "Fixed-income securities risk," "Hedging, derivatives, and other strategic transactions risk," "Liquidity risk," "Loan participations risk," "Lower-rated and high-yield fixed-income securities risk," and "Short sales risk." The "Principal risks" are further revised to add the following risks:

Emerging-market risk. The risks of investing in foreign securities are magnified in emerging markets. Emerging-market countries may experience higher inflation, interest rates, and unemployment and greater social, economic, and political uncertainties than more developed countries.

Warrants risk. The prices of warrants may not precisely reflect the prices of their underlying securities. Warrant holders do not receive dividends or have voting or credit rights. A warrant ceases to have value if not exercised prior to its expiration date.

6. The following disclosure is added following the first paragraph under the heading "Past performance" in the "Fund summary" section:

Prior to April 29, 2020, the fund was managed by a different subadvisor pursuant to different strategies, and thus, the performance presented prior to this date should not be attributed to the current subadvisor, Manulife Investment Management (US) LLC (Manulife IM (US)). The fund's performance shown below might have differed materially had Manulife IM (US) managed the fund prior to April 29, 2020.

7. In the "Average annual total returns" table under the heading "Past performance" in the "Fund summary" section, the returns of the MSCI World Index are added as stated below.

Average Annual Total Returns for Period Ended 12/31/2018

Average annual total returns (%)	1 Year	5 Year	10 Year	Date of Inception
Series I	-8.96	3.30	9.24	01/29/08
MSCI World Index* (reflects no deduction for fees, expenses, or taxes)	-8.71	4.56	9.67	
S&P 500 Index (reflects no deduction for fees, expenses, or taxes)	-4.38	8.49	13.12	

* Prior to April 29, 2020, the fund's primary benchmark was the S&P 500 Index. Effective April 29, 2020, the fund's primary benchmark index is the MSCI World Index. The MSCI World Index is better aligned with the fund's investment strategy.

8. The information regarding the subadvisor under the heading "Investment management" in the "Fund summary" section is revised and restated in its entirety as follows:

Subadvisor Manulife Investment Management (US) LLC (Manulife IM (US))

9. In the "Fund summary" section, the information under the heading "Portfolio management" is revised and restated in its entirety as follows:

Paul Boyne

Team Head, Portfolio Manager
Managed fund since 2020

Stephen Hermsdorf

Managing Director, Portfolio Manager
Managed fund since 2020

10. The information in the "Subadvisors and Portfolio Managers" section of the prospectus under the heading "Manulife Investment Management (US) LLC" is amended to include the following.

Fund(s)

**Global Equity Trust
(formerly Mutual Shares Trust)**

Portfolio Manager(s)

Paul Boyne
Stephen Hermsdorf

- *Paul Boyne.* Team Head, Portfolio Manager. Lead Manager of the fund since 2020. Joined subadvisor in 2013. Senior Fund Manager, Invesco Advisers, Inc. (2008–2012). Began business career in 1993.
- *Stephen Hermsdorf.* Managing Director, Portfolio Manager. Manager of the fund since 2020. Joined subadvisor in 2015. Portfolio Manager, Hermes Global Equities (2009–2014). Began business career in 1993.

11. In addition, the advisory fee schedule for the fund, as shown in "Appendix A Schedule of Management Fees," is revised and restated as follows:

0.800% — first \$1 billion; and
0.790% — excess over \$1 billion.*

(Aggregate Net Assets include the net assets of the fund, the Global Trust, and the Global Equity Fund, a series of John Hancock Funds II).

* The fee schedule above will become effective on or about April 29, 2020.

You should read this supplement in conjunction with the prospectus and retain it for future reference.