VOLATILITY

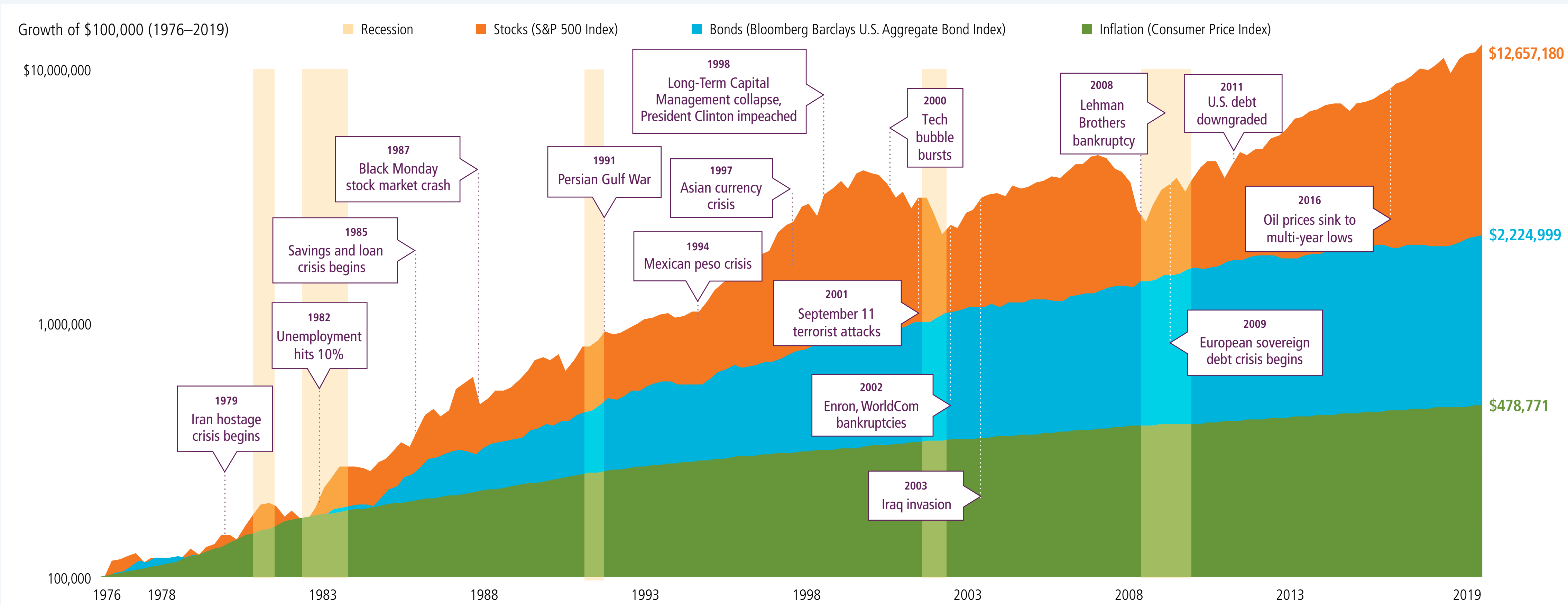
Time-tested strategies for today's investor

John Hancock Investment Management

Stocks have generated wealth, despite volatility

Stocks have outpaced bonds and inflation over time despite wars, recessions, inflation spikes, and other market-rattling events. And while stocks have always recovered from crises, investors have historically made the most of market setbacks by sticking to a regular investment schedule, ensuring that shares are being accumulated when prices are cheaper.

Stocks are one of the best ways to build wealth



Source: John Hancock Investment Management, 2019.

Markets have recovered quickly from most crises

Market events and recovery from the bottom (S&P 500 Index)

Event	Reaction date	Cumulative returns: Loss during the event (%)	Cumulative returns: 1 month later (%)	Annualized returns: 1 year later (%)	Annualized returns: 5 years later (%)	Annualized returns: 10 years later (%)
Fall of France	5/9/40–6/22/40	-16.9	0.7	5.0	15.7	13.2
Outbreak of Korean War	6/23/50–7/13/50	-12.2	10.2	42.2	27.7	18.5
Cuban missile crisis	8/23/62–10/23/62	-9.9	15.5	41.1	15.8	11.1
Nixon resigns	8/9/74–8/29/74	-13.4	-6.8	30.2	14.6	14.6
Interest-rate hikes	2/4/94–2/24/94	-3.2	0.3	8.2	24.6	11.4
September 11 attacks	9/10/01–9/21/01	-11.6	11.3	-11.1	8.3	3.6
Collapse of Lehman Brothers	9/05/08–11/20/08	-39.1	18.3	48.8	21.7	15.8

Source: John Hancock Investment Management, 2019. This is a hypothetical example and does not reflect the performance of any John Hancock fund.

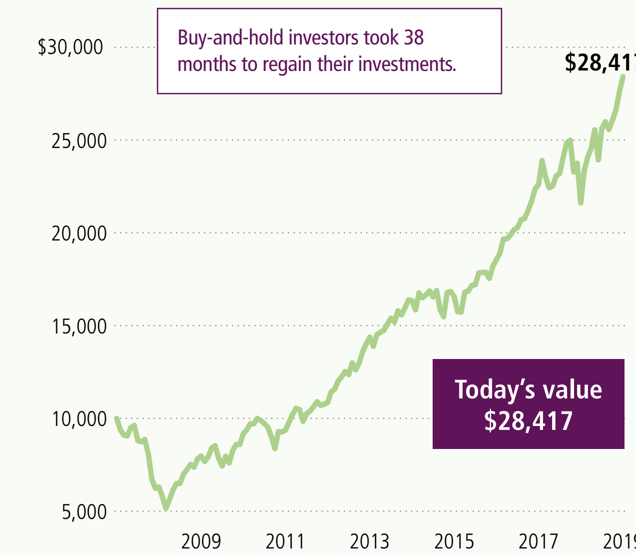
The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. The Bloomberg Barclays U.S. Aggregate Bond Index tracks the performance of U.S. investment-grade bonds in government, asset-backed, and corporate debt markets. The Consumer Price Index (CPI) is a comprehensive measure used for estimation of price changes in a basket of goods and services representative of consumption expenditure in an economy. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Strategy: invest regularly

Steadily investing through market setbacks takes advantage of temporarily low prices

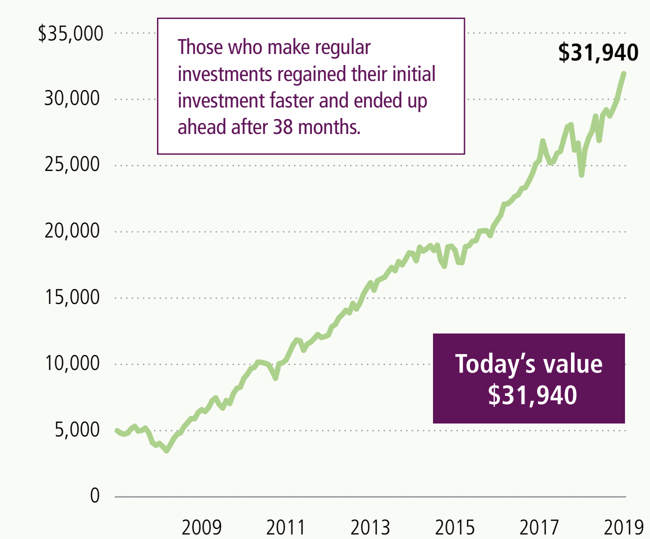
Buy and hold

$10,000 invested in stocks at the start of the 2007/2008 financial crisis (January 2008–December 2019)



Steady investing

$5,000 invested in stocks at the start of the 2007/2008 financial crisis, plus $100 invested monthly, for a total of $10,000 (January 2008–December 2019)

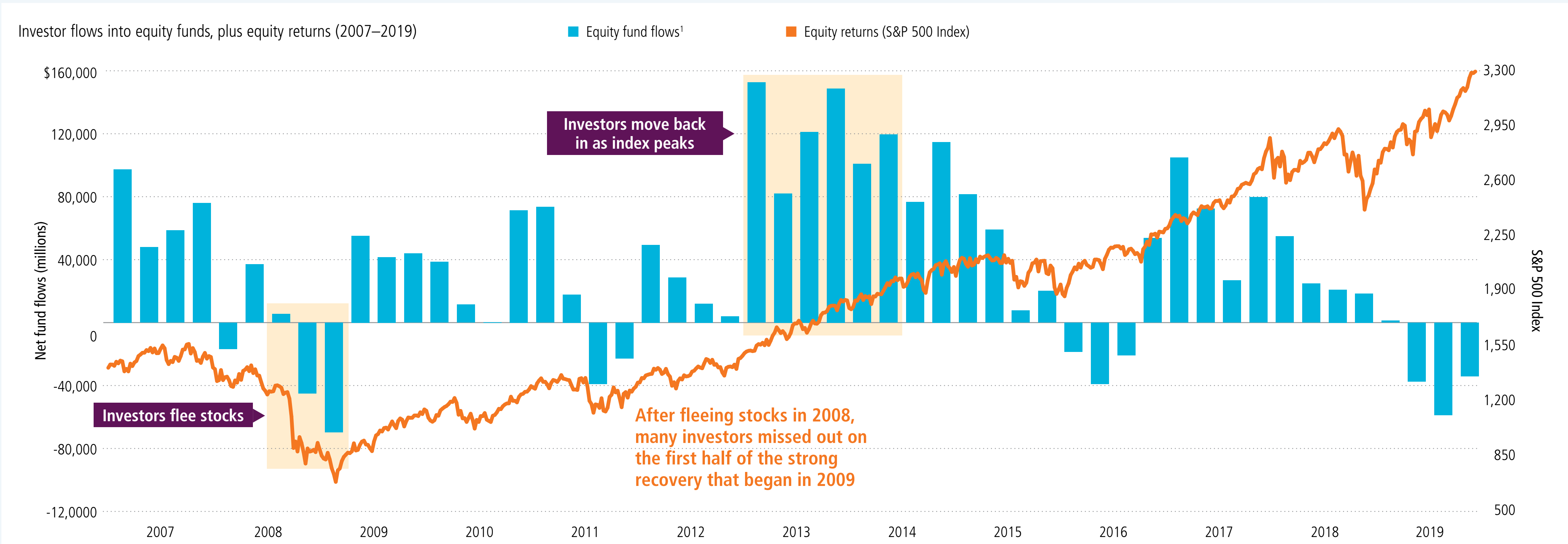


Source: John Hancock Investment Management, 12/31/19. Market performance is represented by the S&P 500 Index. This is a hypothetical example and does not reflect the performance of any John Hancock fund.

Volatility can lead to emotional decision-making

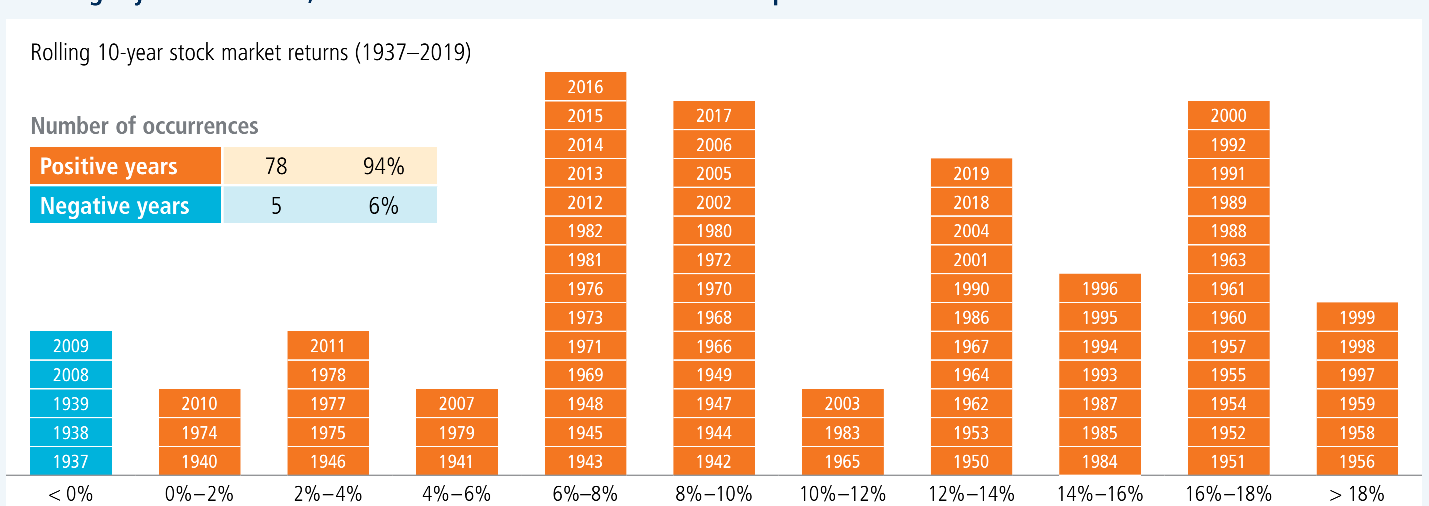
It's human nature to feel emotional about your investments, but acting on those emotions is typically counterproductive, at times resulting in shortened fund holding periods and sharp underperformance versus the market. A better approach may be to stay invested and not miss out on the market's best days.

Investors abandoned stocks when prices were low and didn't reenter the market until too late in the cycle



Source: Morningstar, Ibbotson as of 12/31/19. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.
1 Comprises U.S. equity, sector equity, international equity, and hybrid mutual funds and ETFs.

The longer you hold stocks, the better the odds that returns will be positive



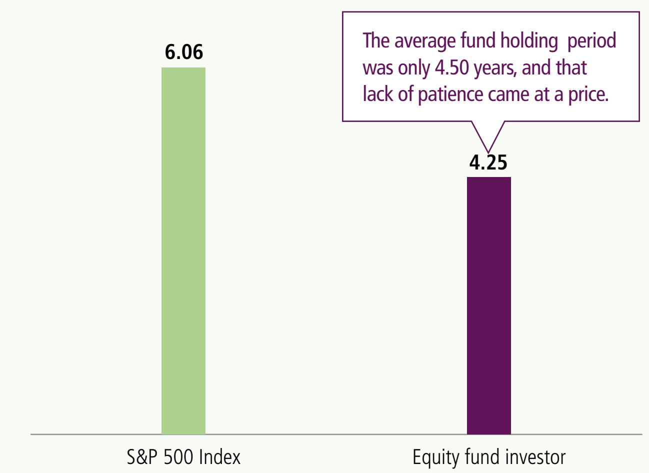
Source: The data is calculated by John Hancock Investment Management using information presented in EnCorr Software. © 2019 Morningstar, Inc. All rights reserved. Used with permission. Stocks are represented by the S&P 500 Index.

Strategy: stay invested

Because market rebounds are unpredictable, staying invested may ensure you won't miss them

The cost of moving in and out of funds

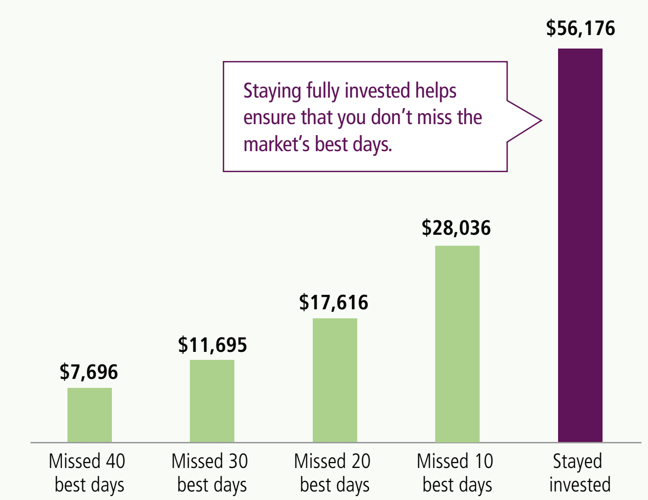
Average annual returns, 1999–2019 (%)



Source: Quantitative Analysis of Investor Behavior," DALBAR, Inc., 2020. Equity fund investor returns are calculated using data supplied by the Investment Company Institute that represents the change in total mutual fund assets after excluding sales, redemptions, and exchanges and does not reflect the performance of any John Hancock fund. This method of calculation captures realized and unrealized capital gains, dividends, interest, trading costs, sales charges, fees, expenses, and any other costs. It is not possible to invest directly in an index.

The value of staying invested

20-year growth of $10,000, 1999–2019 ($)



Source: Bloomberg, as of 12/31/19. This table is for illustrative purposes only and is a hypothetical example that does not reflect the performance of any John Hancock fund. Market performance is represented by the S&P 500 Index. It is not possible to invest directly in an index.

In any given year, it's impossible to pick the market's winners

The financial markets are unpredictable. The best-performing asset class one year may be the worst the following year, and vice versa. If you concentrate your investments in a small number of investment types, you run the risk that poor performance by one or two asset classes will damage your savings. A better strategy is to spread your assets across a broader range of investments.

Diversification helps ensure you don't own too many of the worst-performing asset classes

Annual returns of asset class categories

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BEST PERFORMER	Small-cap growth 29.09%	Large-cap growth 2.64%	Emerging markets 18.63%	Small-cap growth 43.30%	Mid-cap value 14.75%	Large-cap growth 5.67%	Small-cap value 31.74%	Emerging markets 37.75%	Large-cap growth -1.51%	Large-cap growth 36.39%
	Mid-cap growth 26.38%	Large-cap value 0.39%	Mid-cap value 18.51%	Mid-cap growth 35.74%	Large-cap value 13.45%	Mid-cap growth -0.20%	Mid-cap value 20.00%	Large-cap growth 30.21%	Mid-cap growth -4.75%	Mid-cap growth 35.47%
	Mid-cap value 24.75%	Mid-cap value -1.38%	Small-cap value 18.05%	Small-cap value 34.52%	Large-cap growth 13.05%	International -0.39%	Large-cap value 17.34%	International 25.62%	Large-cap value -8.27%	Small-cap growth 28.48%
	Small-cap value 24.50%	Mid-cap growth -1.65%	International 17.90%	Large-cap growth 33.48%	Mid-cap growth 11.90%	Small-cap growth -1.38%	Diversified equities 13.45%	Mid-cap growth 25.27%	Small-cap growth -9.31%	Diversified equities 27.27%
	Diversified equities 20.59%	Small-cap growth -2.91%	Large-cap value 17.51%	Mid-cap value 33.46%	Diversified equities 7.08%	Diversified equities -3.33%	Emerging markets 11.60%	Small-cap growth 22.17%	Diversified equities -9.44%	Mid-cap value 27.06%
	Emerging markets 19.20%	Diversified equities -4.86%	Diversified equities 17.18%	Large-cap value 32.53%	Small-cap growth 5.60%	Large-cap value -3.83%	Small-cap growth 11.32%	Diversified equities 21.80%	Mid-cap value -12.29%	Large-cap value 26.54%
	Large-cap growth 16.71%	Small-cap value -5.50%	Mid-cap growth 15.81%	Diversified equities 28.73%	Small-cap value 4.22%	Mid-cap value -4.78%	Mid-cap growth 7.33%	Large-cap value 13.66%	Small-cap value -12.86%	International 22.66%
	Large-cap value 15.51%	International -11.73%	Large-cap growth 15.26%	International 23.29%	Emerging markets -1.82%	Small-cap value -7.47%	Large-cap growth 7.08%	Mid-cap value 13.34%	International -13.36%	Small-cap value 22.39%
WORST PERFORMER	International 8.21%	Emerging markets -18.17%	Small-cap growth 14.59%	Emerging markets -2.27%	International -4.48%	Emerging markets -14.60%	International 1.51%	Small-cap value 7.84%	Emerging markets -14.25%	Emerging markets 18.90%

Which investor are you?

Psychic: Picks the best-performing asset class year after year

Best-performing portfolio	
Annual return	20.87%
Growth of $10,000	$66,575

Smart: Diversifies across asset classes to take the guesswork out of investing

Diversified portfolio	
Annual return	11.05%
Growth of $10,000	$28,532

Unlucky: Moves in and out of investments and ends up picking the worst performers

Worst-performing portfolio	
Annual return	-1.02%
Growth of $10,000	$9,028

Source: Morningstar, as of 12/31/19. Investment-grade bonds are represented by the Bloomberg Barclays U.S. Aggregate Bond Index, which tracks the performance of U.S. investment-grade bonds in government, asset-backed, and corporate debt markets. High-yield bonds are represented by the Intercontinental Exchange (ICE) Bank of America (BofA) U.S. High Yield Master II Index, which tracks the performance of globally issued, U.S. dollar-denominated high-yield bonds. Cash is represented by the Citigroup 3-Month U.S. Treasury Bill Index, which is a market-value-weighted index that tracks the performance of three-month U.S. Treasury debt. International equity is represented by the MSCI All Country (AC) World ex-USA Index, which tracks the performance of publicly traded large- and mid-cap stocks of companies in developed and emerging markets outside the United States. U.S. small-cap equity is represented by the Russell 2000 Index, which tracks the performance of 2,000 publicly traded small-cap companies in the United States. U.S. large-cap equity is represented by the Russell 1000 Index, which tracks the performance of 1,000 publicly traded large-cap companies in the United States. Alternatives are represented by an equally weighted combination of the HFRI Macro Index, the HFRI Equity Market Neutral Index, the HFRI Merger Arbitrage Index, the Morningstar real estate fund category average, the Morningstar emerging markets bond fund category average, and the Morningstar Long-Only Commodity Index. Diversified portfolio is represented by the average return of the six asset classes in the chart above, rebalanced monthly, excluding cash. It does not represent any specific index. Annual returns are based on calendar years. Indexes are unmanaged and do not take transaction costs or fees into consideration. It is not possible to invest directly in an index. Performance figures assume reinvestment of dividends and capital gains. This chart is for illustrative purposes only and does not represent the performance of any John Hancock fund. Past performance does not guarantee future results.

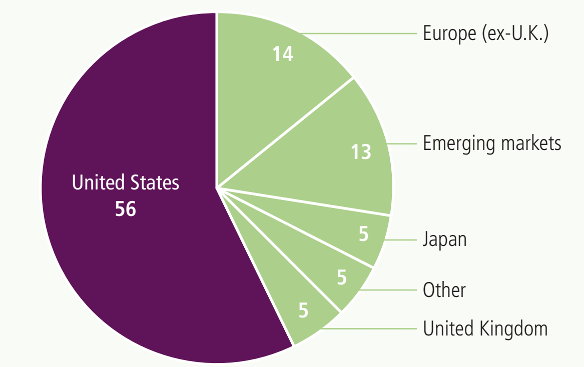
Diversification does not guarantee a profit or eliminate the risk of a loss.

Strategy: diversify

Owning a broad mix of asset classes increases your chances of navigating the market's winners and losers

International equities are nearly half of the global market (%)

Global market capitalization



Source: MSCI AC World Index, 2019. Data is as of 12/31/19 and may not equal 100% due to rounding.

Different bonds compensate investors for different risks

	Interest-rate sensitivity	Credit sensitivity
Government bonds	✓✓✓✓	✓
Municipal bonds	✓✓✓✓	✓✓
Corporate bonds	✓✓✓	✓✓✓
High-yield corporate bonds	✓✓	✓✓✓✓
Foreign bonds	✓	✓✓
Bank loans	✓	✓✓✓✓

✓ Little ✓✓ Somewhat ✓✓✓ Moderate ✓✓✓✓ High

Source: Interest-rate and credit sensitivity are provided by John Hancock Investment Management estimates and are subject to change. Interest-rate sensitivity is the measure of how sensitive the value of a fixed-income investment is to changes in interest rates. Generally, the value of a fixed-income investment will decline as interest rates rise. Credit sensitivity measures the risk that the issuer will be unable or unwilling to make principal or interest payments.

Your advisor is your greatest resource

- Has been through trying markets before
- Can help you make a plan and stick to it
- Knows when your plan needs to evolve
- Can help protect you from emotional investing

John Hancock Investment Management

A trusted brand

John Hancock Investment Management is a premier asset manager representing one of America's most trusted brands, with a heritage of financial stewardship dating back to 1862. Helping our shareholders pursue their financial goals is at the core of everything we do. It's why we support the role of professional financial advice and operate with the highest standards of conduct and integrity.

A better way to invest

We serve investors globally through a unique multimanager approach: We search the world to find proven portfolio teams with specialized expertise for every strategy we offer, then we apply robust investment oversight to ensure they continue to meet our uncompromising standards and serve the best interests of our shareholders.

Results for investors

Our unique approach to asset management enables us to provide a diverse set of investments backed by some of the world's best managers, along with strong risk-adjusted returns across asset classes.

Investing involves risks, including the potential loss of principal. Please see each fund's prospectus to learn all of the risks associated with each investment.

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