10 things every investor should know about investing

John Hancock Investment Management

EXTERNAL

10 things every investor should know about investing

1. Investing may help your savings catch up to your financial goals
2. Investing in U.S. stocks is one of the ways to build wealth
3. International stocks can help you cast a wider net
4. Bonds may offer a more stable foundation
5. Alternative investments may help you win by not losing
6. There's no wrong time to invest
7. Diversification is a time-tested way to help mitigate risk
8. Active and passive strategies can play a role
9. Your emotions can be your worst enemy
10. Your advisor is your greatest resource

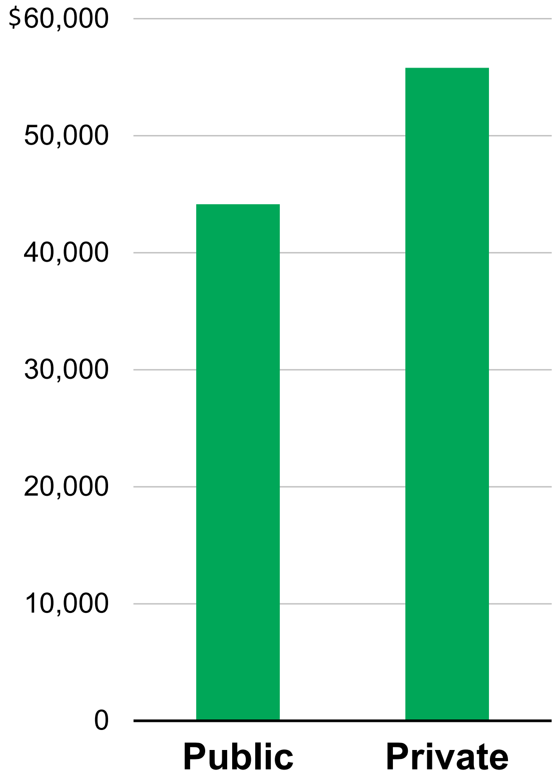
Diversification does not guarantee a profit or eliminate the risk of a loss.

Principle 1

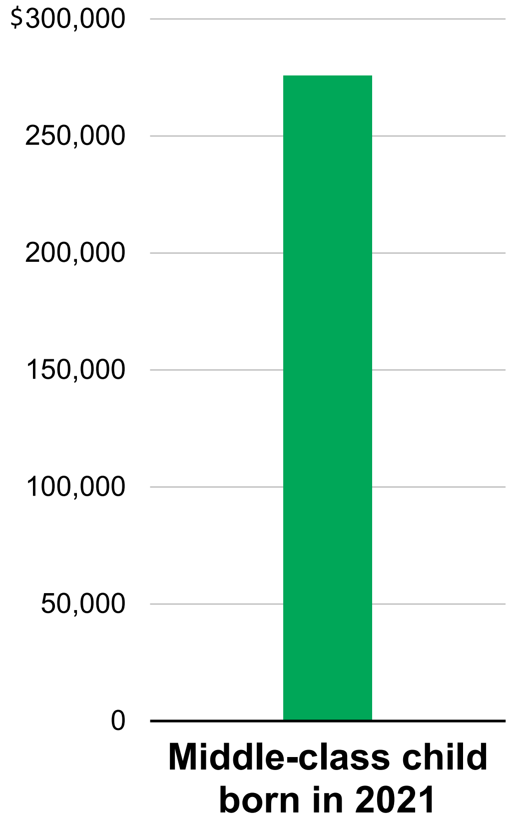
Investing may help your savings catch up to your financial goals

Life's financial goals are often too big for savings alone

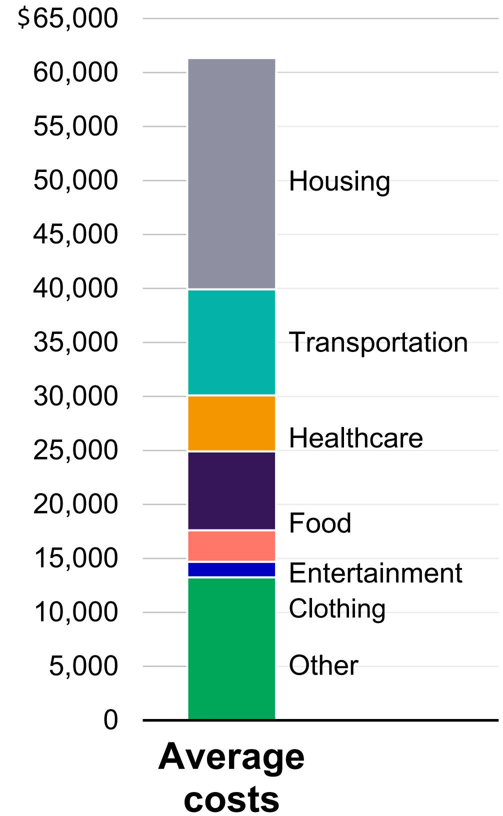
Average annual cost of a 4-year college program **$44,150-$55,800**[1]



Raising a child until age 18 **$275,708**[2]



Single year in retirement **$61,334**[3]



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1 *Annual Survey of Colleges*, College Board NCES, IPEDS fall 2021 enrollment data. Costs, based on four years, include tuition, room and board, books, transportation and other college-related expenses. **2** *Expenditures on Children by Families*, U.S. Department of Agriculture, January 2017, adjusted to 2021 using the average annual inflation rate published by U.S. Bureau of Labor Statistics between 2016 to 2021.
3 "Consumer Expenditures – 2020," U.S. Bureau of Labor Statistics, September 2021.

The key to bridging the gap is your rate of return

Remember the Rule of 72!

How many years
will it take to
double your money?

$$\frac{72}{\text{Rate of return}} = \textbf{Years to double your money}$$

Saver	Investor
$\frac{72}{2.51\%}$ = **28.7 years**	$\frac{72}{9.73\%}$ = **7.4 years**

Average return of
cash
since 1928

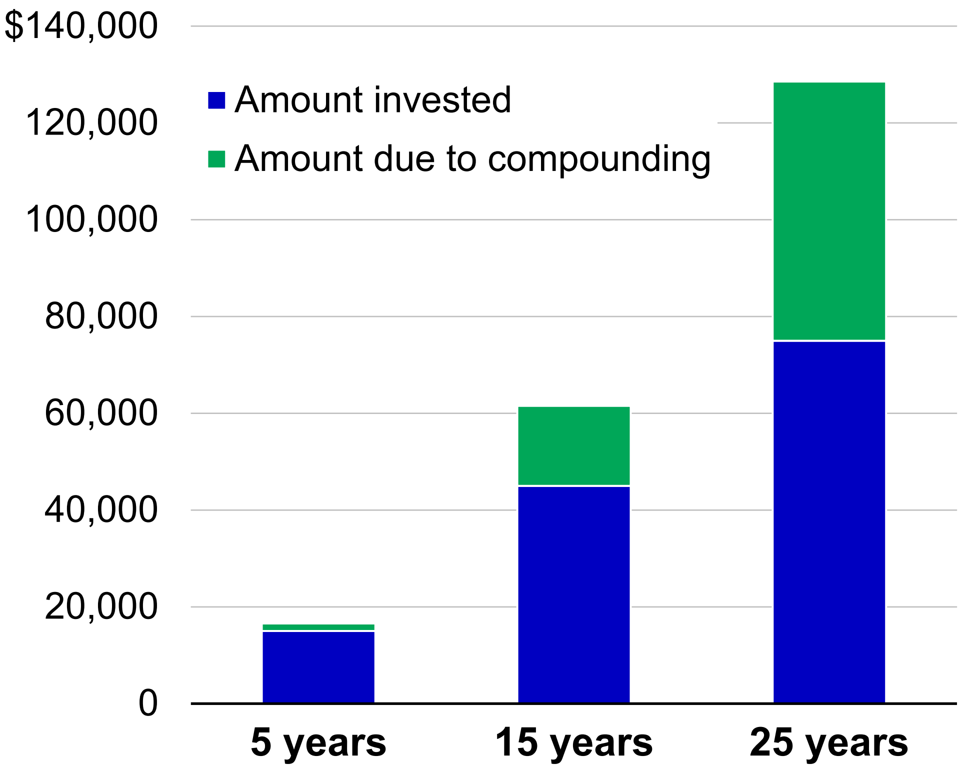
Average return of
large-cap U.S. stocks
since 1928

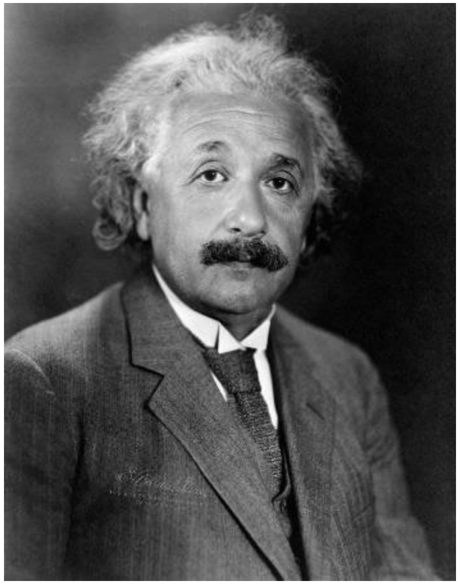
Source: Bloomberg, 2021. Stocks are represented by the S&P 500 Index. See index definitions at the end of the presentation. It is not possible to invest directly in an index. Cash is represented by the Bloomberg Barclays U.S. Treasury Bill Index.

Reinvested compound interest is a powerful ally over time

Compounding is the process whereby the earnings on your investment begin to generate their own earnings over time

Hypothetical $250 invested monthly earning 4% annually





"Compound interest is the eighth wonder of the world.

"He who understands it, earns it … he who doesn't … pays it."

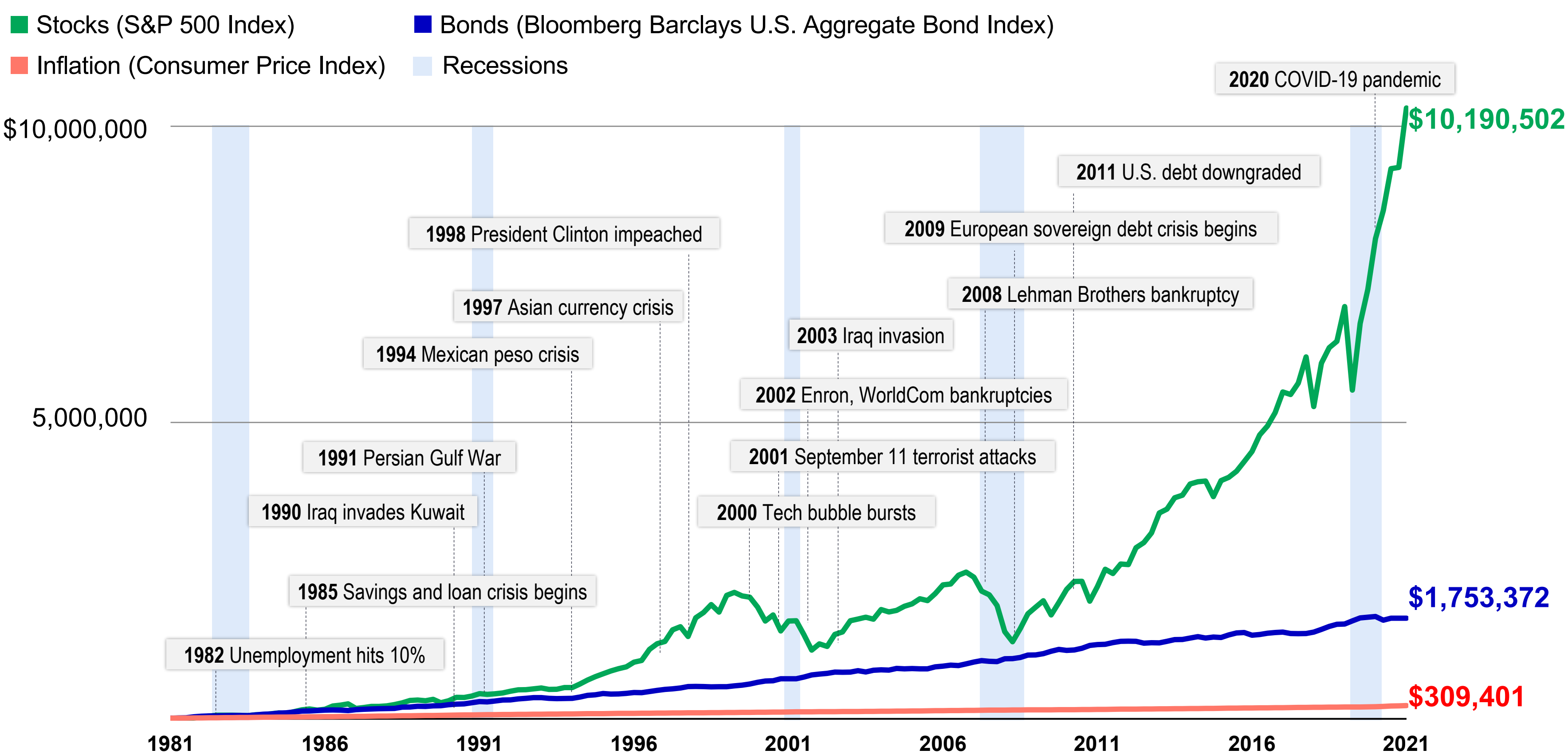
~ *Albert Einstein*

Principle 2

Investing in U.S. stocks is one of the ways to build wealth

Stocks have outpaced bonds and inflation over time, despite a litany of volatility-inducing events

Growth of $100,000, 1981-2021



Source: Bloomberg, John Hancock Investment Management, 2021. Stocks are represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. 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. Inflation is represented by the Consumer Price Index, which 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.

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In any given year, returns may be negative

Distribution of annual returns, S&P 500 Index, 1928–2021

Number of occurrences

- **Positive years** 69 (73%)
- **Negative years** 25 (27%)

-50% to -40%	-40% to -30%	-30% to -20%	-20% to -10%	-10% to 0%	0% to 10%	10% to 20%	20% to 30%	30% to 40%	40% to 50%	50% to 60%
1	**2**	**3**	**5**	**14**	**14**	**21**	**16**	**13**	**4**	**1**
1931	2008	2002	2001	2018	2015	2020	2021	2019	1958	1954
	1937	1974	1973	2000	2011	2016	2017	2013	1935	
		1930	1957	1990	2007	2014	2009	1997	1933	
			1941	1981	2005	2012	2003	1995	1928	
			1940	1977	1994	2010	1999	1991		
				1969	1992	2006	1998	1989		
				1966	1987	2004	1996	1985		
				1962	1984	1993	1983	1980		
				1953	1978	1988	1982	1975		
				1946	1970	1986	1976	1955		
				1939	1960	1979	1967	1950		
				1934	1956	1972	1963	1945		
				1932	1948	1971	1961	1936		
				1929	1947	1968	1951			
						1965	1943			
						1964	1938			
						1959				
						1952				
						1949				
						1944				
						1942				

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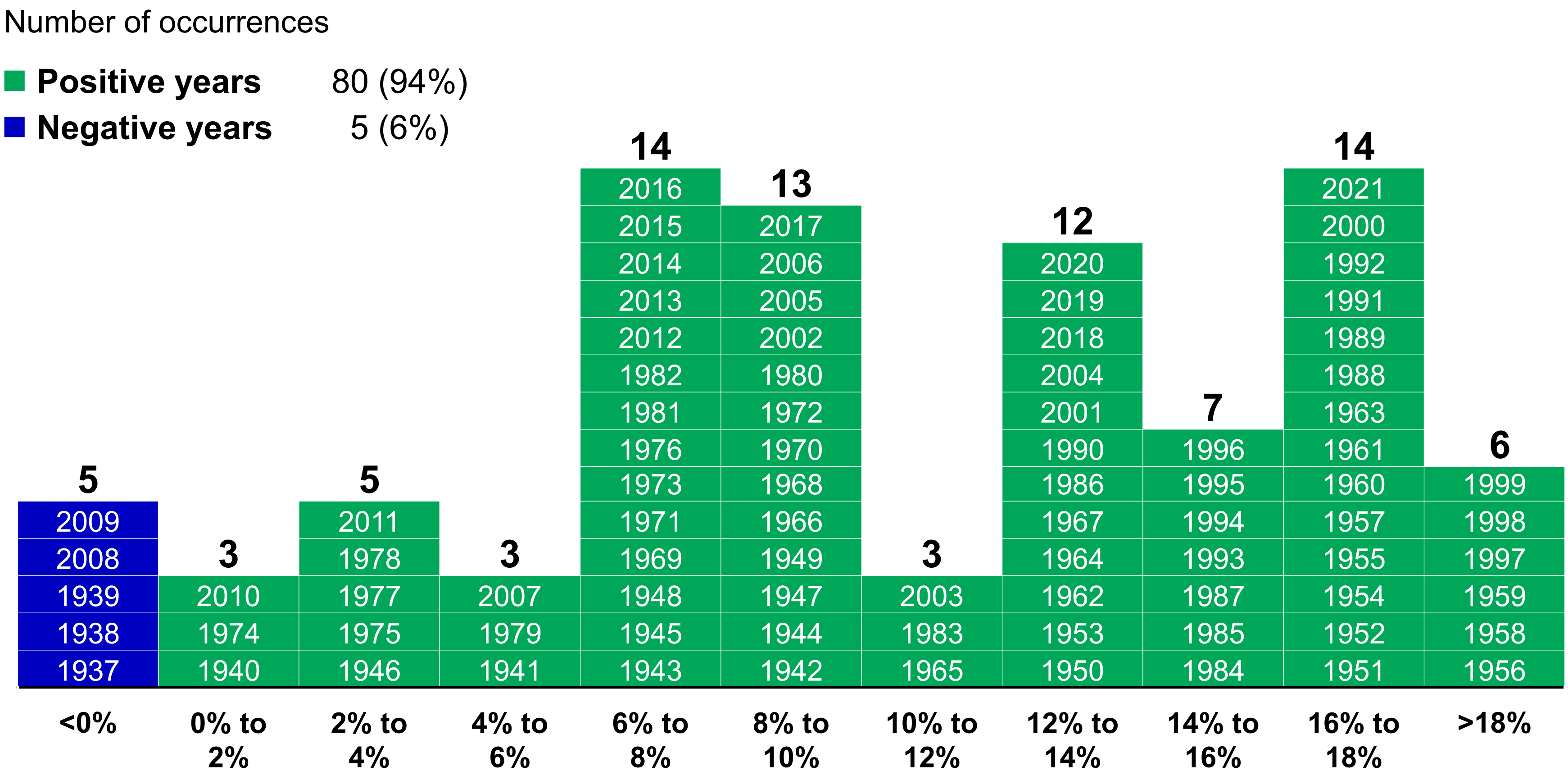
Source: Bloomberg, 2021. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.

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

Rolling 10-year stock market returns, 1928–2021



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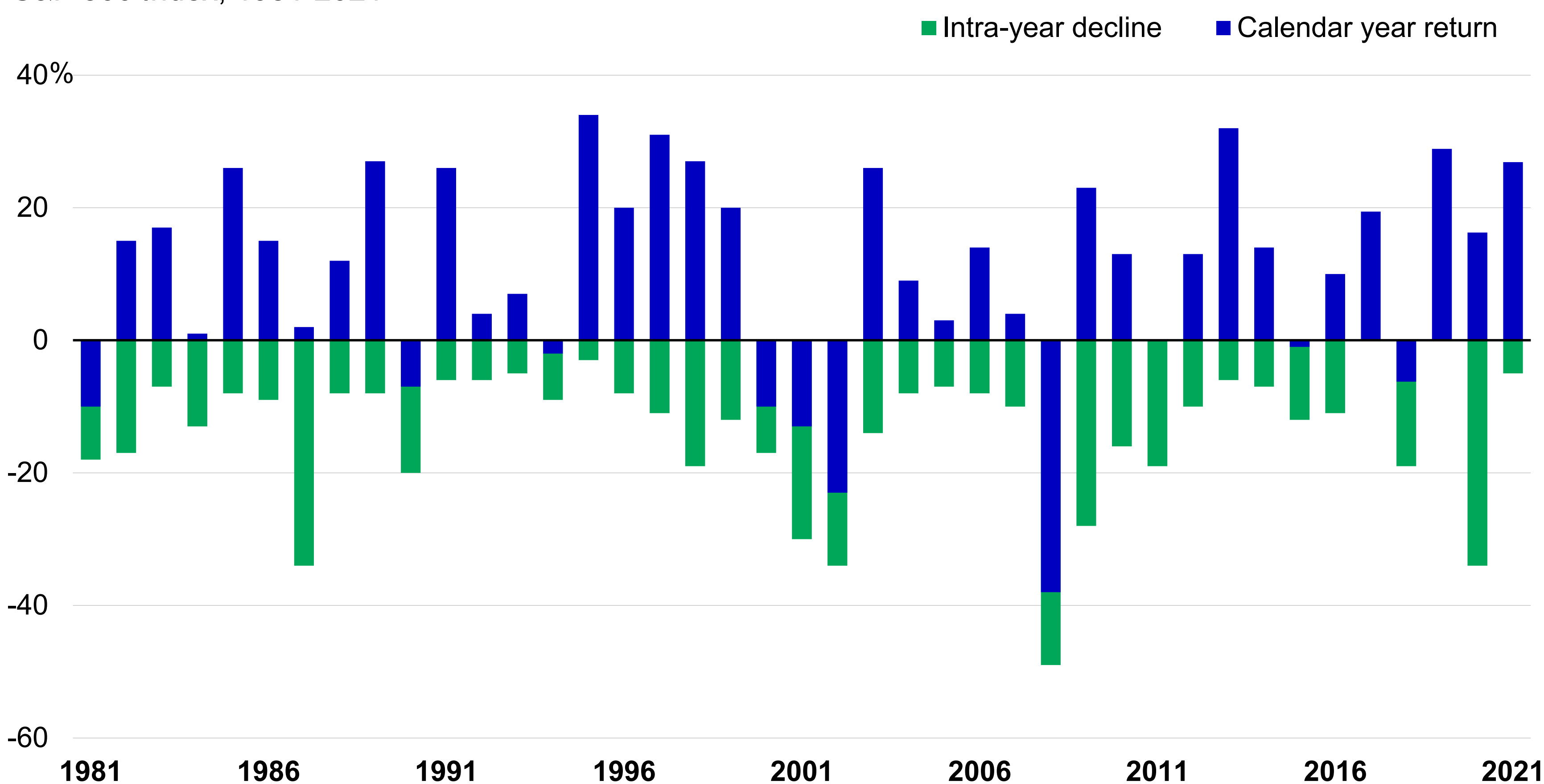
Source: The data is calculated by John Hancock Investment Management using information presented in Bloomberg, 2021. All rights reserved. Used with permission. Stocks are represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results. Data begins in 1928 with the first 10-year period in 1937.

Intra-year corrections are normal

The market will often experience setbacks before moving higher

S&P 500 Index, 1981-2021



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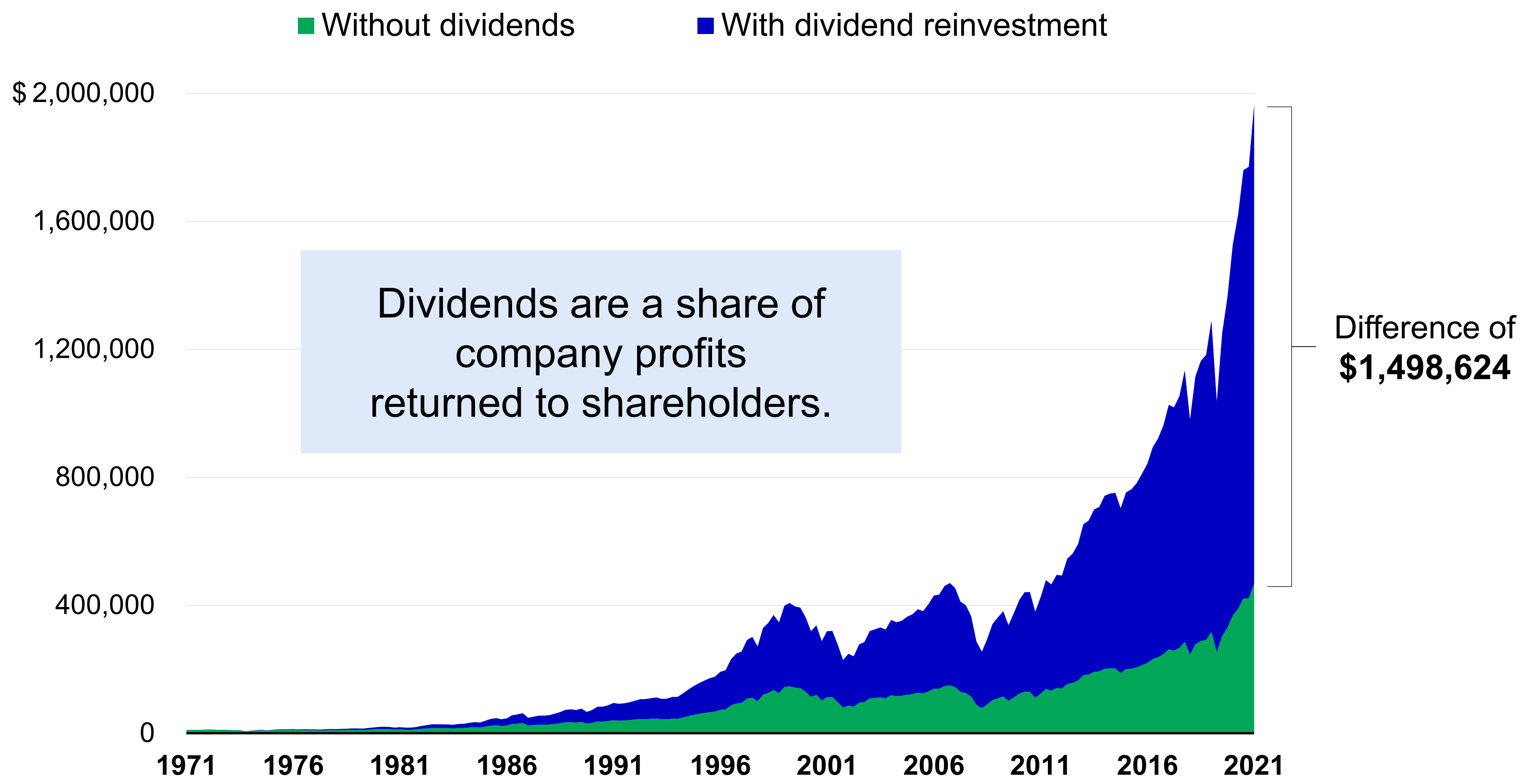
Source: Bloomberg, Standard & Poor's, as of 12/31/21. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Dividends are a built-in source of returns

Hypothetical growth of $10,000, 1971-2021



Source: Bloomberg, 2021. 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. Dividends are not guaranteed and can be discontinued at any time. Past performance does not guarantee future results.

Principle 3

International stocks can help you cast a wider net

International companies provide products you use every day

SOUTH KOREA

11:00 A.M.
Check the weather forecast online with your **Samsung** Galaxy® mobile phone

JAPAN

8:00 A.M.
Drive to work in your **Toyota** Camry

SWITZERLAND

7:00 A.M.
Add a touch of **Nestlé** Coffee-mate® creamer to your morning coffee

CANADA

1:00 P.M.
Pick up cash at one of **Toronto-Dominion Bank's** TD Bank ATMs

GERMANY

3:00 P.M.
Take some **Bayer** Aspirin® for afternoon headache relief

NETHERLANDS

5:00 P.M.
On your commute home, fill up at a **Shell** station

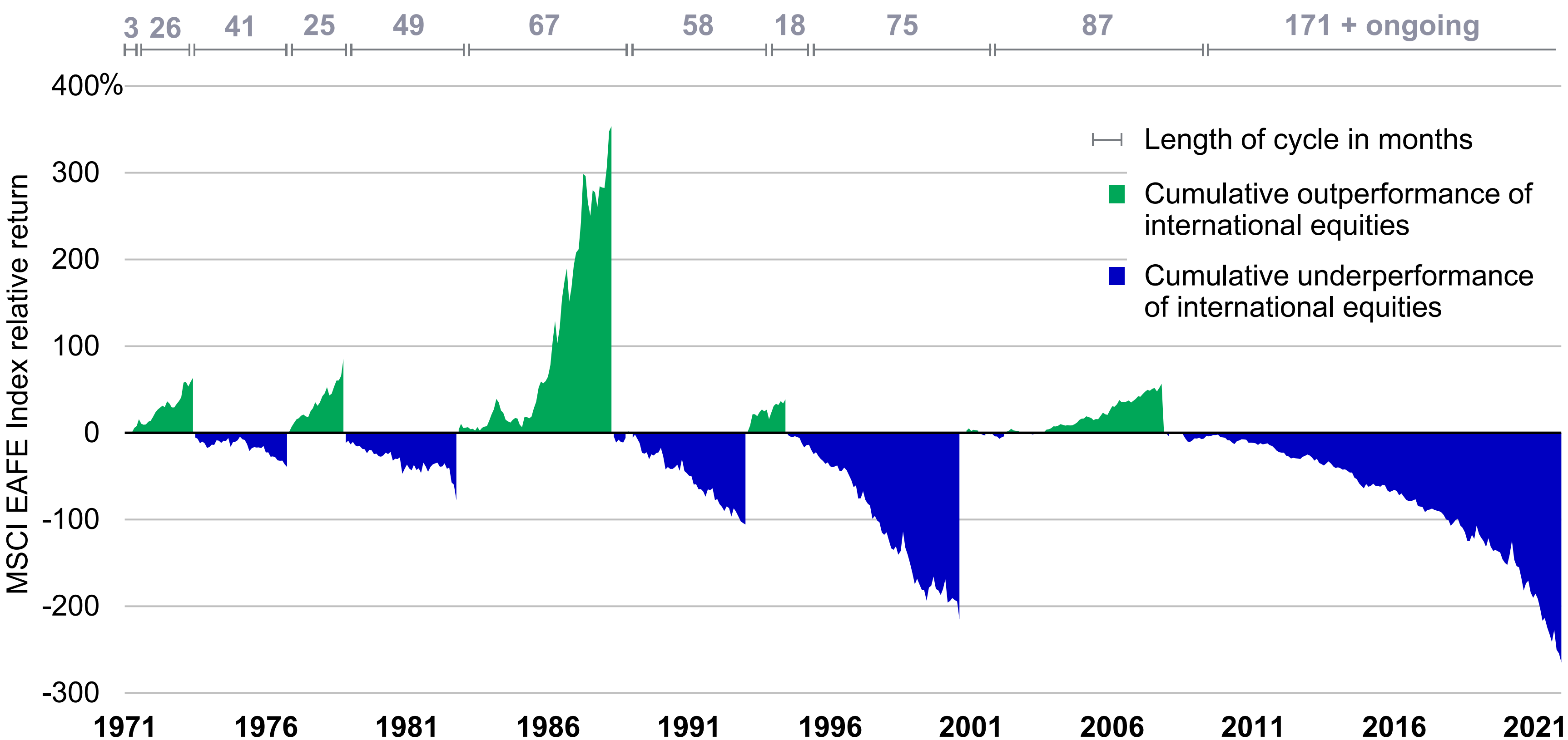
BELGIUM

6:00 P.M.
Unwind with a Budweiser® beer from **Anheuser-Busch InBev**

International markets have periods of outperformance

After their longest bout of underperformance, international equities are due for a comeback

Cumulative relative performance of the MSCI EAFE Index against the S&P 500 Index



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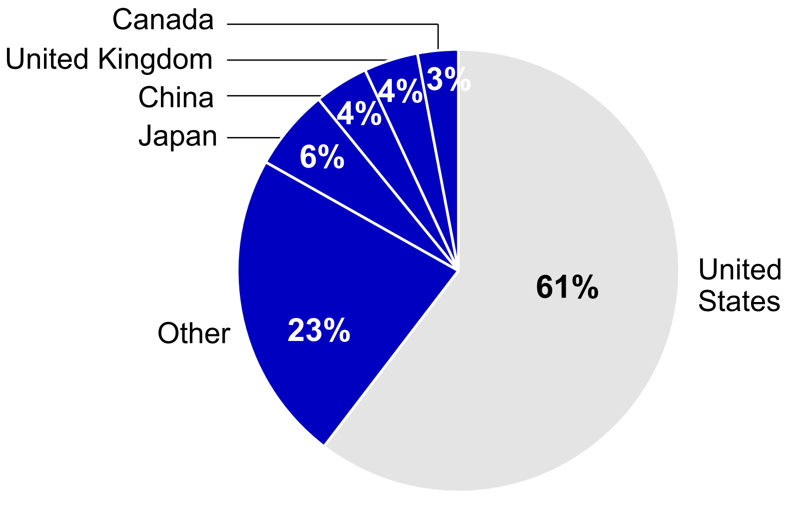
Source: Bloomberg as of 12/31/2021. International equities and U.S. equities are represented by the MSCI EAFE Index and S&P 500 Index, respectively. See index definitions at the end of the presentation. It is not possible to invest directly in an index.

Nearly half the world's investment opportunities are overseas

- International equities are nearly half of the global market

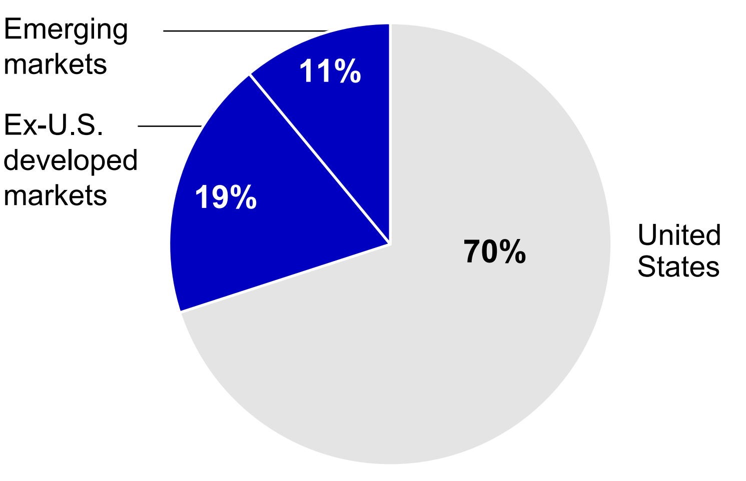
- Yet most individual investors allocated only a small percentage to international stocks

Global market capitalization



Source: MSCI ACWI, 2021. Data is as of 12/31/21 and may not equal 100% due to rounding. See index definitions at the end of the presentation.

Average international equity allocation for U.S. financial advisors' moderate risk portfolio models

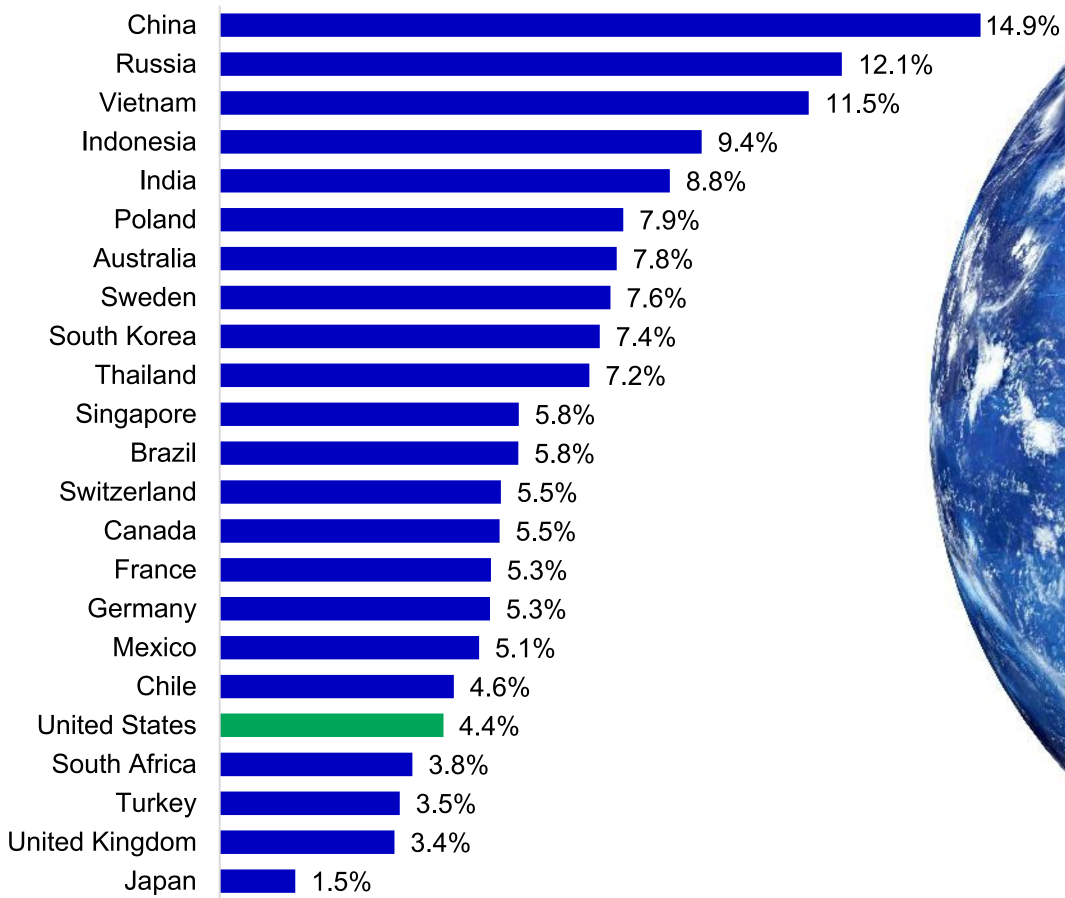


Source: *Asset Allocation for Moderate Risk Investors, 2021*, Cerulli Associates, in partnership with the Investments & Wealth Institute and the Financial Planning Association® (FPA®)

The future looks bright for overseas growth

In terms of growing wealth, the United States trails most other countries

Average annual percentage growth of wealth per adult in local currencies, selected countries, 2000–2020



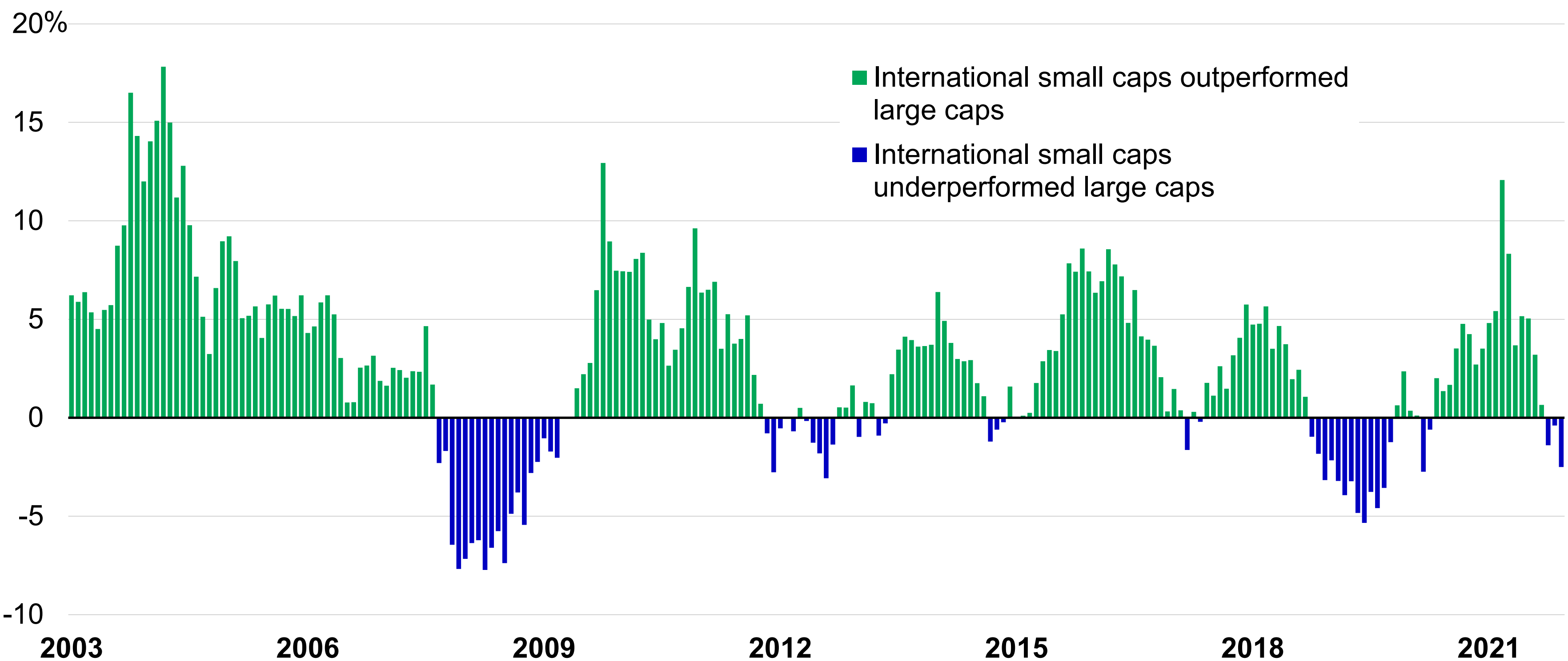
Source: *Credit Suisse Global Wealth Report, 2021*, Credit Suisse Research Institute, June 2021.

Opportunity for active managers: market cap flexibility

Small-cap stocks may be poised to build on their historical performance advantage over large caps

Rolling 12-month excess returns of international small-cap stocks vs. international large-cap stocks

	Median 12-month excess return vs. MSCI EAFE Index	% of periods with positive excess returns
MSCI EAFE SMID Cap Index	3.01%	75.00%



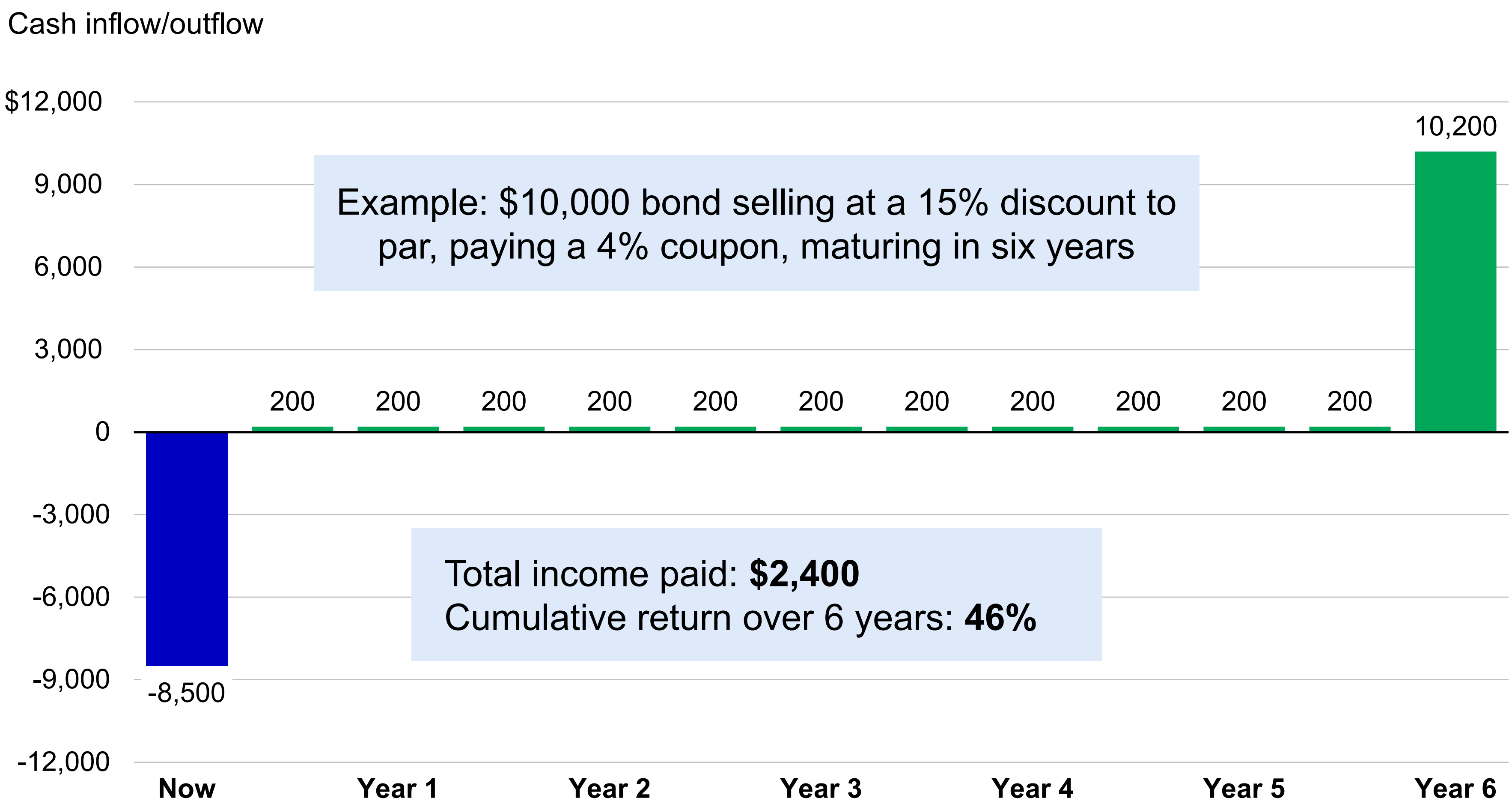
Source: Bloomberg, as of 12/31/2021. International small-cap stocks and international large-cap stocks are represented by the MSCI EAFE SMID Cap and MSCI EAFE Index, respectively. See slides 61–63 for index definitions. It is not possible to invest directly in an index.

Principle 4

Bonds may offer a more stable foundation

Bonds offer the promise of regular cash flow, plus the return of principal

Bond investment cash flow



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This hypothetical scenario is for illustrative purposes only and is not a prediction of future market conditions.

Bonds compensate investors for different types of risks

	Interest-rate sensitivity	Credit sensitivity
U.S. Government bonds	● High	● Little
Municipal bonds	● High	● Somewhat
Corporate bonds	● Moderate	● Moderate
High-yield corporate bonds	● Somewhat	● High
Foreign bonds	● Little	● Somewhat
Bank loans	● Little	● High

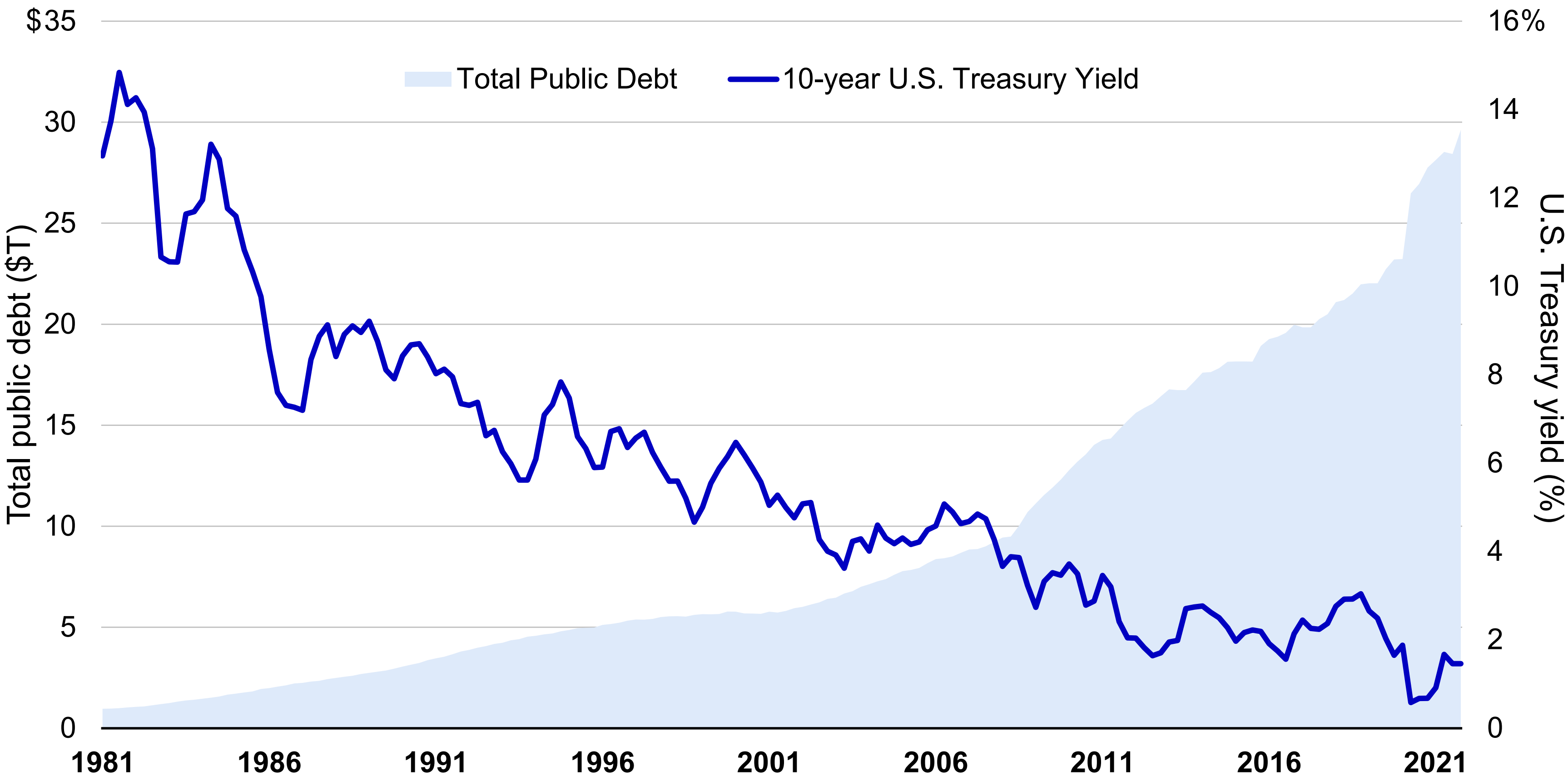
● Little ● Somewhat ● Moderate ● High

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 fixed-income investments 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 an issuer will be unable or unwilling to make principal or interest payments. See index definitions at the end of the presentation. It is not possible to invest directly in an index. This chart does not illustrate the performance of any John Hancock fund. Asset allocation and diversification do not guarantee a profit or eliminate the risk of a loss.

The future for fixed income is unlikely to resemble the past

The volume of U.S. Treasury debt has soared, along with investor demand

10-year U.S. Treasury yields and federal debt, 1981-2021



Source: Bloomberg, Federal Reserve Bank of St. Louis, as of 12/31/2021.

Look beyond the mainstream for new opportunities

Bond market performance, 2001–2021

BEST PERFORMER ↕ WORST PERFORMER

2001	2002	2003	2004	2005	2006	2007
IG corporates 10.31%	Foreign bonds 21.99%	High yield 28.15%	Foreign bonds 12.14%	Emerging-market debt 10.25%	High yield 11.72%	Foreign bonds 11.45%
Short-term credit 9.73%	10-year U.S. Treasuries 14.62%	Emerging-market debt 22.21%	Emerging-market debt 11.62%	Floating rate 5.69%	Emerging-market debt 9.86%	10-year U.S. Treasuries 9.79%
Emerging-market debt 9.70%	Emerging-market debt 13.65%	Foreign bonds 18.52%	High yield 10.87%	Cash 3.00%	Floating rate 7.33%	Mortgage backed 6.96%
Mortgage backed 8.22%	IG corporates 10.12%	Floating rate 11.01%	**Diversified bonds 6.58%**	High yield 2.74%	Foreign bonds 6.94%	Emerging-market debt 6.16%
Diversified bonds 5.64%	Short-term credit 8.88%	**Diversified bonds 10.75%**	Floating rate 5.60%	Mortgage backed 2.61%	**Diversified bonds 6.25%**	Short-term credit 6.09%
High yield 4.48%	**Diversified bonds 8.84%**	IG corporates 8.24%	IG corporates 5.39%	**Diversified bonds 2.17%**	Mortgage backed 5.22%	**Diversified bonds 6.00%**
10-year U.S. Treasuries 4.29%	Mortgage backed 8.75%	Short-term credit 5.40%	10-year U.S. Treasuries 4.83%	10-year U.S. Treasuries 1.99%	Cash 4.76%	Cash 4.74%
Cash 4.09%	Cash 1.70%	Mortgage backed 3.07%	Mortgage backed 4.70%	IG corporates 1.68%	Short-term credit 4.69%	IG corporates 4.56%
Floating rate 2.65%	Floating rate 1.12%	10-year U.S. Treasuries 1.32%	Short-term credit 2.44%	Short-term credit 1.35%	IG corporates 4.30%	High yield 2.24%
Foreign bonds –3.54%	High yield –1.89%	Cash 1.07%	Cash 1.24%	Foreign bonds –9.20%	10-year U.S. Treasuries 1.34%	Floating rate 1.88%

2008	2009	2010	2011	2012	2013	2014
10-year U.S. Treasuries 20.06%	High yield 57.51%	High yield 15.91%	10-year U.S. Treasuries 17.14%	Emerging-market debt 17.44%	High yield 7.42%	10-year U.S. Treasuries 10.72%
Foreign bonds 10.11%	Floating rate 44.87%	Emerging-market debt 12.24%	IG corporates 8.15%	High yield 15.59%	Floating rate 6.15%	IG corporates 7.46%
Mortgage backed 8.52%	Emerging-market debt 29.82%	Floating rate 9.98%	Emerging-market debt 7.35%	IG corporates 9.82%	Short-term credit 1.24%	Emerging-market debt 7.43%
Cash 1.80%	IG corporates 18.68%	IG corporates 9.00%	Mortgage backed 6.32%	Floating rate 9.43%	Cash 0.05%	Mortgage backed 6.15%
Short-term credit –1.13%	**Diversified bonds 17.21%**	**Diversified bonds 7.91%**	**Diversified bonds 6.00%**	**Diversified bonds 7.27%**	**Diversified bonds –0.69%**	**Diversified bonds 3.93%**
Diversified bonds –4.04%	Short-term credit 13.52%	10-year U.S. Treasuries 7.90%	Foreign bonds 5.17%	Short-term credit 5.51%	Mortgage backed –1.45%	High yield 2.50%
IG corporates –4.94%	Mortgage backed 5.75%	Mortgage backed 5.50%	High yield 4.38%	10-year U.S. Treasuries 4.18%	IG corporates –1.53%	Floating rate 2.06%
Emerging-market debt –12.03%	Foreign bonds 4.39%	Short-term credit 5.44%	Short-term credit 3.04%	Mortgage backed 2.60%	Foreign bonds –4.56%	Short-term credit 1.95%
High yield –26.39%	Cash 0.16%	Foreign bonds 5.21%	Floating rate 1.82%	Foreign bonds 1.51%	Emerging-market debt –5.25%	Cash 0.03%
Floating rate –28.75%	10-year U.S. Treasuries –9.71%	Cash 0.13%	Cash 0.08%	Cash 0.07%	10-year U.S. Treasuries –7.83%	Foreign bonds –2.68%

2015	2016	2017	2018	2019	2020	2021
Mortgage backed 1.51%	High yield 17.49%	Foreign bonds 10.33%	Cash 1.86%	Emerging-market debt 15.04%	Foreign bonds 10.78%	Floating rate 5.40%
Emerging-market debt 1.18%	Emerging-market debt 10.15%	Emerging-market debt 10.26%	Floating rate 1.14%	IG corporates 14.54%	10-year US Treasuries 10.58%	High yield 5.36%
Short-term credit 1.06%	Floating rate 9.88%	High yield 7.47%	Short-term credit 1.11%	High yield 14.41%	IG corporates 9.89%	Cash 0.05%
10-year U.S. Treasuries 0.91%	IG corporates 6.11%	IG corporates 6.42%	Mortgage backed 0.99%	**Diversified bonds 9.02%**	**Diversified bonds 6.58%**	Short-term credit -0.55
Cash 0.03%	**Diversified bonds 5.53%**	**Diversified bonds 5.53%**	10-year U.S. Treasuries -0.03%	10-year U.S. Treasuries 8.91%	High yield 6.17%	**Diversified bonds -0.80%**
Floating rate –0.38%	Short-term credit 2.58%	Floating rate 4.25%	**Diversified bonds -0.58%**	Floating rate 8.17%	Emerging-market debt 5.26%	IG corporates -1.04%
IG corporates –0.68%	Foreign bonds 1.81%	Mortgage backed 2.47%	Foreign bonds -1.82%	Short-term credit 6.58%	Short-term credit 5.19%	Mortgage backed -1.04
Diversified bonds –0.70%	Mortgage backed 1.67%	Short-term credit 2.32%	High yield -2.26%	Mortgage backed 6.35%	Mortgage backed 3.87%	Emerging-market debt -1.80%
High yield –4.64%	Cash 0.27%	10-year U.S. Treasuries 2.07%	IG corporates -2.51%	Foreign bonds 5.32%	Floating rate 2.78%	10-year US Treasuries -3.68%
Foreign bonds –5.54%	10-year U.S. Treasuries –0.16%	Cash 0.84%	Emerging-market debt -4.26%	Cash 2.25%	Cash 0.58%	Foreign bonds -9.68

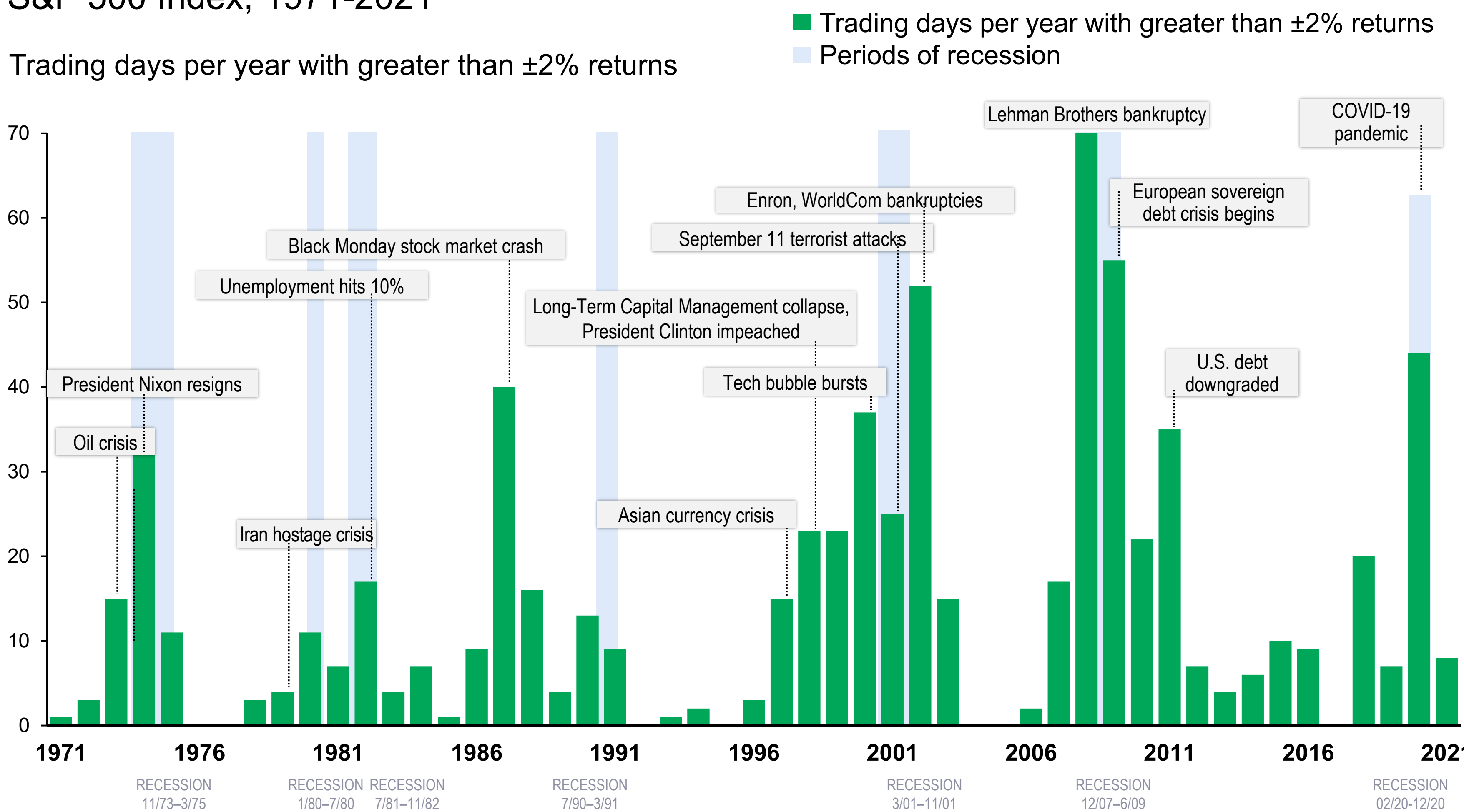
Source: Morningstar Direct, as of 12/31/2021.This chart does not illustrate the performance of any John Hancock fund. Emerging-market debt is measured by the J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified Index, which tracks the performance of U.S. dollar-denominated Brady bonds, Eurobonds, and traded loans issued by sovereign and quasisovereign entities. The index caps its exposure to countries with larger amounts of outstanding debt. High yield is measured 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. Mortgage backed is measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities Index, an unmanaged index comprising 15- and 30-year fixed-rate securities backed by the mortgage pools of Ginnie Mae, Freddie Mac, and Fannie Mae. Floating rate is measured by the Credit Suisse (CS) Leveraged Loan Index, which tracks the U.S. dollar-denominated, non-investment-grade leveraged loan market. Short-term credit is measured by the Bloomberg Barclays 1–5 Year U.S. Credit Index which tracks the performance of investment-grade U.S. corporate and government-related bonds with maturities between one and five years. Cash is represented by the three-month U.S. Treasury bill, published by the U.S. Federal Reserve. Foreign bonds are represented by the FTSE World Government Bond ex-U.S. Index, which measures the performance of fixed-rate, local currency, investment-grade sovereign bonds, excluding the United States. Investment-grade corporate bonds (IG corporates) are measured by the Bloomberg Barclays U.S. Corporate Index, which tracks the performance of investment-grade, U.S. dollar-denominated, fixed-rate, taxable corporate bond market. 10-year U.S. Treasuries are measured by the ICE BofA 10-year U.S. Treasury Index, a one-security index, rebalanced monthly, comprising the most recently issued 10-year U.S. Treasury note. Diversified bonds reflect an equal-weighted blend of all nine categories shown in the chart, rebalanced quarterly. Performance figures assume reinvestment of dividends and capital gains. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Principle 5

Alternative investments may help you win by not losing

The level of stock market volatility in recent years is unprecedented

S&P 500 Index, 1971-2021



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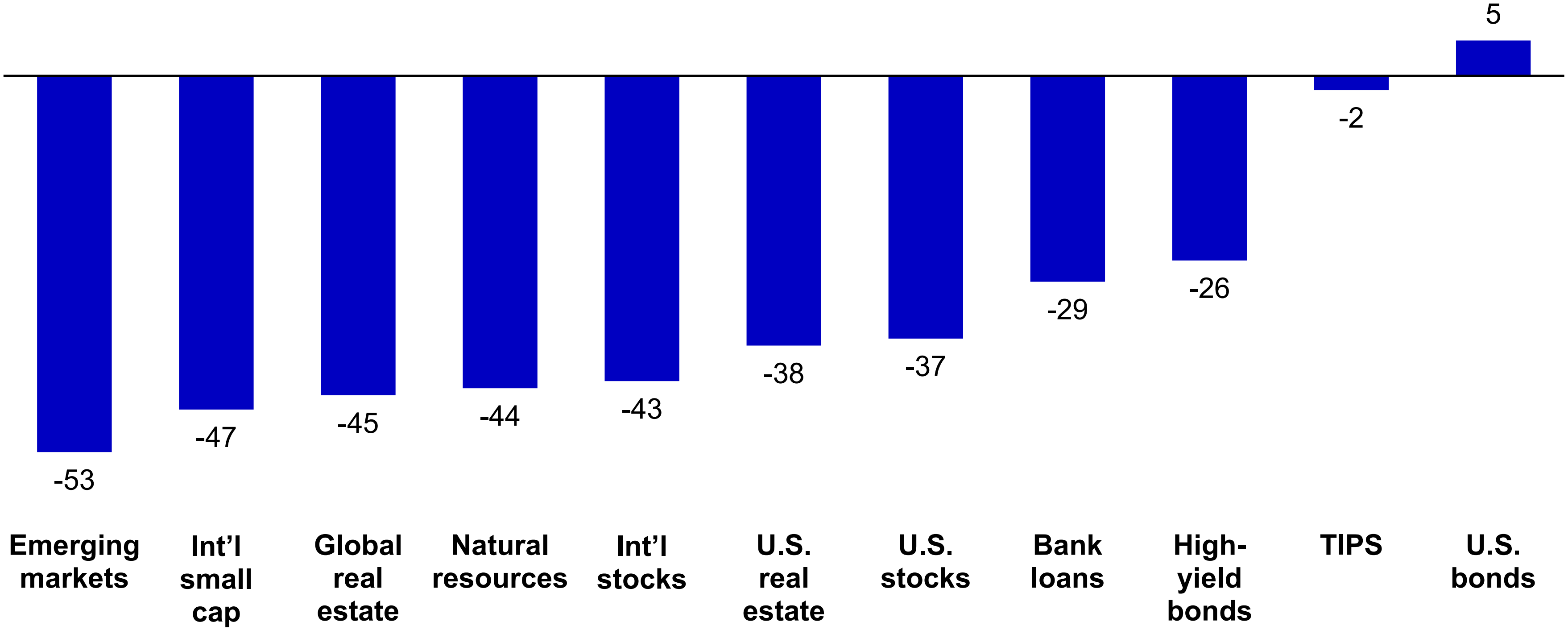
Source: Bloomberg, John Hancock Investment Management, as of 2021. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Traditional asset classes may not offer much protection in a severe market sell-off

Nowhere to hide

Total returns by asset class, 2008 (%)



Source: Bloomberg, as of 2008. Emerging markets are represented by the MSCI Emerging Markets Index, which tracks the performance of publicly traded large- and mid-cap emerging-market stocks. International small cap is represented by the MSCI Europe, Australasia, and Far East (EAFE) Small Cap Index, which tracks the performance of publicly traded small-cap stocks of companies in those regions. Global real estate is represented by the Dow Jones Wilshire Global REIT Index, a measure of the types of global real estate securities that represent the ownership and operation of commercial or residential real estate. Natural resources are represented by the MSCI Natural Resources Index, which features equity securities of companies engaged in the natural resources industry. International stocks are represented by the MSCI EAFE Growth Index, which tracks the performance of publicly traded growth-oriented large- and mid-cap stocks of companies in those regions. U.S. real estate is represented by the FTSE NAREIT Equity REIT Index, an unmanaged index consisting of the most actively traded real estate investment trusts (REITs). U.S. stocks are represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. Bank loans are represented by the Bloomberg Barclays High Yield Municipal Bond Index, which tracks the performance of municipal bonds rated below investment grade (BBB/Baa) and those that are unrated. 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. TIPS (Treasury Inflation-Protected Securities) are represented by the Barclays U.S. Treasury U.S. TIPS Index, an unmanaged index that comprises inflation-protected securities issued by the U.S. Treasury. U.S. 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. It is not possible to invest directly in an index. Diversification does not guarantee a profit or eliminate the risk of a loss. Past performance does not guarantee future results.

Limiting losses is paramount

How long does it take to recover from losses?

Assuming	10% loss	20% loss	30% loss	40% loss
1% yearly return	11 years	23 years	36 years	51 years
3% yearly return	4 years	8 years	13 years	18 years
5% yearly return	3 years	5 years	8 years	11 years
7% yearly return	2 years	4 years	6 years	8 years

Source: John Hancock Investment Management.

The benefits of being different

Many alternative assets and strategies have shown low correlation to stocks

		Correlation
Global REITs	Real estate investment trusts that typically own and operate income-producing property	0.68
Emerging-market bonds	Debt securities issued by developing countries, frequently with different economic drivers and rates of inflation than developed nations	0.54
Relative value	A strategy predicated on realization of a valuation discrepancy in the relationship between multiple securities	0.71
Emerging-market stocks	Stocks of nations experiencing rapid growth and industrialization, often with a nascent but growing middle class	0.70
Gold	A commodity traditionally used as a store of value and a hedge against inflation	0.06
Macro strategies	Top-down strategies in which the investment process is predicated on movements in underlying economic variables	0.39
Merger arbitrage	A strategy focused on securities of companies that are engaged in a corporate transaction	0.61
Commodities	Markets where contracts for raw materials such as wheat are exchanged	0.48
Market neutral	An investment strategy that hedges out specific market risks	0.64

Source: Morningstar Direct, as of 12/31/2021. See index definitions at the end of the presentation. The diversified alternatives portfolio is an equal weighting of all of the above indexes. It is not possible to invest directly in an index. Diversification does not guarantee a profit or eliminate the risk of a loss. Past performance does not guarantee future results.

Principle 6

There's no wrong time to invest

Markets recover from crises

Market events and recovery from the bottom

Event	Reaction dates	Loss during the event	1 month later	1 year later	5 years later	10 years later
Fall of France	5/9/40–6/22/40	-16.90%	0.70%	5.00%	15.70%	13.20%
Outbreak of Korean War	6/23/50–7/13/50	-12.20%	10.20%	42.20%	27.70%	18.50%
Cuban missile crisis	8/23/62–10/23/62	-9.90%	15.50%	41.10%	15.80%	11.10%
Nixon resigns	8/9/74–8/29/74	-13.40%	-6.80%	30.20%	14.60%	14.60%
Dotcom bubble	3/10/00-10/4/02	-40.62%	13.60%	31.07%	16.10%	8.36%
September 11 attacks	9/10/01–9/21/01	-11.60%	11.30%	-11.10%	8.30%	3.60%
Collapse of Lehman Brothers	9/5/08–11/20/08	-39.10%	18.30%	48.80%	21.70%	15.83%
COVID-19 pandemic	02/19/20-03/23/20	-33.79%	25.23%	77.78%	TBD	TBD

John Hancock Investment Management

Source: John Hancock Investment Management, 2021. 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. This is a hypothetical example and does not reflect the performance of any John Hancock fund. Past performance does not guarantee future results.

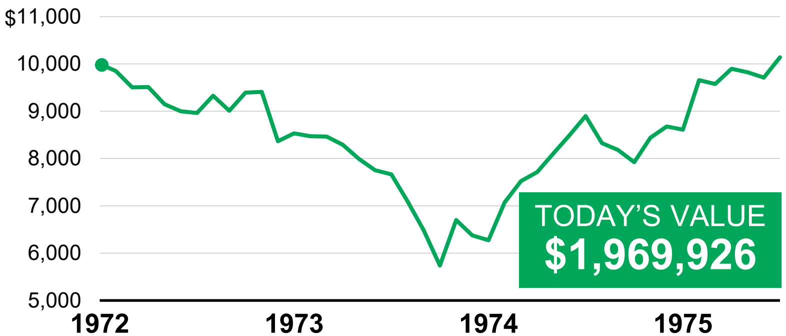
Ignore short-term events and focus on the long-term

Despite investing before a crisis, history has shown you will make money over the long-term

S&P 500 Index cumulative return

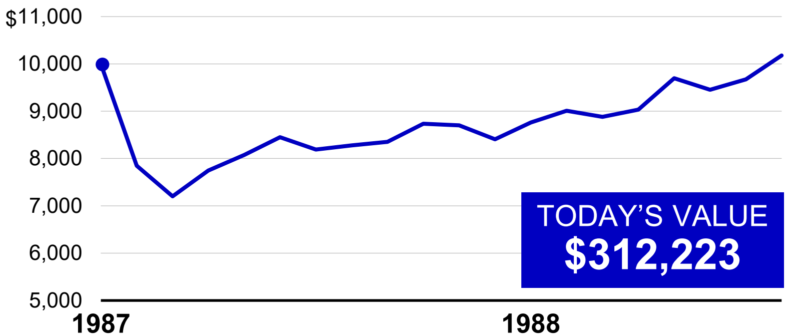
Oil crisis, Jan. 1973–Jun. 1976

Number of months to recover: 42



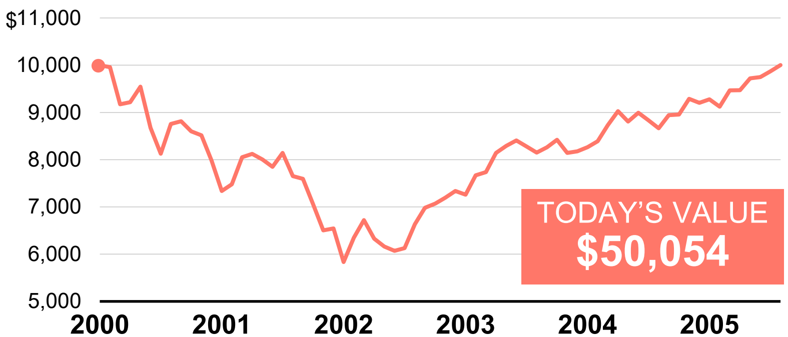
Stock market crash, Oct. 1987–Apr. 1989

Number of months to recover: 19



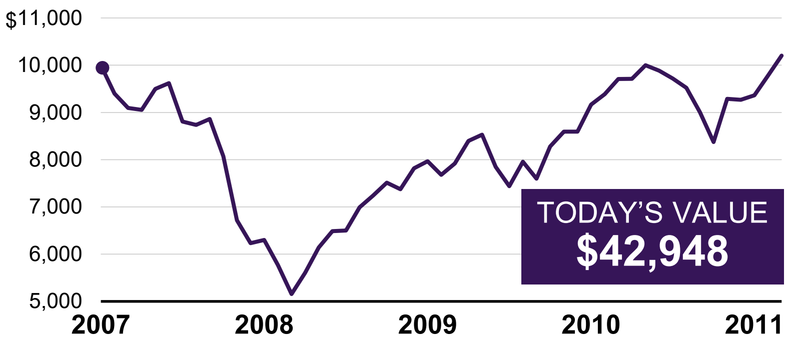
Dot-com crash, Oct. 2000–Oct. 2006

Number of months to recover: 73



Banking and credit crisis, Dec. 2007–Feb. 2012

Number of months to recover: 51

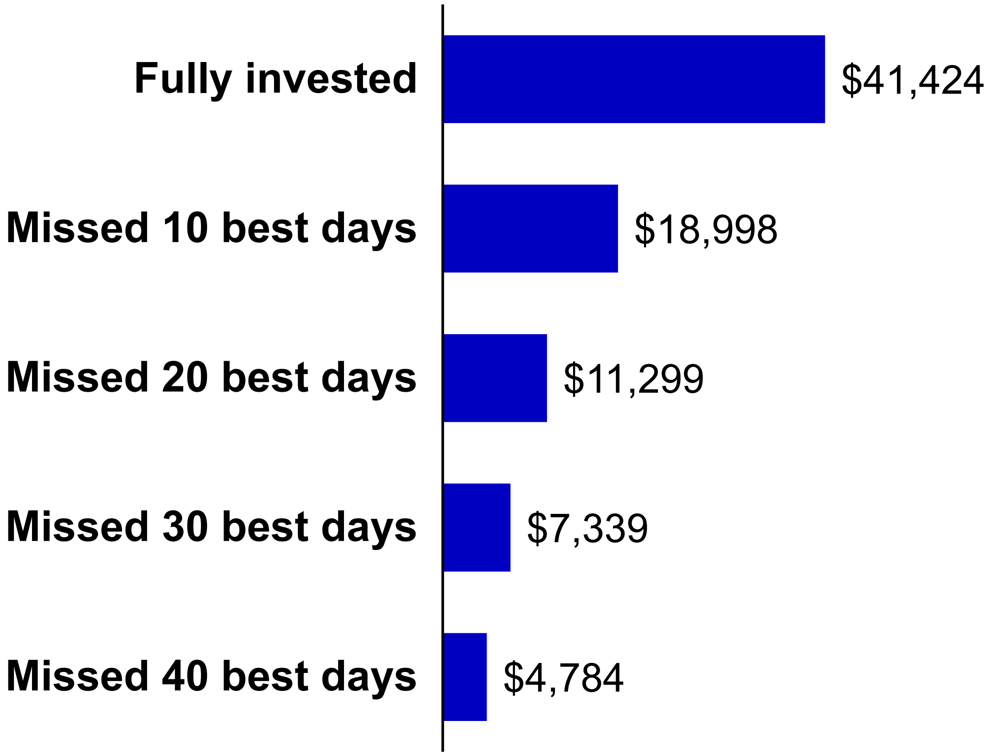


John Hancock Investment Management

Source: John Hancock Investment Management, as of 12/31/21. 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. This is a hypothetical example and does not reflect the performance of any John Hancock fund. Past performance does not guarantee results.

The key is not missing the market's best days

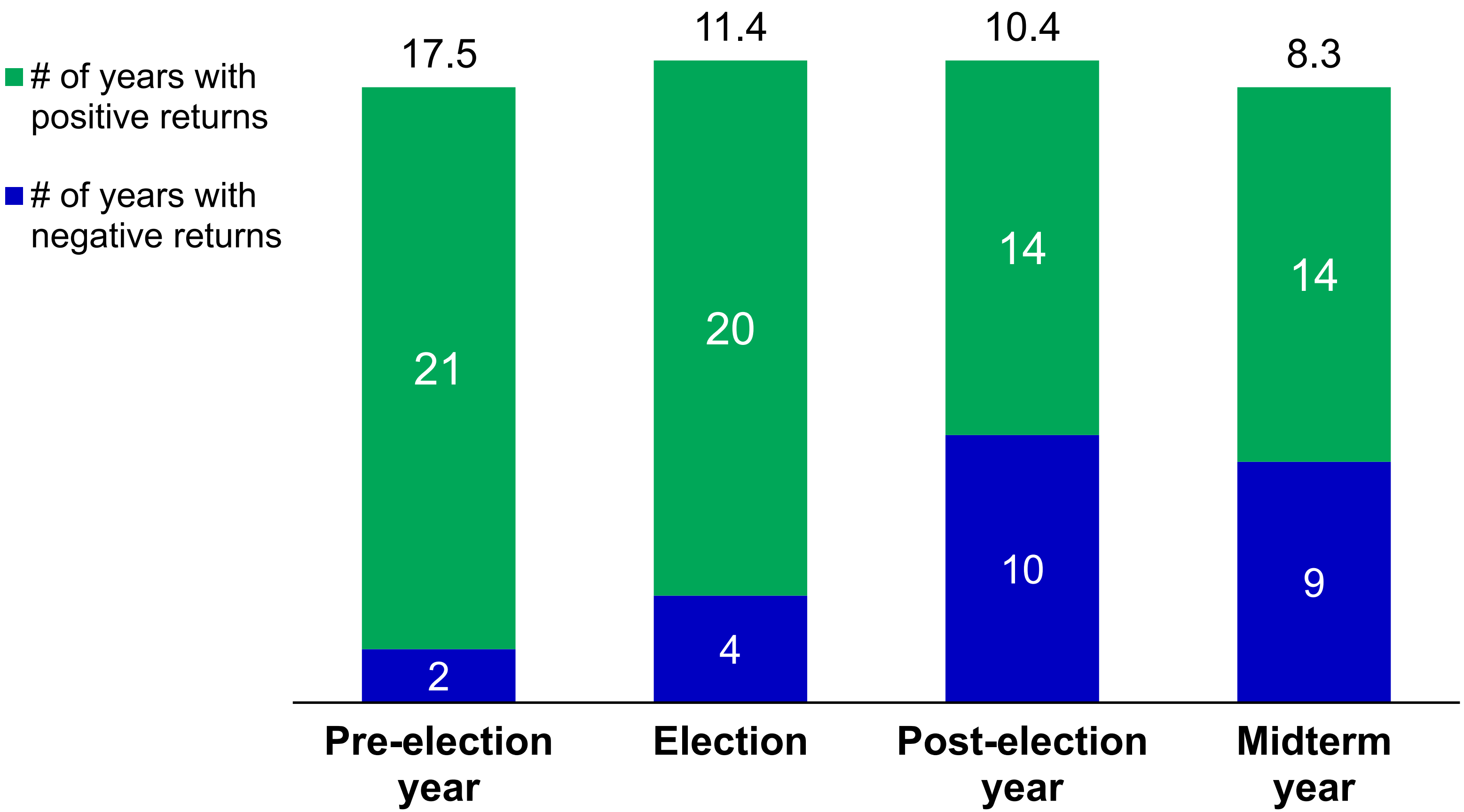
20-year growth of $10,000, 2001–2021



Source: Bloomberg, as of 12/31/2021. This table is for illustrative purposes only. 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. This is a hypothetical example and does not reflect the performance of any John Hancock fund. Past performance does not guarantee future results.

Elections? On average, presidential election cycles have been positive for stocks

Average returns for the S&P 500 Index, 1928–2021 (%)



Source: Bloomberg, as of 12/31/2021. 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.

Which party is better for stocks once in the White House?

President	Start	End	Cumulative return (%)	Annualized return (%)
Roosevelt, T. (R)	9/14/1901	3/4/1909	21.6	2.7
Taft, W. (R)	3/4/1909	3/4/1913	-1.3	-0.3
Wilson, W. (D)	3/4/1913	3/4/1921	-6.9	-0.9
Harding, W. (R)	3/4/1921	8/2/1923	17.4	6.9
Coolidge, C. (R)	8/2/1923	3/4/1929	255.9	25.5
Hoover, H. (R)	3/4/1929	3/4/1933	-82.8	-35.6
Roosevelt, F. (D)	3/4/1933	4/12/1945	194.4	9.3
Truman, H. (D)	4/12/1945	1/20/1953	81.7	8.0
Eisenhower, D. (R)	1/20/1953	1/20/1961	120.3	10.4
Kennedy, J. (D)	1/20/1961	11/22/1963	12.2	4.1
Johnson, L. (D)	11/22/1963	1/20/1969	30.9	5.3
Nixon, R. (R)	1/20/1969	8/9/1974	-16.5	-3.2
Ford, G. (R)	8/9/1974	1/20/1977	23.4	8.9
Carter, J. (D)	1/20/1977	1/20/1981	-0.9	-0.2
Reagan, R. (R)	1/20/1981	1/20/1989	135.1	11.3
Bush, G. (R)	1/20/1989	1/20/1993	45.0	9.7
Clinton, W. (D)	1/20/1993	1/20/2001	226.6	15.9
Bush, G.W. (R)	1/20/2001	1/20/2009	-24.9	-3.5
Obama, B. (D)	1/20/2009	1/20/2017	149.4	12.1
Trump, D. (R)	1/20/2017	1/20/2021	57.3	12.0
Biden, J. (D)	1/20/2021	-	11.3[1]	11.3
	Weighted Average Republican		**57.6**	**6.3**
	Weighted Average Democrat		**108.0**	**7.8**

John Hancock Investment Management

Source: Bloomberg, Bespoke Investment, John Hancock Investment Management, 2022.
[1]As of January 20, 2022.

Principle 7

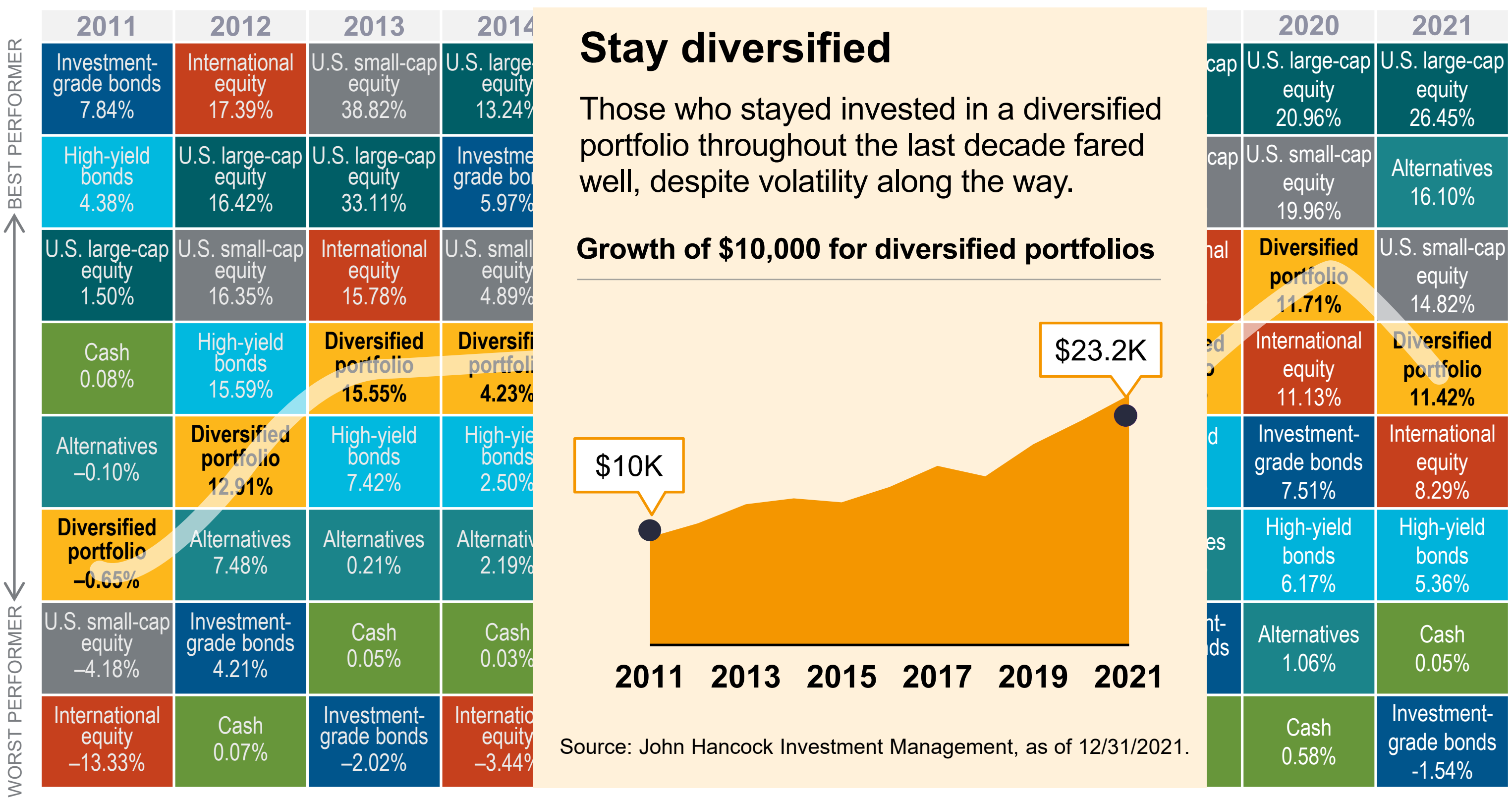
Diversification is a time-tested way to mitigate risk

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

The markets are unpredictable

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

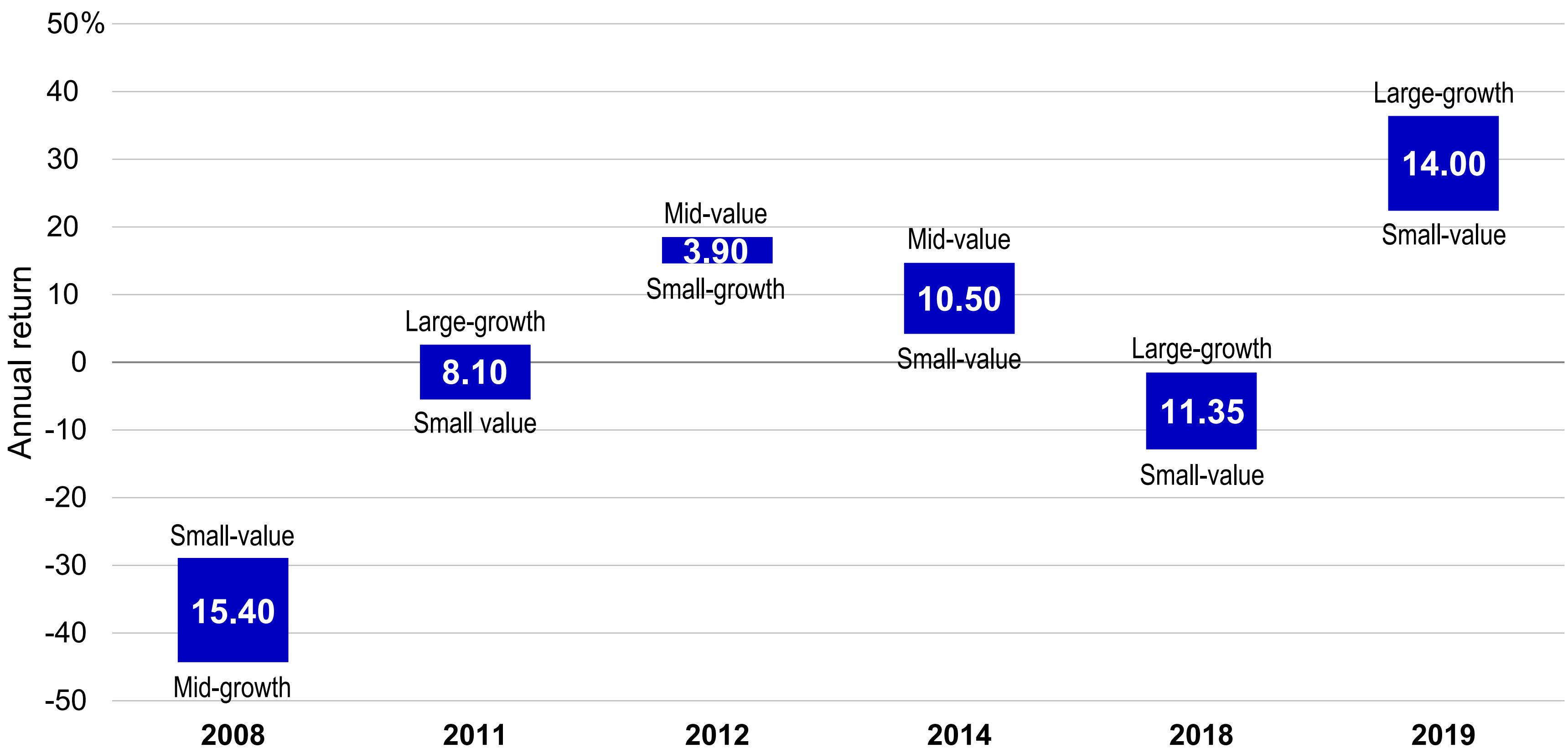
Annual returns of asset class categories



Source: Morningstar, as of 12/31/2021. 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 FTSE 3-Month U.S. Treasury Bill Index, which tracks the performance of the most recent three-month U.S. Treasury bill issues. International equity is represented by the MSCI All Country World Index (ACWI) ex-U.S. Index, which tracks the performance of publicly traded large- and mid-cap stocks of companies in 22 developed markets and 23 emerging markets. 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. Diversification does not guarantee a profit or eliminate the risk of a loss. Past performance does not guarantee future results.

In some years, traditional diversification didn't always work well

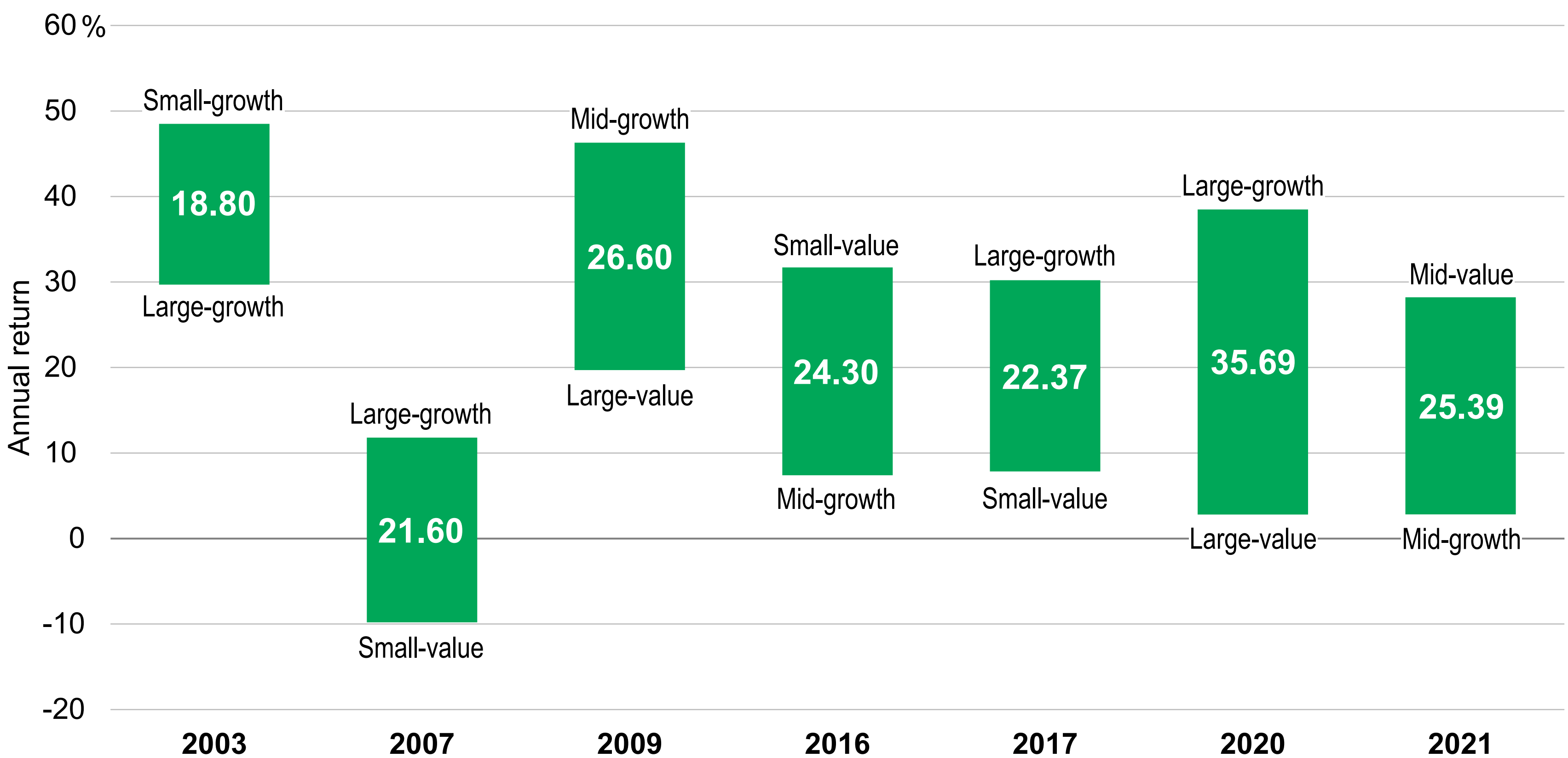
Percentage point difference between annual returns of the best and worst asset class categories



Source: Bloomberg, as of 12/31/2021. Large growth is represented by the Russell 1000 Growth Index, mid value is represented by the Russell Mid Cap Value Index, mid growth is represented by the Russell Mid Cap Growth Index, small value is represented by the Russell 2000 Value Index, and small growth is represented by the Russell 2000 Growth Index. See index definitions at the end of the presentation. It is not possible to invest directly in an index. Past performance does not guarantee future results.

In other years, it did

Percentage point difference between annual returns of the best and worst asset class categories

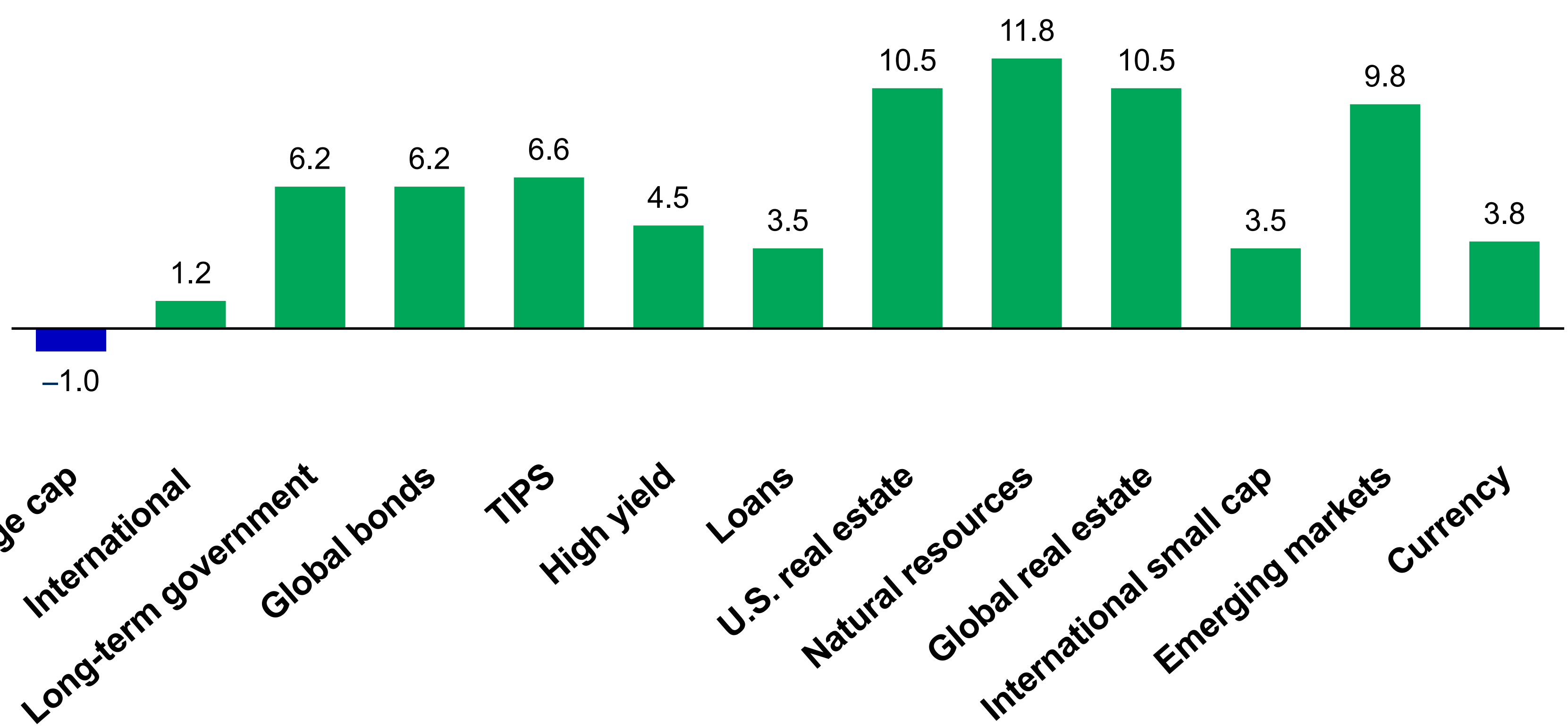


John Hancock Investment Management

Source: Bloomberg, as of 12/31/2021. Large value is represented by the Russell 1000 Value Index, large growth by the Russell 1000 Growth Index, mid growth is represented by the Russell Mid Cap Growth Index, small value is represented by the Russell 2000 Value Index, and small growth is represented by the Russell 2000 Growth Index. See slides 61–63 for index definitions. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Nontraditional asset classes can play a role during difficult periods for equities

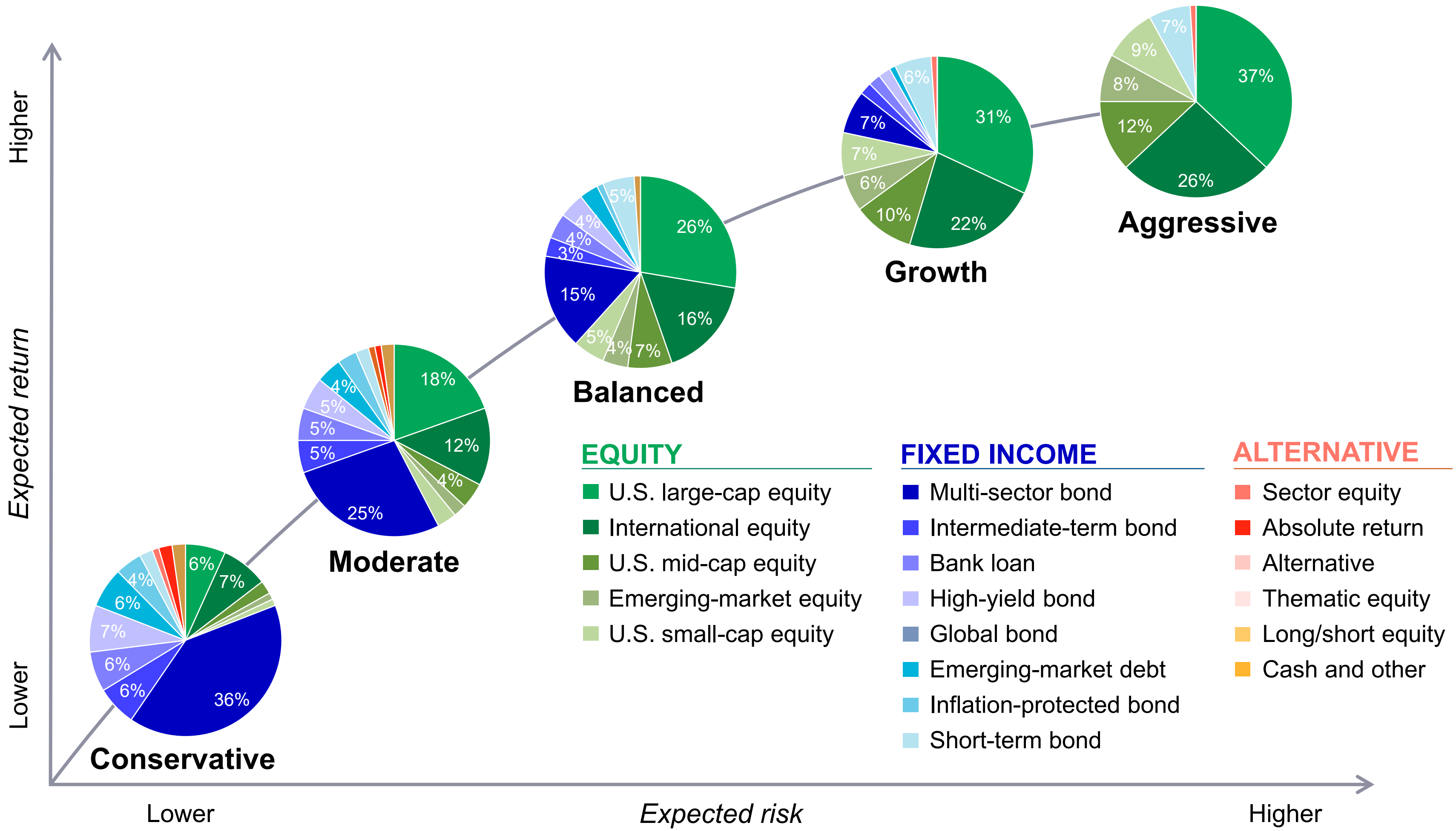
Average annual returns during the lost decade, 2000–2009



John Hancock Investment Management

Source: Morningstar Direct, as of 12/31/2021. Performance numbers reflect a total return average of funds in each Morningstar category, as applicable; assume reinvestment of all distributions; and do not reflect payment of any sales charges. See slides 61–63 for index definitions. See slides 61–63 for index definitions. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Your asset mix should change as your goals change

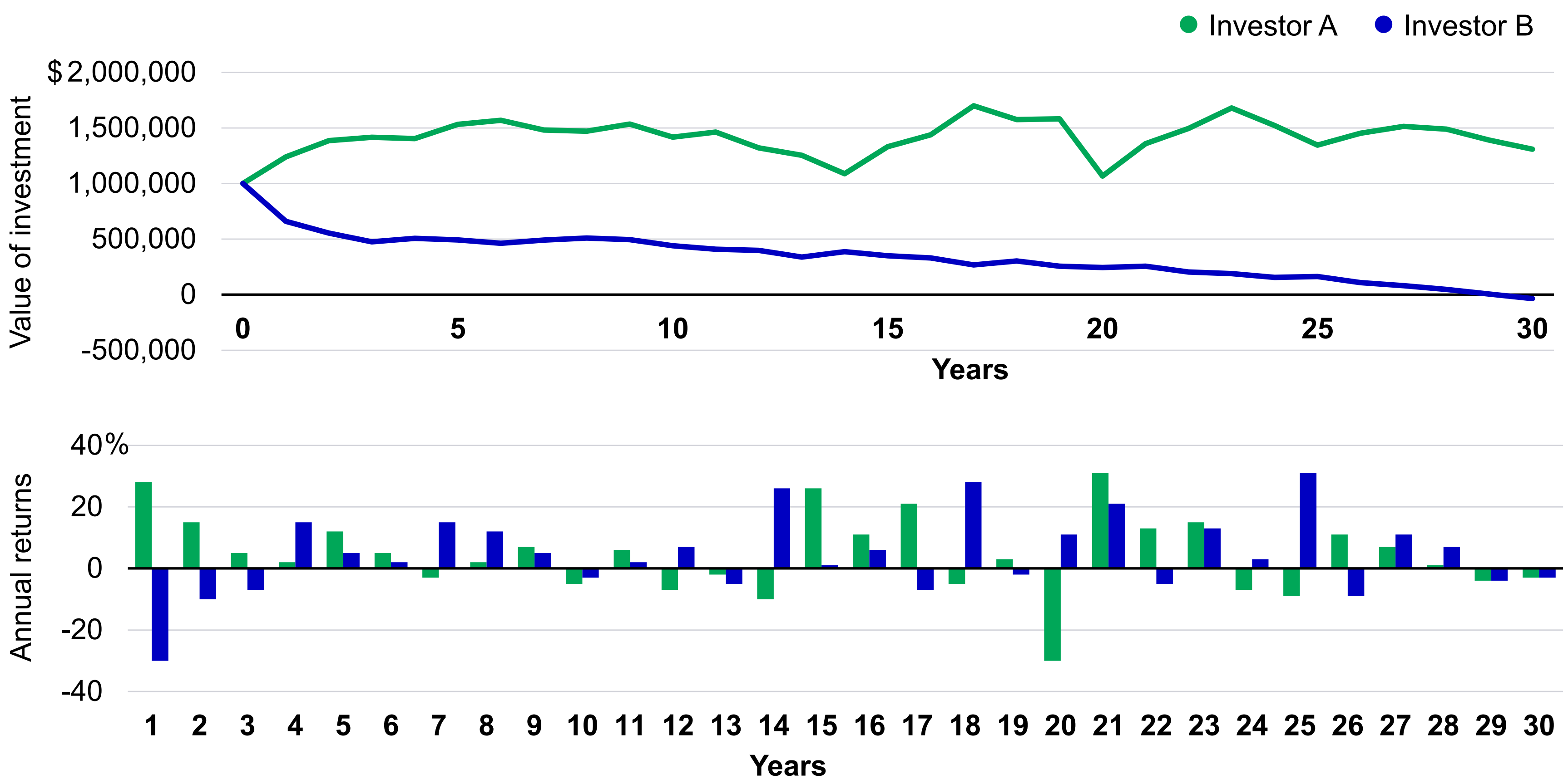


Source: John Hancock Investment Management, as of 12/31/2021. Standard deviation is a statistical measure of the historic volatility of a portfolio. It measures the fluctuation of a fund's periodic returns from the mean or average. The larger the deviation, the larger the standard deviation and the higher the risk. Beta measures the sensitivity of the fund to its benchmark. The beta of the market (as represented by the stated benchmark) is 1.00. Accordingly, a fund with a 1.10 beta is expected to have 10% more volatility than the market. 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. Allocation figures are rounded to the nearest whole number. Allocations less than 5% are not labeled within the charts.

Timing makes a difference

If you are heavily investing in equities and retire in a down year, your portfolio may never fully recover. Sequence of returns matter

Each investor earns an **average return of 5% per year**, and takes a 4% withdrawal per year based on the initial investment of $1 million



Source: This is a hypothetical example with hypothetical returns. This chart is for illustrative purposes only and does not represent the performance of any John Hancock fund. Diversification does not guarantee a profit or eliminate the risk of a loss. Past performance does not guarantee future results.

Principle 8

Active and passive strategies can play a role

Key terms – Active and passive management

Potential benefits and applications

Active	Passive
Professionally managed by a portfolio manager	Tracks an index (typically the S&P 500 or Dow Jones Industrial Average)
Goal is to outperform a benchmark	Goal is to perform in line with the index
Vehicles include: mutual funds, SMAs, active ETFs	Vehicles include: ETFs and index funds

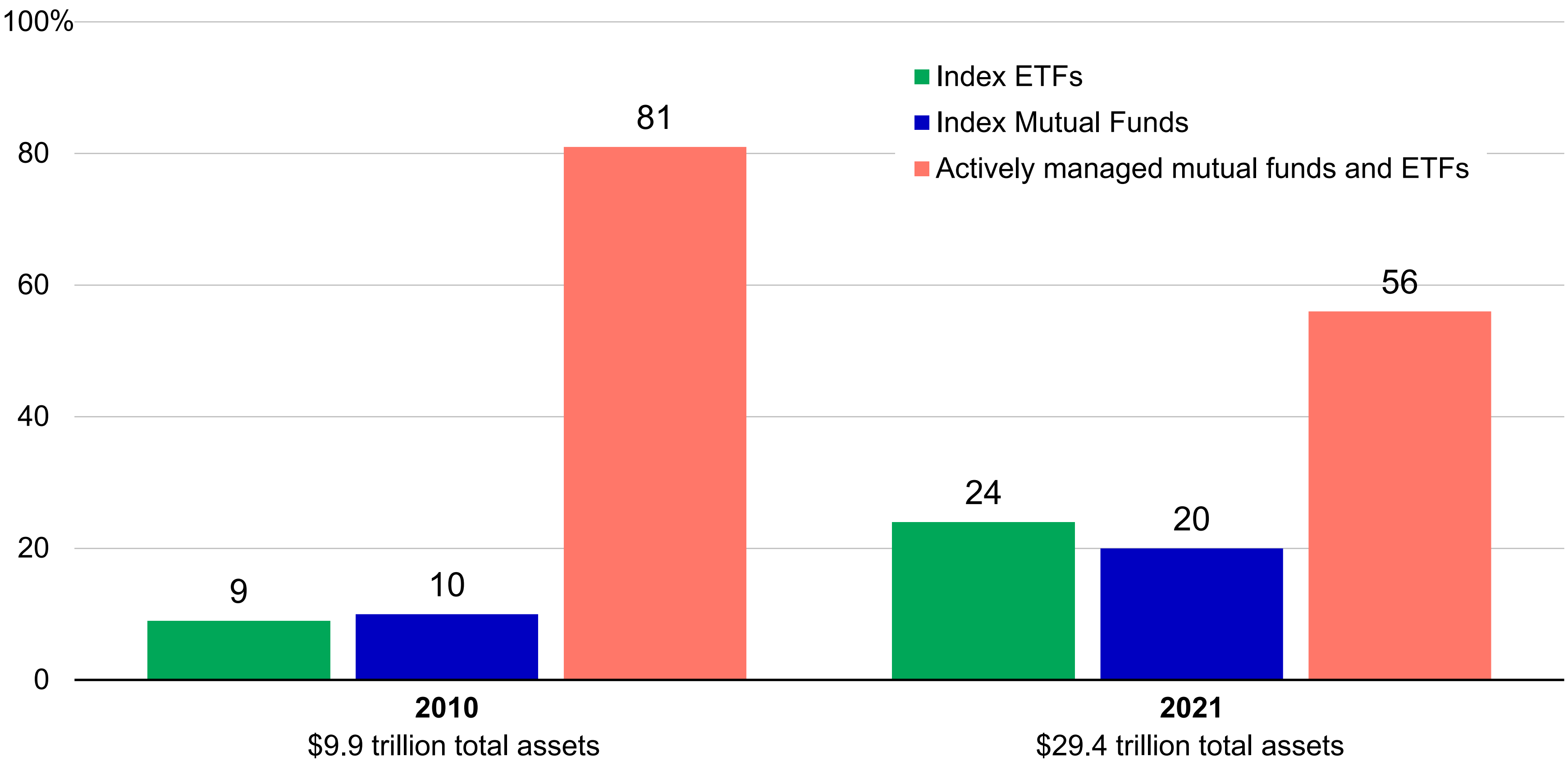
Investors can benefit from exposure to active and passive strategies

Potential benefits and applications of passive and active funds

Active funds	Passive funds
Active risk management	Low cost
Potential for outperformance	Transparent
Access to niche markets/strategies	No single person is the key to strategy
Noncorrelated sources of return	Simple way to achieve market exposure

Growth of passive investing (vs. active)

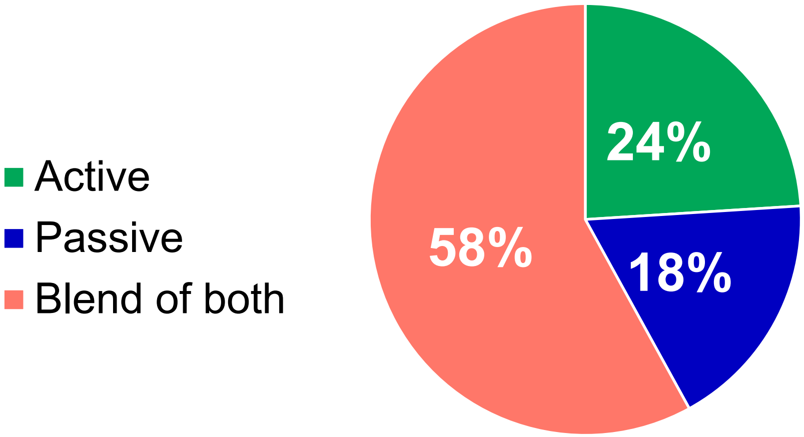
Passive investing in investment funds has obtained a much greater market share over the past 11 years



Source: *ICI Research Perspective*, Investment Company Institute, March 2022

Most advisors recommend a blend of both

"What type of management do you think provides the best overall investment performance, taking into account costs associated with each style?"



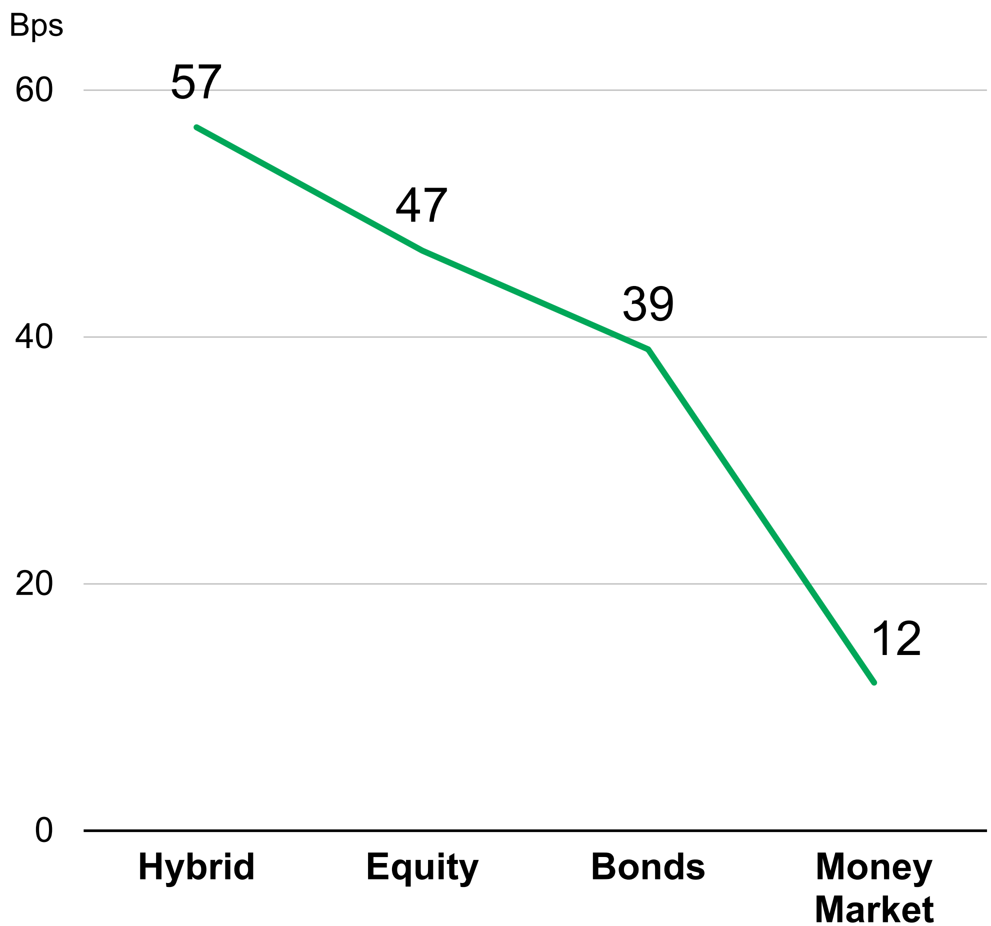
"**58%** of financial advisors recommend a blend of active and passive approaches for their clients."

~ Trends in Investing Survey, 2021
Journal of Financial Planning

Source: *Trends in Investing Survey, 2021* Journal of Financial Planning, FPA, ONRAMP.

Basics of Fund Expenses

Average expense ratios for mutual funds



An average expense ratio is:

- The percentage of the fund's total assets paid each year to cover the expenses of the fund
- This is the cost to fund investors to own units of the fund

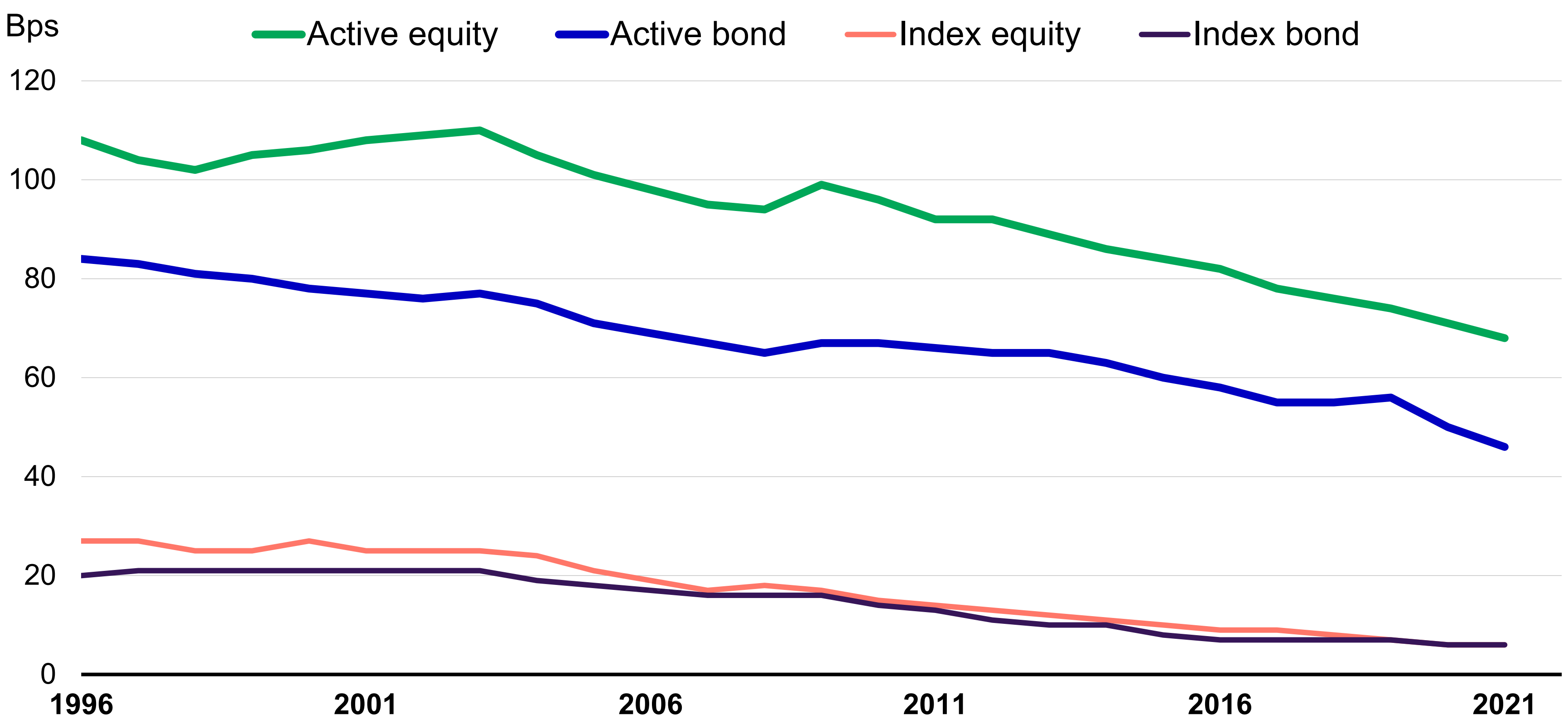
Composition of fees:

- **12b-1 fees** are those associated with selling and marketing the fund
- **Management fees** are paid for the portfolio management
- **Other fees** include accounting fees, transfer agent fees, administrative costs, legal fees and auditing fees

Source: *Trends in the Expenses and Fees of Funds, 2021*, ICI Research Perspective, Investment Company Institute, March 2022

Passive index investing has helped push down expenses across the board

Asset-weighted expense ratios of actively managed funds and index funds, 1996–2021



Source: *Trends in the Expenses and Fees of Funds*, 2021, ICI Research Perspective, Investment Company Institute, March 2022

Investors can benefit from exposure to active and passive strategies

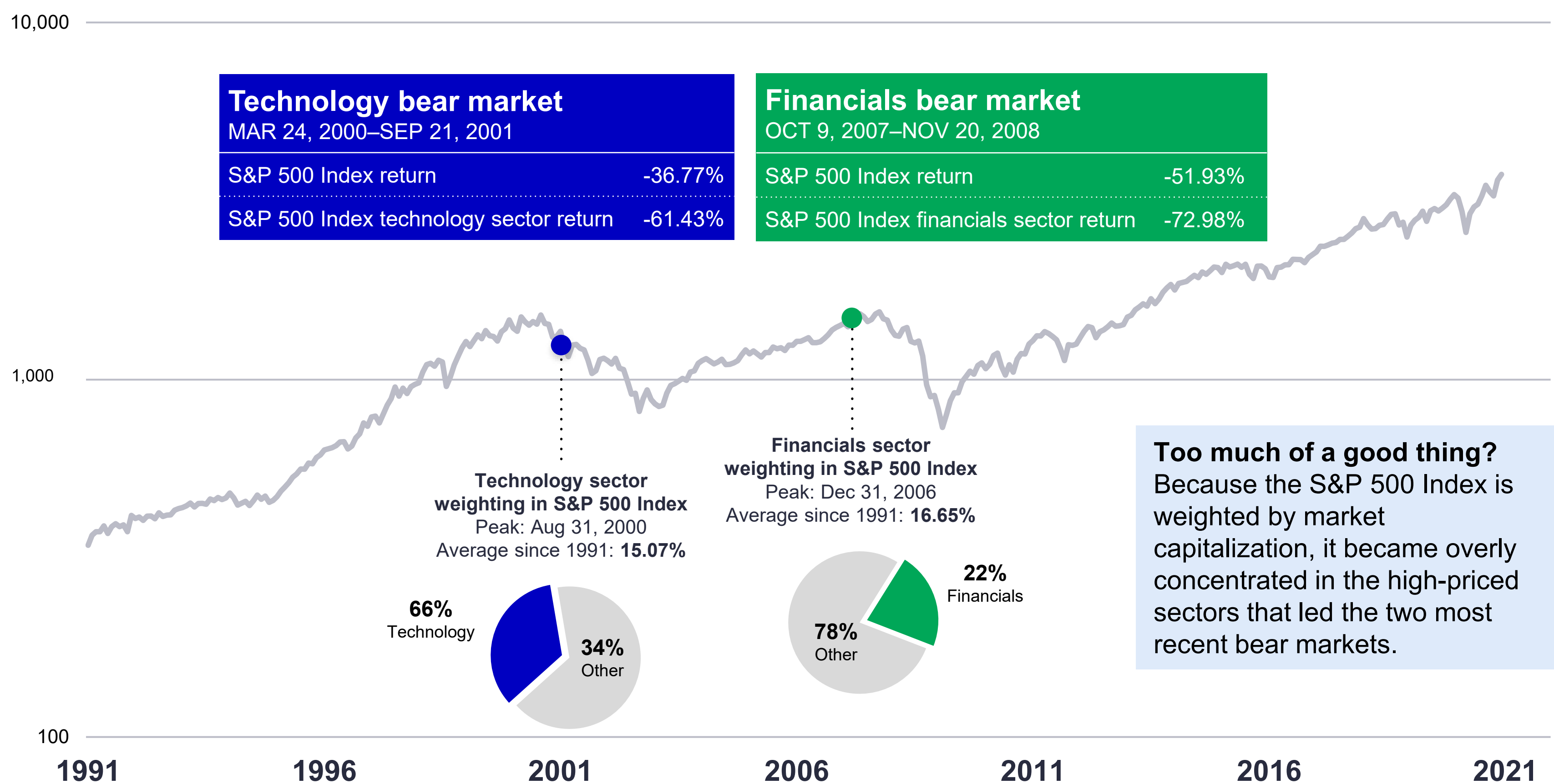
Potential benefits and applications of passive and active funds

Active funds	Passive funds
Active risk management	Low cost
Potential for outperformance	Transparent
Access to niche markets/strategies	No single person is the key to strategy
Noncorrelated sources of return	Simple way to achieve market exposure

Traditional indexes reward bigger over better

Market-cap-weighted indexes naturally overweight the largest stocks—often at the worst times

S&P 500 Index and sector weights before key bear markets

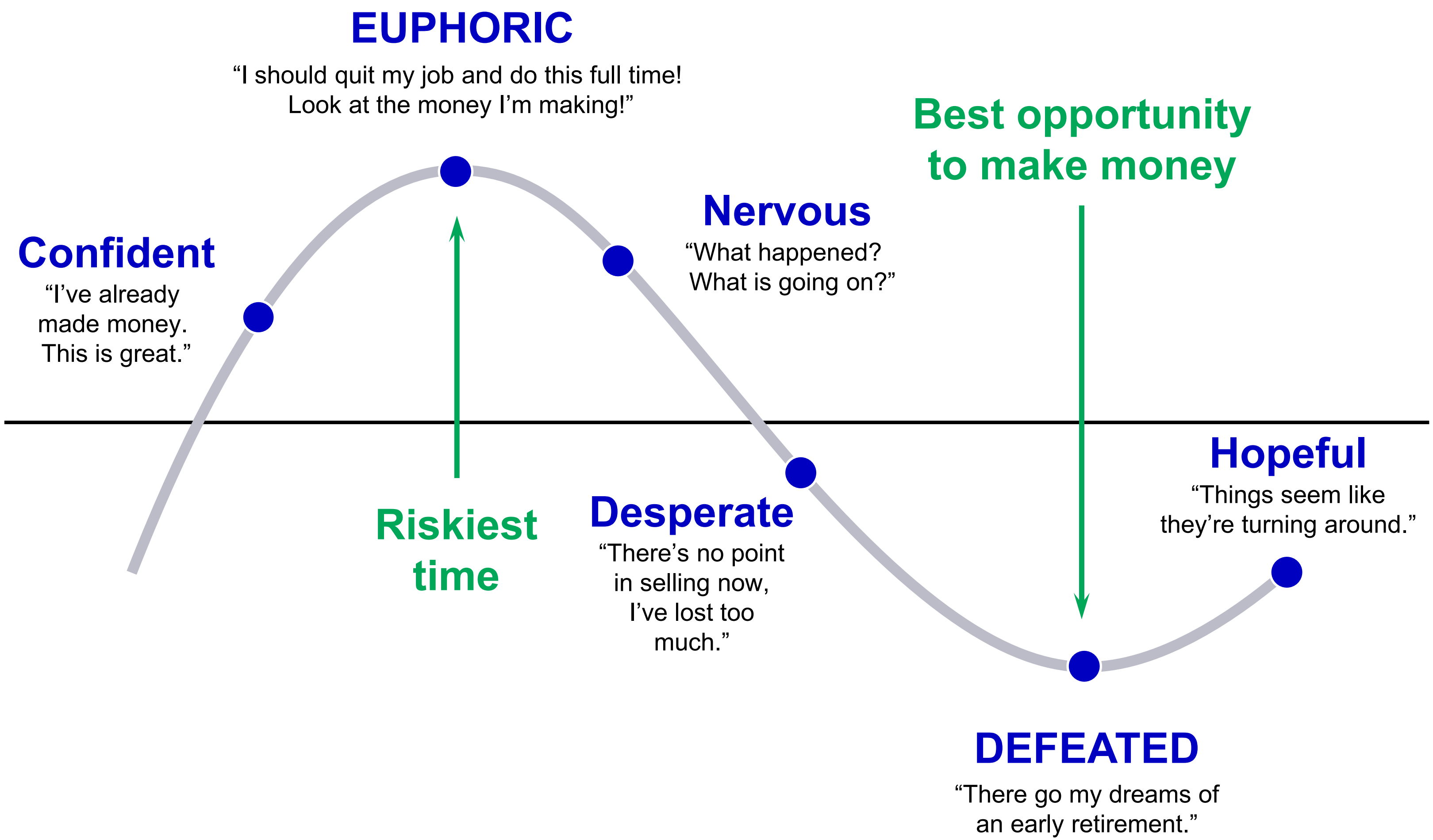


Source: Bloomberg, 2021. Data is based on the index composition of the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Principle 9

Emotions can be your worst enemy

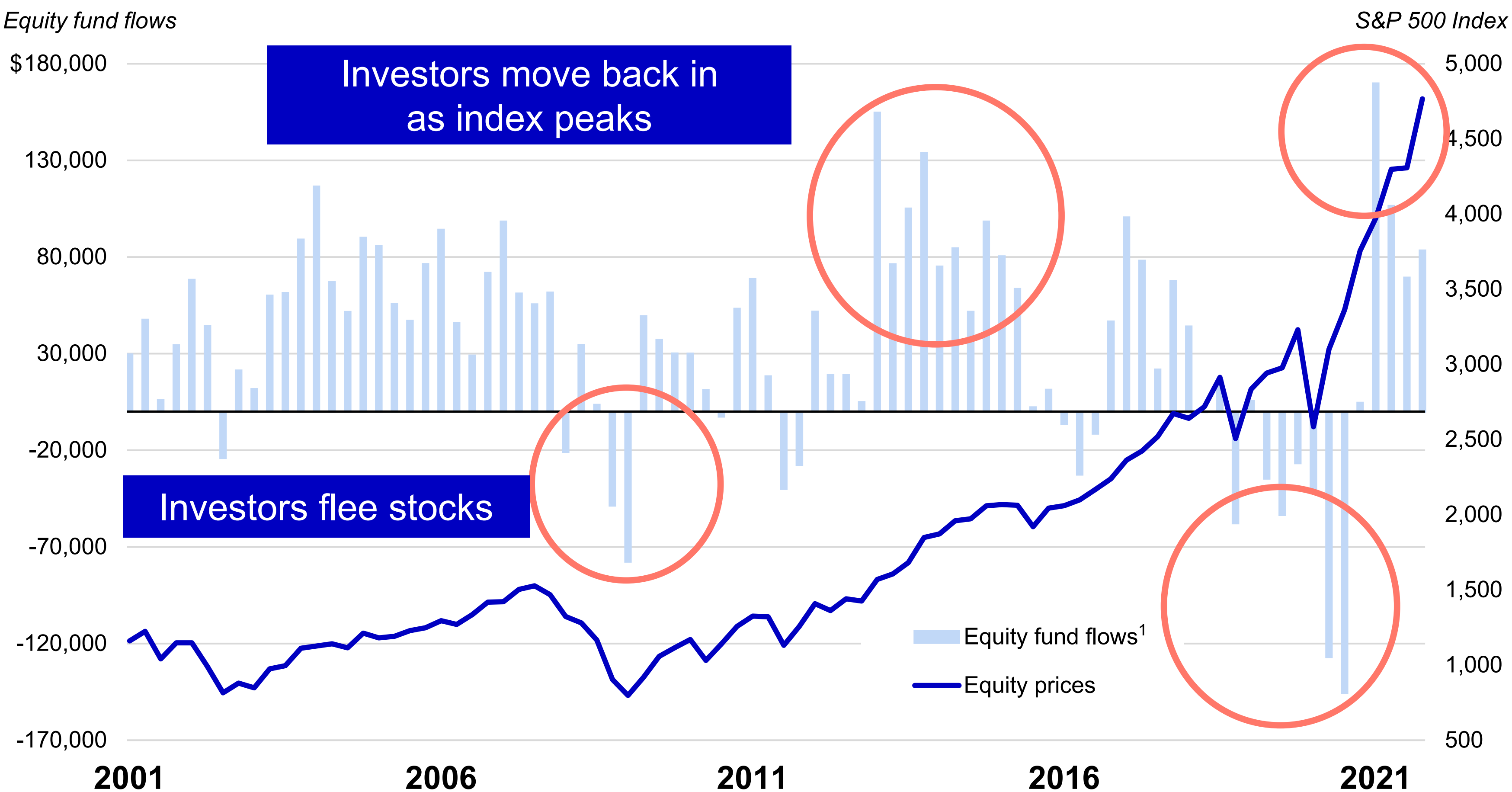
It’s natural to feel emotional about your investments



This hypothetical scenario is for illustrative purposes only and is not a prediction of future market conditions.

Emotions tend to make investors abandon and reenter stocks at the worst times

Net fund flows ($M), 2001-2021



Source: Morningstar, Bloomberg as of 12/31/2021. 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. ISS Market Intelligence, showing only the allocation, sector equity, U.S. equity, and international equity Morningstar groups, excluding fund of funds.

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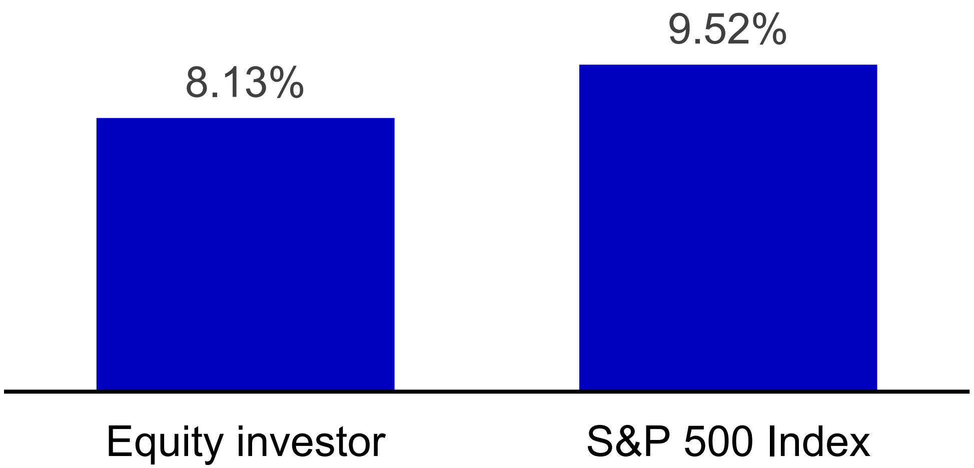
Chasing performance can lead to underperformance

Average annual returns, 2001–2021

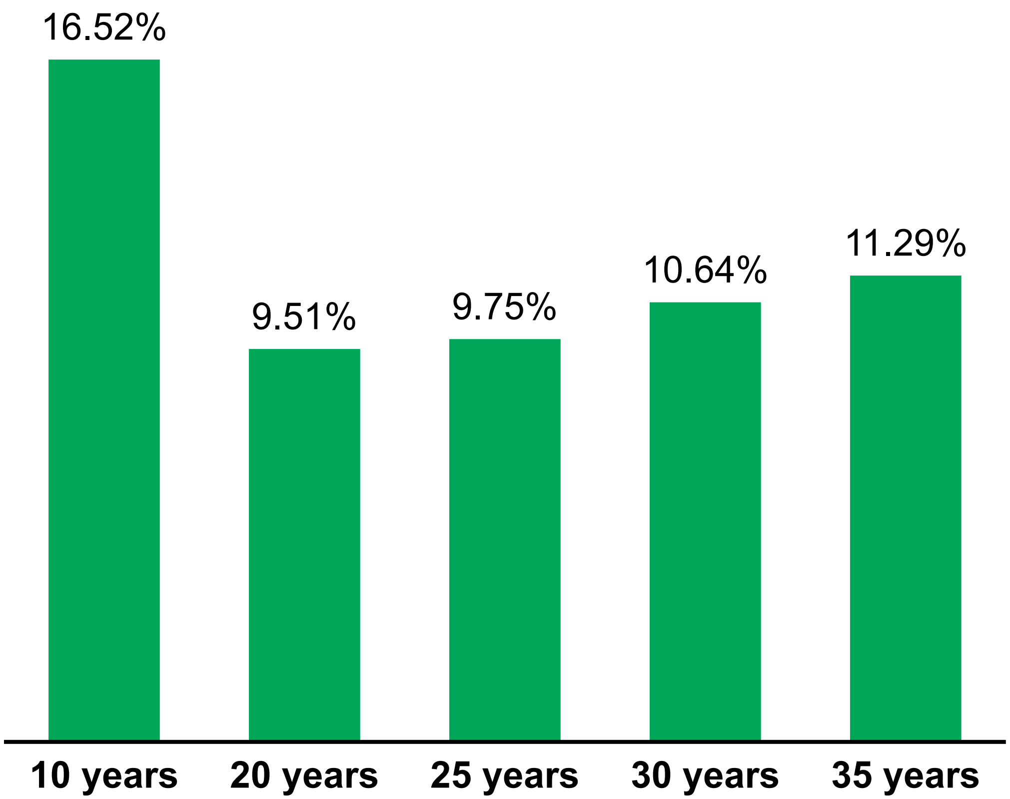
Equity investors held their funds for **only 4 years** on before switching



Source: *DALBAR's 2022 QAIB Report, Quantitative Analysis of Investor Behavior*, DALBAR, Inc., 2022. 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. This method of calculation captures realized and unrealized capital gains, dividends, interest, trading costs, sales charges, fees, expenses, and any other costs. 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.

What’s your investment horizon?

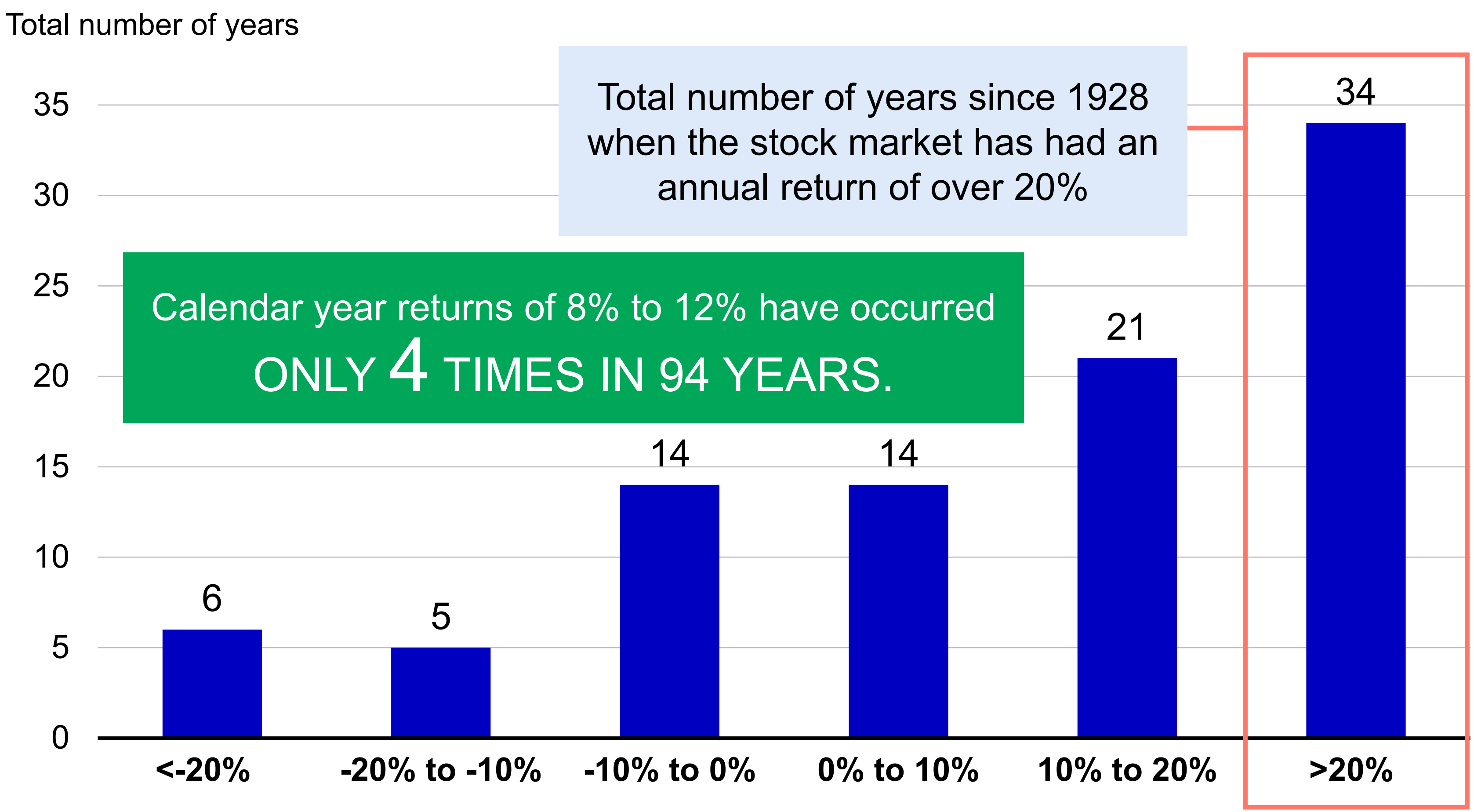
Annualized total returns over various time periods



Source: Bloomberg, 2021. Stocks are represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. Illustration does not include fees and if they were included, the total returns would be lower. Past performance does not guarantee future results.

Great years are not that uncommon

Performance of stocks since 1928



John Hancock Investment Management

Source: Bloomberg, as of 12/31/2021. Data is based on S&P 500 Index price annual returns including dividends. 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.

Principle 10

Your advisor is your greatest resource

Your financial advisor

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 yourself**

" We don't have to be smarter than the rest. We have to be more disciplined than the rest. "

-Warren Buffett
CEO of Berkshire Hathaway
Investor and Philanthropist

Source: *The Warren Buffett Way, 2005*

Q&A

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.

*A trusted brand" is based on a survey of 6651 respondents conducted by Medallia between 3/18/2020 to 5/13/2020.

Additional disclosure

Government bonds are represented by the Bloomberg Barclays U.S. Government Bond Index, which tracks the performance of U.S. Treasury and government agency bonds. Municipal bonds are represented by the Bloomberg Barclays Municipal Bond Index, which tracks the performance of the U.S. investment-grade tax-exempt bond market. Corporate bonds are represented by the Intercontinental Exchange (ICE) Bank of America (BofA) U.S. Corporate Master Index, which tracks the performance of publicly issued, fixed-rate, nonconvertible, investment-grade, U.S. dollar-denominated corporate debt having at least one year to maturity and an outstanding par value of at least US$250 million. High-yield corporate bonds are represented by the ICE BofA U.S. High Yield Master II Index, which tracks the performance of globally issued, U.S. dollar-denominated high-yield bonds. Foreign bonds are represented by FTSE World Government Bond ex-U.S. Index, which measures the performance of fixed-rate, local currency, investment-grade sovereign bonds, excluding the United States. Bank loans are represented by the Credit Suisse (CS) Leveraged Loan Index, which tracks returns in the U.S. dollar-denominated, non-investment-grade leveraged loan market. It is not possible to invest directly in an index.

Emerging-market debt is measured by the J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified Index, which tracks the performance of U.S. dollar-denominated Brady bonds, Eurobonds, and traded loans issued by sovereign and quasisovereign entities. The index caps its exposure to countries with larger amounts of outstanding debt. High yield is measured by the ICE BofA U.S. High Yield Master II Index, which tracks the performance of globally issued, U.S. dollar-denominated high-yield bonds. Mortgage backed is measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities Index, an unmanaged index comprising 15- and 30-year fixed-rate securities backed by the mortgage pools of Ginnie Mae, Freddie Mac, and Fannie Mae. Floating rate is measured by the Credit Suisse (CS) Leveraged Loan Index, which tracks the U.S. dollar-denominated, non-investment-grade leveraged loan market. Short-term credit is measured by the Bloomberg Barclays 1–5 Year U.S. Credit Index, which tracks the performance of investment-grade U.S. corporate and government-related bonds with maturities between one and five years. Cash is represented by the three-month U.S. Treasury bill, published by the U.S. Federal Reserve. Foreign bonds are represented by the FTSE World Government Bond ex-U.S. Index, which measures the performance of fixed-rate, local currency, investment-grade sovereign bonds. Investment-grade corporate bonds (IG corporates) are measured by the Bloomberg Barclays U.S. Corporate Bond Index, which tracks the investment-grade, fixed-rate, taxable corporate bond market. 10-year U.S. Treasuries are measured by the ICE BofA 10-year U.S. Treasury Index, a one-security index, rebalanced monthly, comprising the most recently issued 10-year U.S. Treasury note. International small-cap stocks and international large-cap stocks are represented by the MSCI EAFE SMID Cap, which tracks the performance of publicly traded small- and mid-cap (SMID) stocks of companies in those regions, and the MSCI Europe, Australasia, and Far East (EAFE) Index, which tracks the performance of publicly traded large- and mid-cap stocks of companies in those regions. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Additional disclosure

Global REITs are represented by the FTSE NAREIT All REITs Index, a market-capitalization-weighted index that includes all tax-qualified real estate investment trusts (REITs). Emerging-market bonds are represented by the J.P. Morgan Emerging Markets Bond Index (EMBI) Global Index, a market-capitalization-weighted index that tracks the performance of U.S. dollar-denominated Brady bonds, Eurobonds, and traded loans issued by sovereign and quasisovereign entities. Relative value is represented by the HFRI Relative Value Index, which maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Emerging-market stocks are represented by the MSCI Emerging Markets Investable Market Index, which tracks equity market performance in the global emerging markets. Gold is represented by the Morningstar Gold Commodity Index, a subset of the Morningstar Commodities Index. Macro strategies are represented by the HFRI Macro Index, which involves investing by making leveraged bets on anticipated price movements of stock markets, interest rates, foreign exchange, and physical commodities. Merger arbitrage is represented by the HFRI Merger Arbitrage Index, sometimes called risk arbitrage, which involves investment in event-driven situations such as leveraged buyouts, mergers, and hostile takeovers. Commodities are represented by the Morningstar Commodities Index, a broadly representative benchmark of commodities traded through futures contracts on U.S. exchanges. Market neutral is represented by the HFRI Equity Market Neutral Index, which seeks to profit by exploiting pricing inefficiencies between related equity securities, neutralizing exposure to market risk by combining long and short positions. Diversified alternatives portfolio is an equal weighting of all of the above indexes. Diversification does not guarantee a profit or eliminate the risk of a loss. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Correlation is a statistical measure that describes how investments move in relation to each other, which ranges from –1.0 to 1.0. The closer the number is to 1.0 or –1.0, the more closely the two investments are related.

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 FTSE 3-Month U.S. Treasury Bill Index, which tracks the performance of the most recent three-month U.S. Treasury debt. International equity is represented by the MSCI All Country World Index (ACWI) ex-U.S. Index, which tracks the performance of publicly traded large- and mid-cap stocks of companies in 22 developed markets and 23 emerging markets. 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. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Additional disclosure

Large cap is represented by the S&P 500 Index, which tracks the performance of 500 of the largest publicly traded companies in the United States. International is represented by the MSCI Europe, Australasia, and Far East (EAFE) Index, which tracks the performance of publicly traded large- and mid-cap stocks of companies in those regions. Long-term government is represented by the Bloomberg Barclays U.S. Government Bond Index, which tracks the performance of U.S. Treasury and government agency bonds. Global bonds are represented by the FTSE World Government Bond ex-U.S. Index, which measures the performance of fixed-rate, local currency, investment-grade sovereign bonds, excluding the United States. Treasury Inflation-Protected Securities (TIPS) are represented by the Morningstar inflation-protected bond fund category average. High yield is represented by the Morningstar high-yield bond fund category average. Loans are represented by the Morningstar bank loan fund category average. U.S. real estate is represented by the Wilshire U.S. Real Estate Securities Index, which tracks U.S. publicly traded real estate securities. Natural resources are represented by the Morningstar natural resources fund category average. Global real estate is represented by the Morningstar global real estate fund category average. International small cap is represented by the Morningstar foreign small/mid growth fund category average. Emerging markets are represented by the MSCI Emerging Markets Index, which tracks the performance of publicly traded large- and mid-cap emerging-market stocks. Currency is represented by the Morningstar multicurrency fund category average. It is not possible to invest directly in an index. Past performance does not guarantee future results.

The Bloomberg Barclays Treasury Bill Index tracks the performance of public obligations of the U.S. Treasury. It is not possible to invest directly in an index.

The MSCI All Country World Index (ACWI) tracks the performance of publicly traded large- and mid-cap stocks of companies in both developed and emerging markets. It is not possible to invest directly in an index.

The Russell 1000 Growth Index tracks the performance of publicly traded large-cap companies in the United States with higher price-to-book ratios and higher forecasted growth values. It is not possible to invest directly in an index.

The Russell Midcap Value Index tracks the performance of publicly traded mid-cap companies in the United States with lower price-to-book ratios and lower forecasted growth values. It is not possible to invest directly in an index.

The Russell Midcap Growth Index tracks the performance of publicly traded mid-cap companies in the United States with higher price-to-book ratios and higher forecasted growth values. It is not possible to invest directly in an index.

The Russell 2000 Value Index tracks the performance of publicly traded small-cap companies in the United States with lower price-to-book ratios and lower forecasted growth values. It is not possible to invest directly in an index.

The Russell 2000 Growth Index tracks the performance of publicly traded small-cap companies in the United States with higher price-to-book ratios and higher forecasted growth values. It is not possible to invest directly in an index.

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