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Are Not FDIC Insured	May Lose Value	Are Not Bank Guaranteed		
Are Not Insured by Any Federal Government Agency	Are Not Deposits	Are Not a Condition to Any Banking Service or Activity		

Welcome to "My brain made me do it"

Today, you'll have an opportunity to:

Investigate how we typically make decisions

Understand how our decision-making process contributes to common investment mistakes

Learn how to train our brains to avoid those mistakes



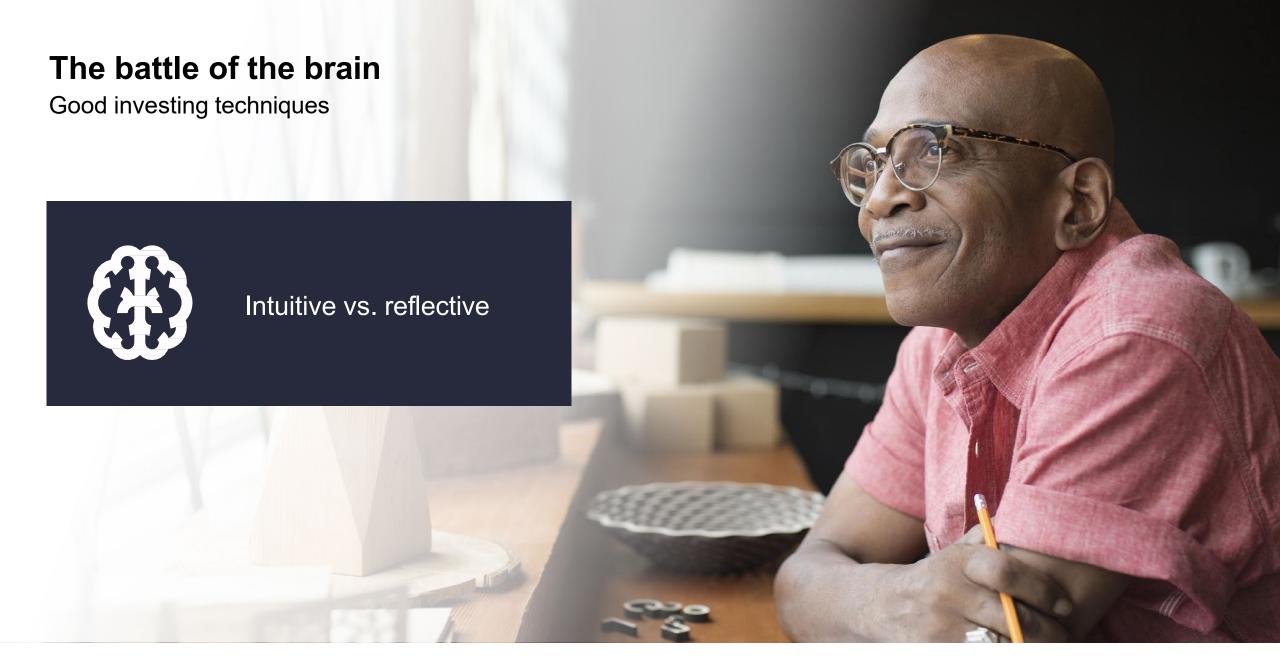
Pop quiz

Fill in the blanks



The fundamental principle of investing





Two schools of economics



Old school: classical economics

Investors are rational people who have self-control

New school: behavioral economics

Investors are not logical and are undisciplined

How to train your brain

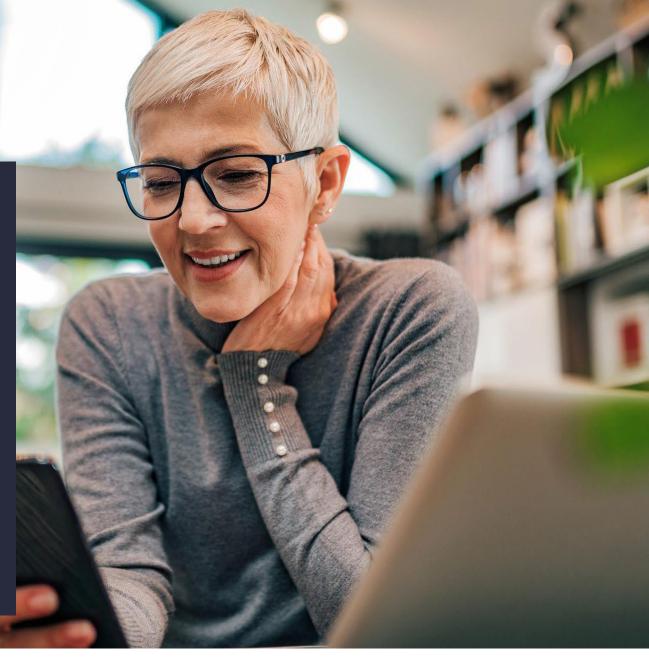
We want quick and easy decisions

When dealing with your dollars, do you really want quick and easy?



A new mindset is needed to overcome human nature







Six common investing mistakes

- Loss aversion
- 2 Anchoring
- 3 Status quo bias
- 4. Procrastination
- 5 Hindsight bias
- 6 Availability





Mistake 1: loss aversion

Emotional bias

People's tendency to strongly prefer avoiding losses over acquiring gains

- The psychological impact of a loss can be twice as powerful as the impact of a gain
- Leads to poor investment choices



Warning signs

"I can't sell now—it's down too far. It will come back eventually."

"I don't mind staying in cash — the markets have been crazy lately! I'd rather be safe."

Sound familiar?



How to remedy loss aversion

Don't just be prepared for market volatility — **expect it**

Involve impartial people

Create a disciplined plan — and stick to it!

Develop an emergency fund

Establish a dollar-cost-averaging plan*

* Dollar cost averaging does not assure a profit or protect against loss in a declining market. Such a plan involves continuous investment in securities regardless of fluctuating price levels. An investor should consider his/her financial ability to continue purchases through periods of low prices. Most investments generally fluctuate according to market conditions. Past performance does not guarantee future results.



Mistake 2: anchoring

Cognitive bias

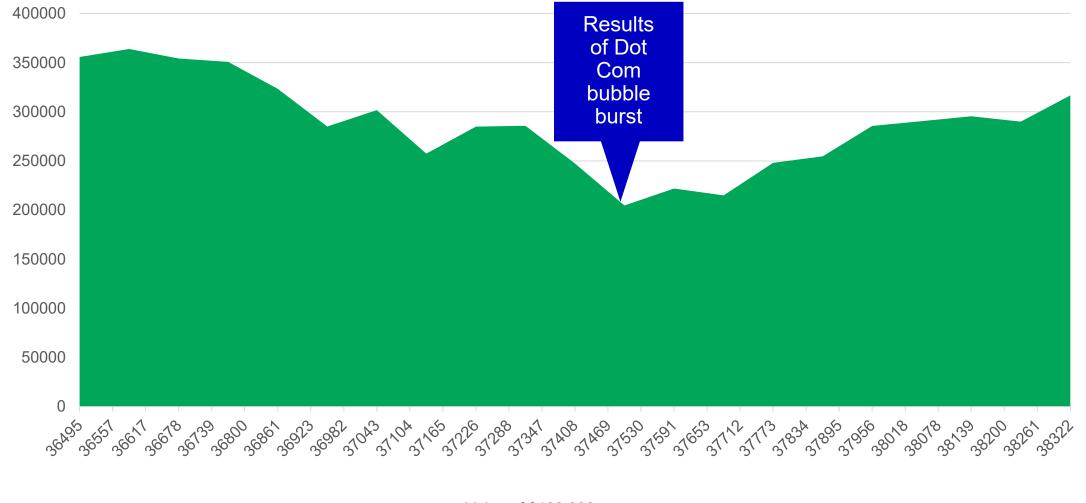
Anchoring is how well you can concentrate and focus

There's a common human tendency to rely too heavily, or anchor, on one trait or piece of information when making decisions



Change your anchors

S&P 500 Index, 1999-2004

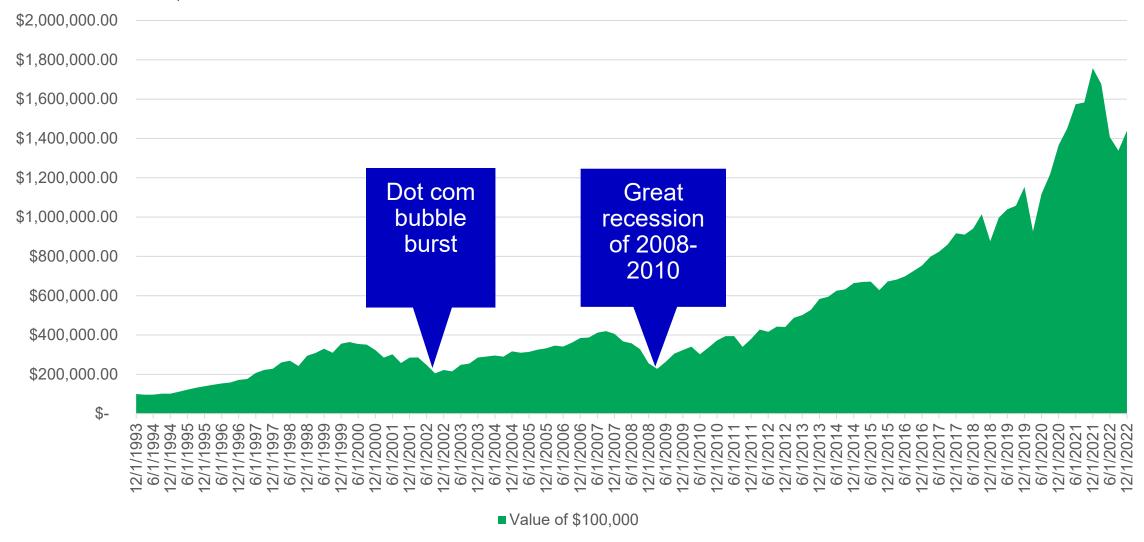






Change your anchors

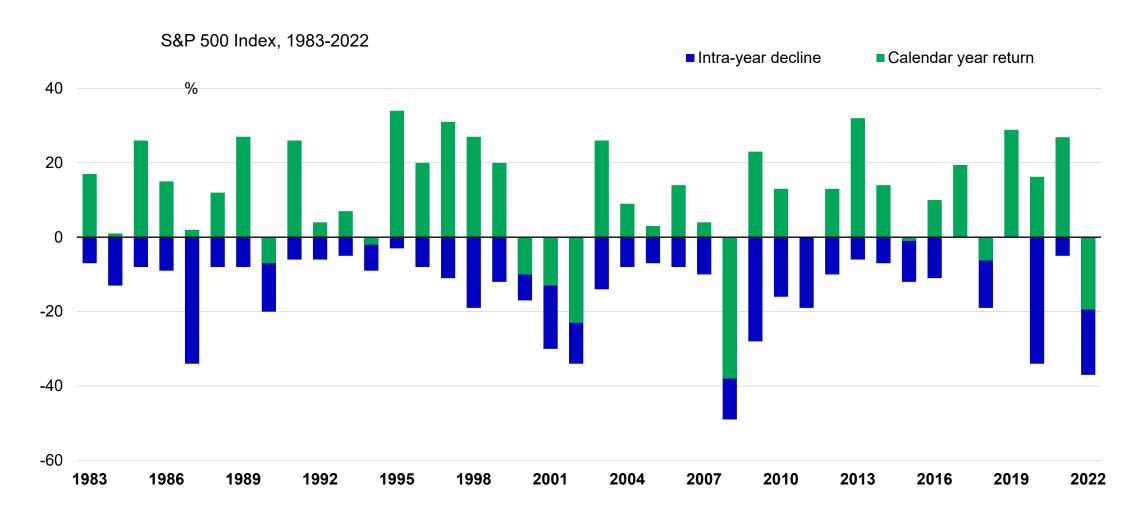
S&P 500 Index, 1993-2022





Intra-year corrections are normal

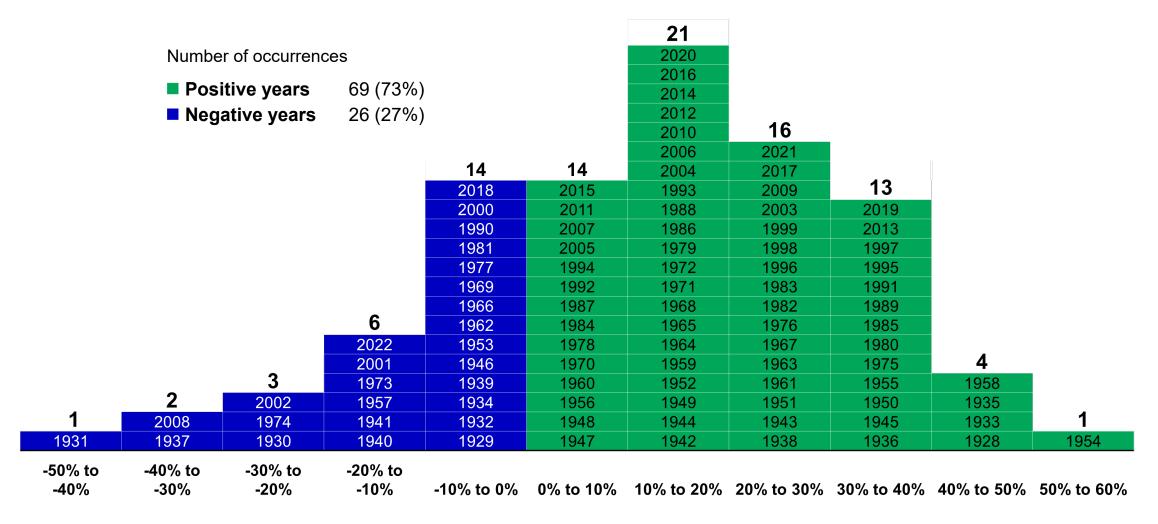
The market will often experience setbacks before moving higher





In any given year, returns may be negative

Distribution of annual returns, S&P 500 Index, 1928–2022





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

Rolling 10-year stock market returns, 1928–2022

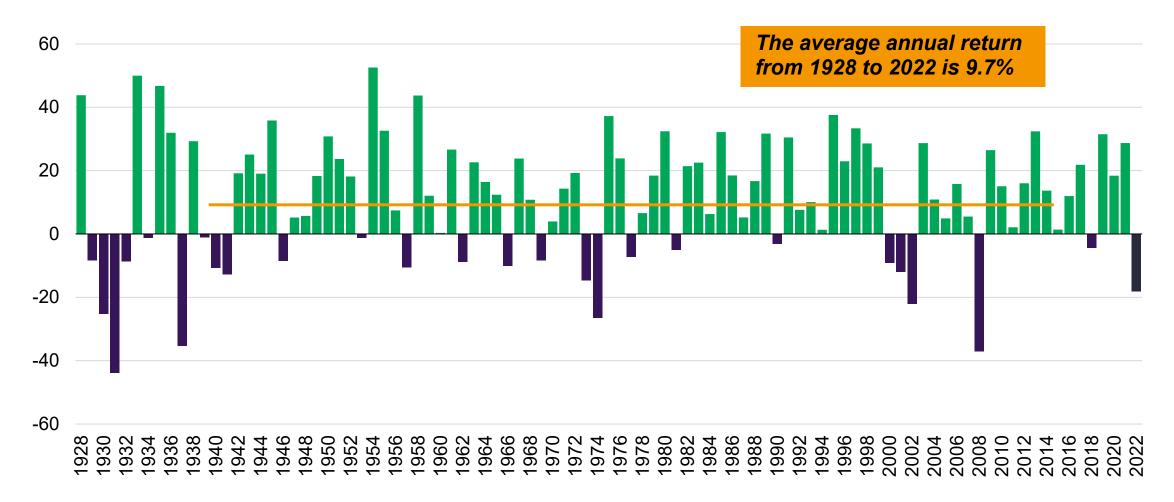
Number of occurrences

	Positive yearsNegative years		81 (94%)							
			5 (6%)	14					14	
				2016	13		13		2021	
				2015	2017		2022		2000	
				2014	2006		2020		1992	
				2013	2005		2019		1991	
				2012	2002		2018		1989	
				1982	1980		2004		1988	
				1981	1972		2001	7	1963	
				1976	1970		1990	1996	1961	6
5		5		1973	1968		1986	1995	1960	1999
2009		2011		1971	1966		1967	1994	1957	1998
2008	3	1978	3	1969	1949	3	1964	1993	1955	1997
1939	2010	1977	2007	1948	1947	2003	1962	1987	1954	1959
1938	1974	1975	1979	1945	1944	1983	1953	1985	1952	1958
1937	1940	1946	1941	1943	1942	1965	1950	1984	1951	1956
<0%	0% to 2%	2% to 4%	4% to 6%	6% to 8%	8% to 10%	10% to 12%	12% to 14%	14% to 16%	16% to 18%	>18%



It is a market of extremes

S&P 500 Index calendar year returns, 1928–2022 (%)



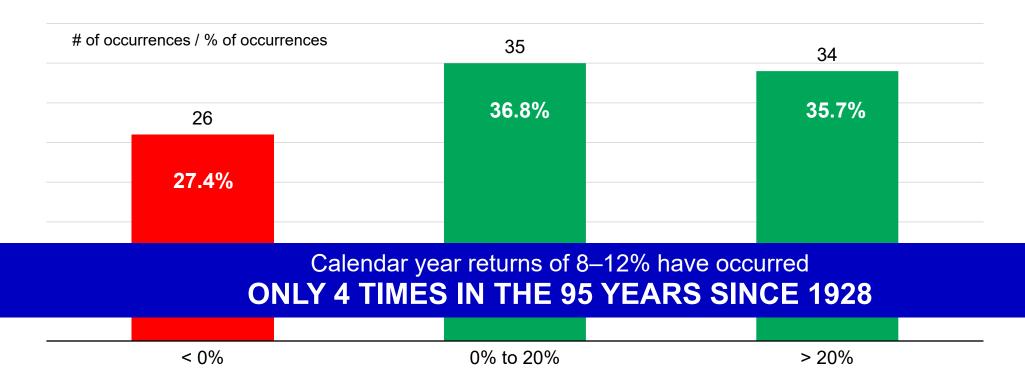


Source: Calculated by John Hancock Funds, LLC using information and data presented in Morningstar Direct. All rights reserved. Used with permission. Based on average annual percentage returns for the S&P 500 Index over 94 one-year periods from 1928-2022, assuming reinvestment of dividends and capital gains. 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 is no quarantee of future results.

There is nothing average about returns

1928-2022

What's the most common occurrence in the stock market in a calendar year?





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Warning signs

"I'm still down 10%. I just want to get back to where I started."

"Six months ago, I had \$XXX, and now I have half that amount."

Have you ever said this?



How to remedy anchoring

Keep an open mind

Seek out information to give you perspective

Change your anchors

Let **progress** toward your goals be your benchmark



Mistake 3: status quo bias

Cognitive bias

People tend not to change an established behavior unless the incentive to change is compelling

- It's easier to do nothing
- Creatures of routine

Your initial portfolio allocation is tremendously important, as it has enduring impact.



Warning signs

"I've had that investment for years, and it's been good.

No need to change it now."

"More than half of my portfolio is invested in my company's stock. I've heard that's not such a good idea, but I don't know where else to invest."

What can you do about it?



How to remedy status quo bias

Make a **schedule**

Revisit your plan at **regular intervals**

Involve others and hold yourself accountable

Learn what motivates you

Reward yourself for progress toward your goals



Mistake 4: procrastination

Emotional bias

Procrastination

- Positive bias toward the present
- Anxiety when starting a complex task
- People want to relax today and invest (or do anything) next week

Fruit or chocolate?



Warning signs

"I really should join my company's retirement plan.
I'll get to it next week."

"Our child just turned 10. We really should open a 529 account one of these days."

What can you do about it?



How to remedy procrastination

Make a **schedule**

Revisit your plan at **regular intervals**

Involve others and hold yourself accountable

Learn what motivates you

Reward yourself for progress toward your goals



Mistake 5: hindsight bias

Emotional bias

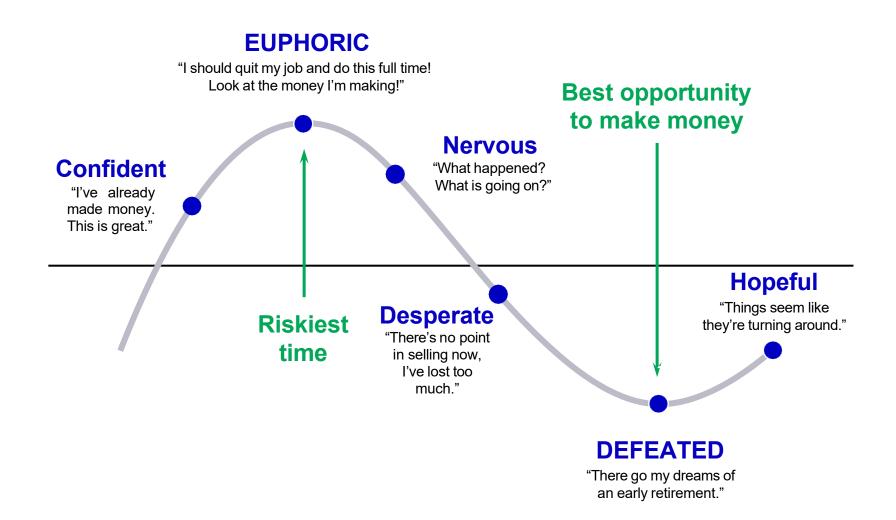
Hindsight — locking the barn door after the horse has run away

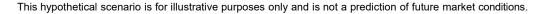
- · Taking action after it's too late
- The mortgage meltdown, banks tightening credit
- Past performance does not guarantee future results

It's why people start to eat right and exercise after a health scare.



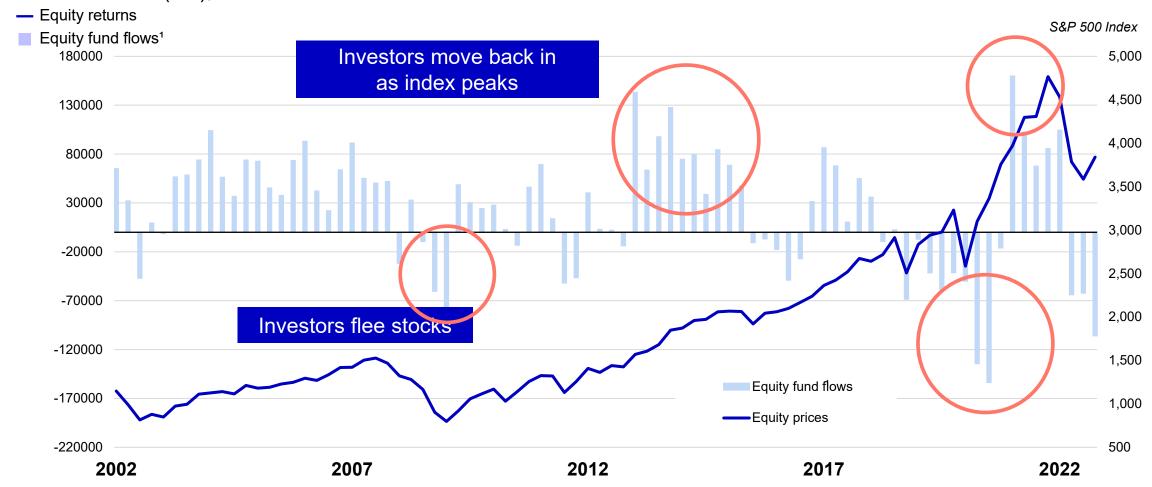
It's natural to feel emotional about your investments





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

Net fund flows (\$M), 2002-2022



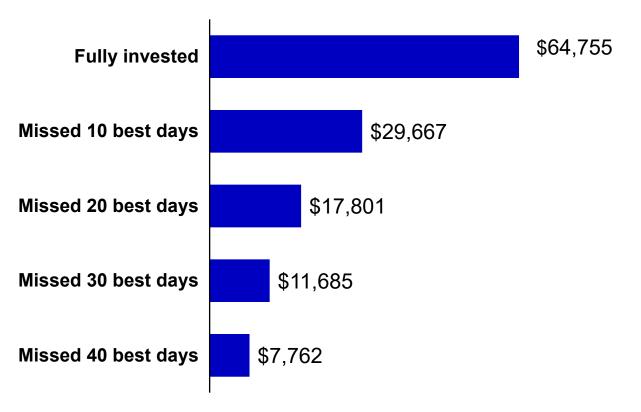
Source: Bloomberg as of 12/31/2022. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. Past performance does not guarantee future results.

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.



The key is not missing the market's best days

20-year growth of \$10,000, 2002–2022



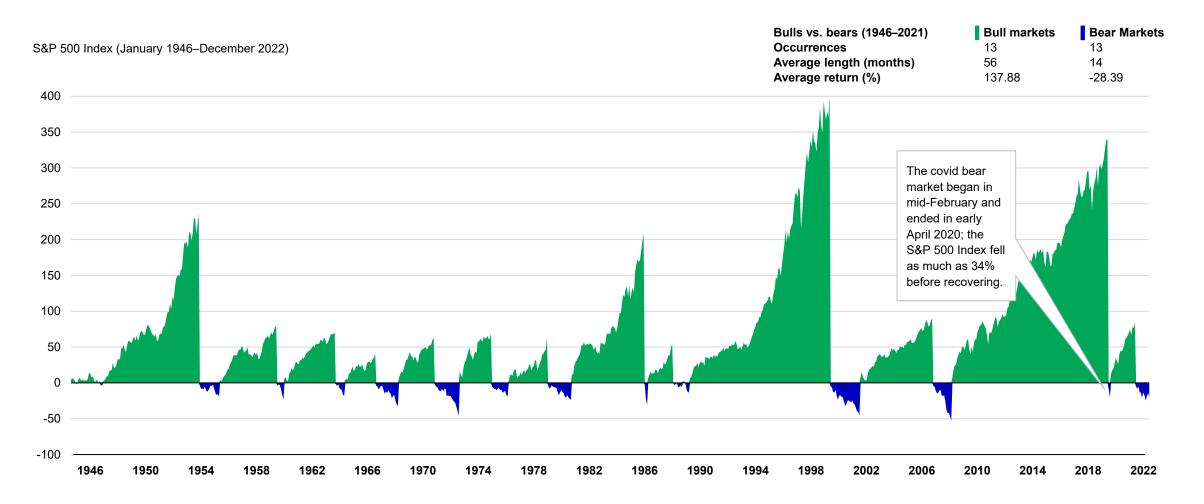
Source: Bloomberg, as of 12/31/2022. This table is for illustrative purposes only. The S&P 500 Index tracks the performance of 500 of the largest publicly traded companies in the United States. It is not possible to invest directly in an index. This is a hypothetical example and does not reflect the performance of any John Hancock fund. Past performance does not guarantee future results.





U.S. equities have historically recovered

Bull markets have outlasted bear markets for more than 70 years (%)



Source: Standard & Poor's, as of 12/31/22. 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.



Warning signs

"I don't care what happens next. I'm moving to cash until things calm down."

"The market has done great this year. I knew I should have invested more."

Next steps?



How to remedy hindsight bias

Remember that you did the best you could with the information you had

Review your plan to make sure it still works for you

Keep a long-term perspective

Write a letter to yourself



One way to remedy hindsight bias

"My financial professional and I have established a long-term plan. Sometime in the future, the market will correct to the point where I feel uncomfortable staying invested. I may feel scared and ask my advisor to get me out of the market.

But I know that my plan is sound and, if anything, it may be a good time to invest more. My long-term goals haven't changed and I'm committed to sticking to my long-term plan."



Mistake 6: availability

Cognitive bias

People's tendency to use information that's on hand to make decisions

- The prevalence of media coverage reinforces availability
- Results in overestimating the probability of an event because it's associated with a previous memory



Warning signs

"I see people with iPads everywhere. Apple must be a good stock to own."

"This guy on TV says now is the time to buy gold. He must be right—he's on TV!"

Have you said something like this?



How to remedy availability

Don't believe everything you hear!

Remember, **bad news sells** newspapers

Experts (and your neighbors and friends) can be wrong

Systematic investing works in up and down markets



What have we learned?

We're programmed to think intuitively

When it comes to money, you should be thinking reflectively

A new mindset is needed to overcome human nature

It helps to have a plan and a person you can trust to help you implement your plan



Strategies to consider



- Write down your plan and refer back to it
- Establish what steps you will take in a crisis when you are not in a crisis
- Start dollar cost averaging*
- Expect that your portfolio will go down at times
- Make appointments with your financial professional well in advance and on a regular schedule

* Dollar cost averaging does not assure a profit or protect against loss in a declining market. Such a plan involves continuous investment in securities regardless of fluctuating price levels. An investor should consider his/her financial ability to continue purchases through periods of low prices. Most investments generally fluctuate according to market conditions. Past performance does not guarantee future

John Hancock Investment Management

Today, in "My brain made me do it," we learned:

How we typically make decisions

How our decision-making process contributes to common investment mistakes

How to train our brains to avoid those mistakes

Contact your financial professional today—
don't procrastinate!



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