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AND FINANCE

EQUITY MARKET TURMOIL

FINDING OPPORTUNITIES WHILE MITIGATING RISK

YOUR FACILITATOR

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Markets Tumble into Bear Market

1

Historical Perspective on Sell-offs

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Policy Response

3

Uncertain Outlook

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Investing Amidst Uncertainty

5

AGENDA

EQUITY MARKET TURMOIL

FINDING OPPORTUNITIES WHILE MITIGATING RISK

SECTION 1

MARKETS TUMBLE INTO BEAR MARKET



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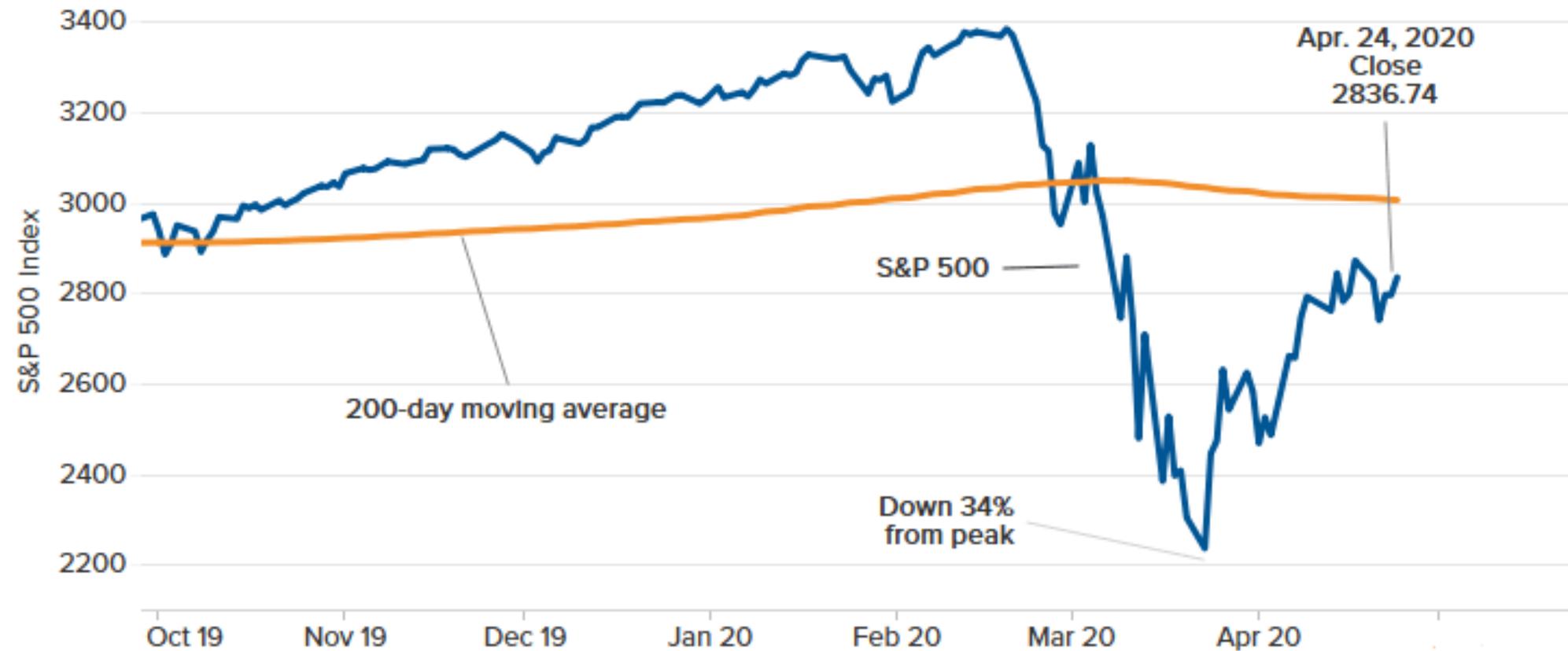
SELL OFF

PANDEMIC PROMPTS HISTORIC CRASH

- The equity market downturn during the first quarter was the quickest selloff in history
- In the U.S., the market fell **-33.9%** in just 24 days, over **10 times** faster than the 2008 correction
- Global equity markets plunged into bear market territory faster than ever before
- The combination of a public health disaster and the ensuing macroeconomic shock inflicted a severe blow to stocks

SELL OFF

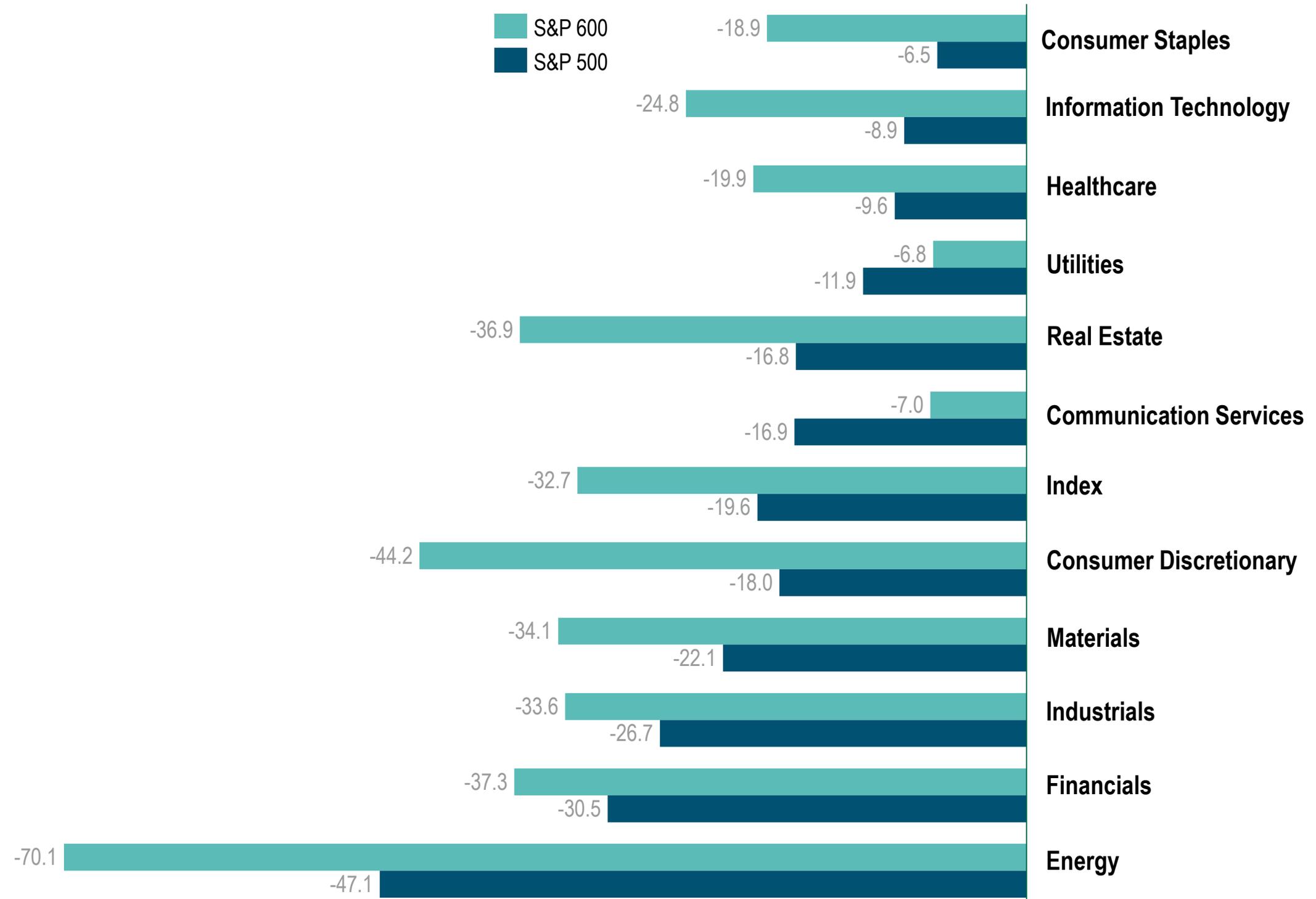
Looking for a bottom



SOURCE: FactSet



SMALL CAPS UNDERPERFORM



Source: S&P

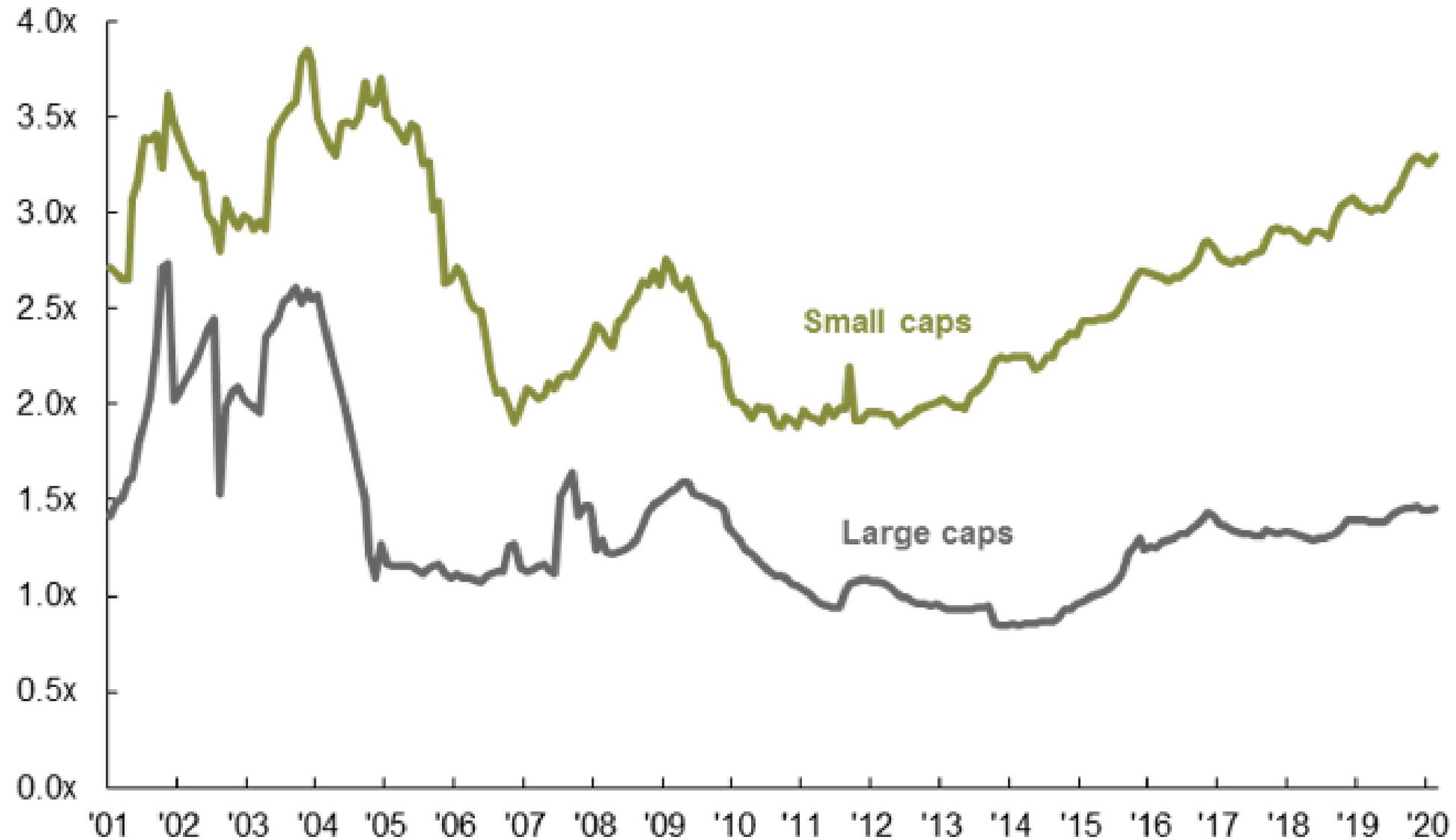
SELL OFF

WHY DO SMALL CAPS UNDERPERFORM?

- Companies in the small-cap category tend to be more sensitive to economic downturns than their larger peers
- This missed out on the S&P 500's march to records throughout 2019 and early 2020 as investors worried about economic expansion and the impact of the U.S.-China trade war
- Fears of economic disruption caused by the pandemic resulted in a 20% performance differential between small-cap and large-cap stocks

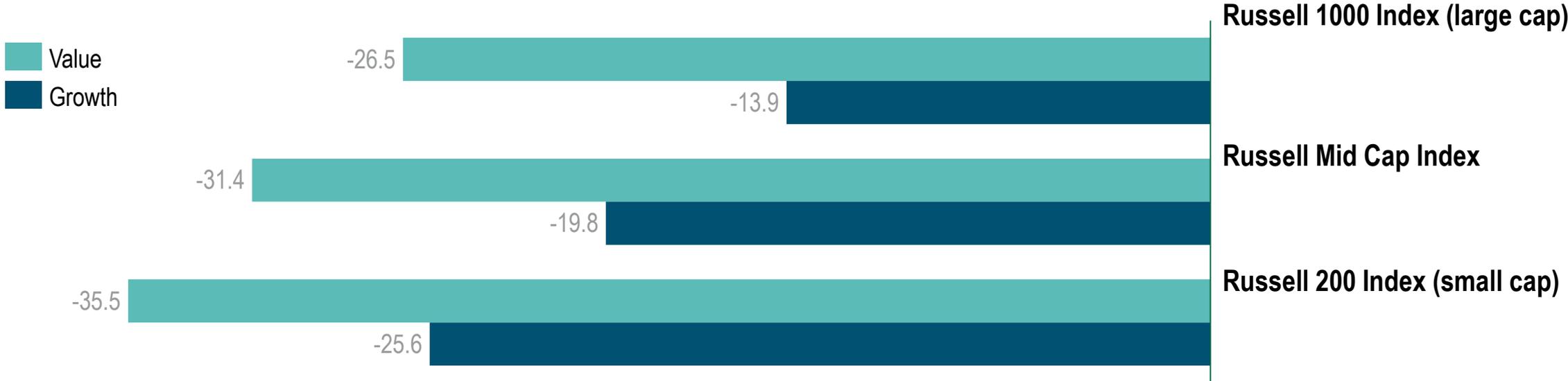
SMALL CAPS UNDERPERFORM

Net debt to EBITDA for large and small caps



Source: FTSE Russell, Standard & Poor's, J.P. Morgan Asset Management.

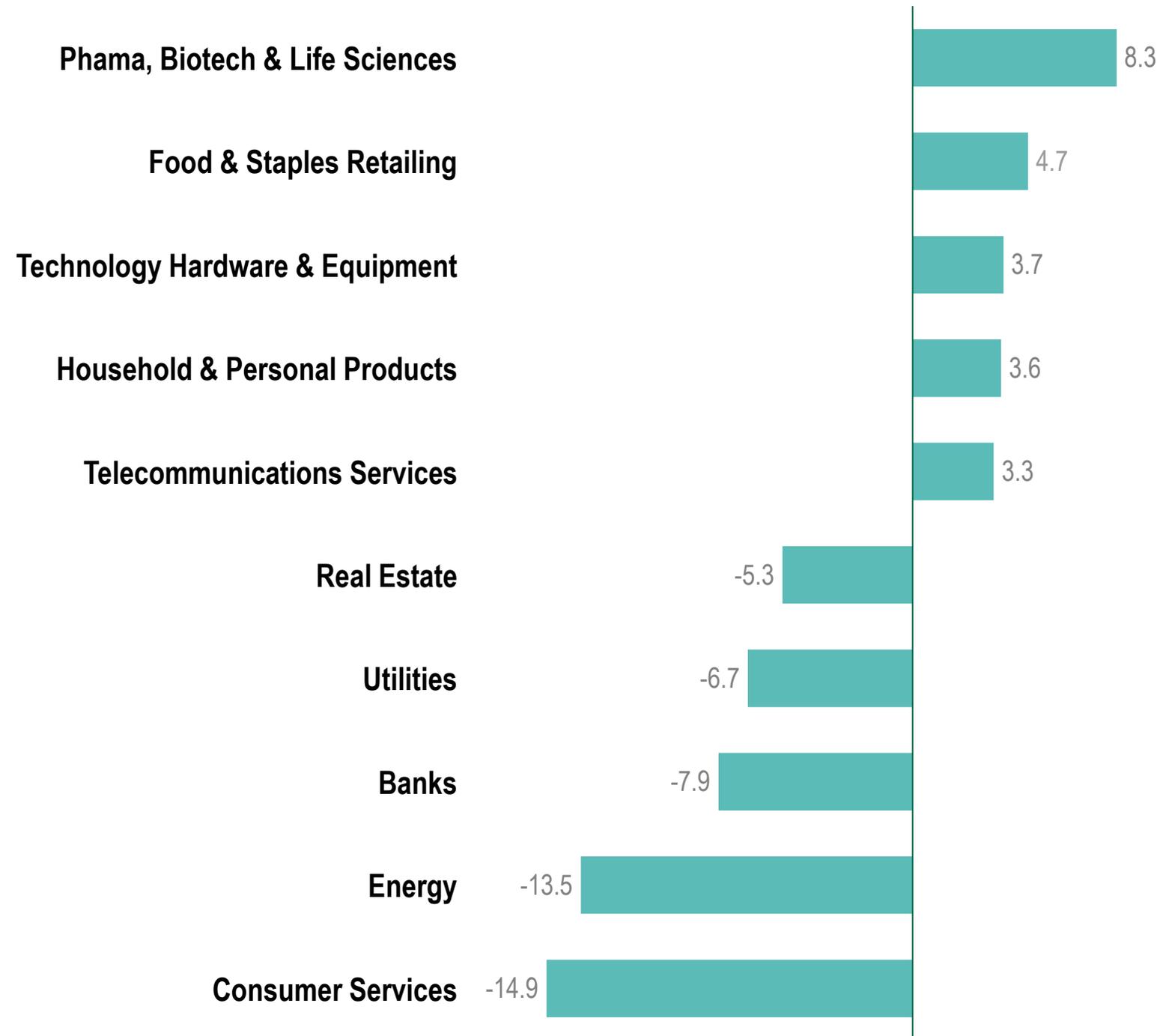
VALUE UNDERPERFORMS



Source: Russell Investments

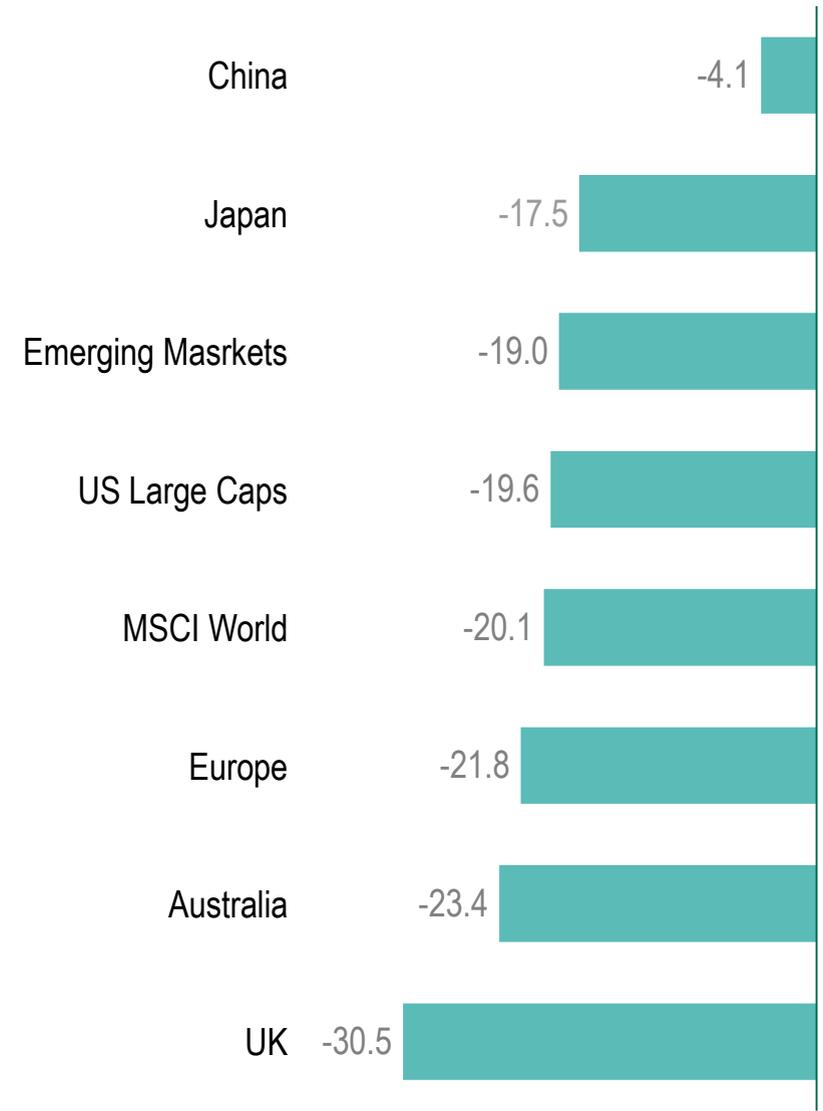
Relative Performance in Coronavirus Crisis vs. Prior Crises

MSCI World Industry Groups vs. MSCI World (%)

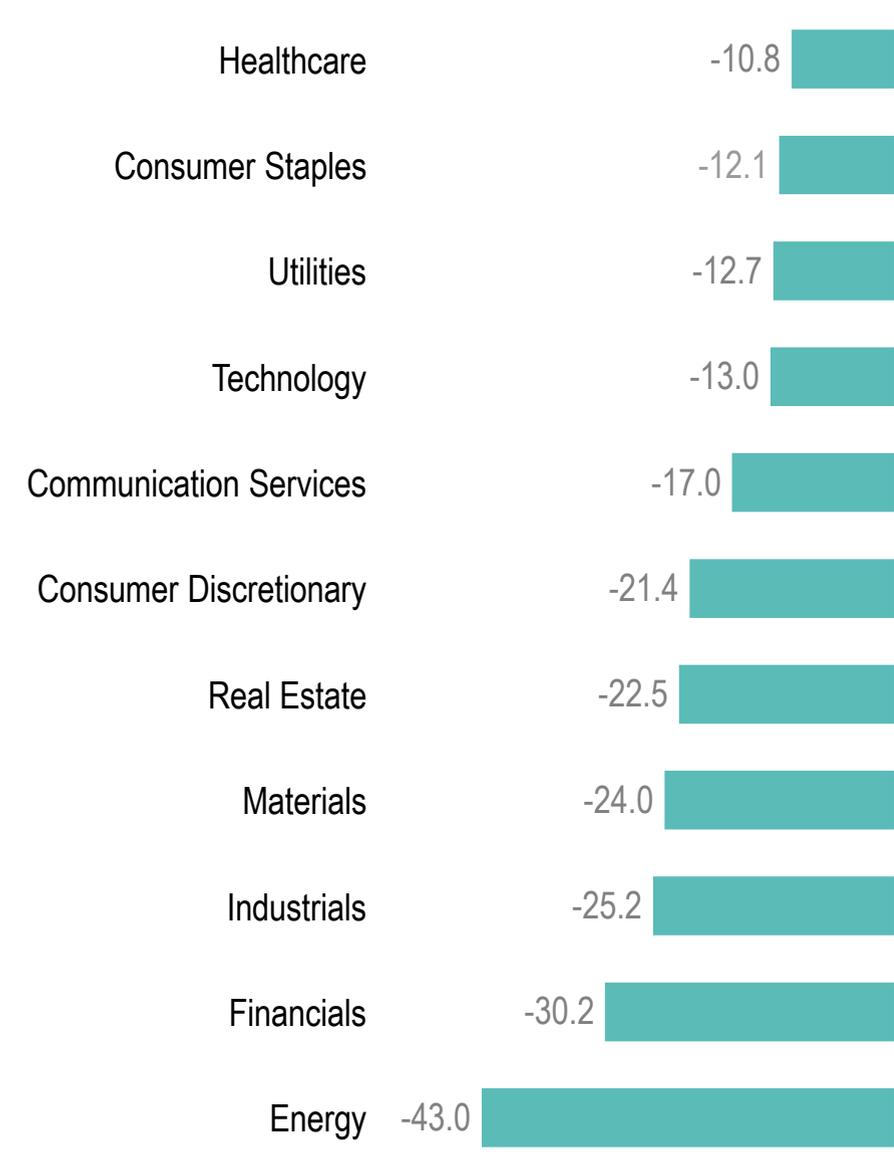


NO MARKET WAS SPARED

Regional Returns as of 3/31
Local Currency %



MSCI World Sector Returns as of 3/31
Local Currency %



Source: FactSet, FTSE, MSCI, Russell Investments, S&P, Tokyo Stock Exchange and AllianceBernstein (AB)

SELL OFF

ZOOM OUT

- For the quarter, U.S. equities suffered their worst losses since 2008, with the S&P 500 Index losing -19.60%
- The S&P 400 and 600 Indices were hardest hit, down -29.70% and -32.65% for the quarter
- Taking a step back, the broad market is down only -6.98% over the past 12 months

SECTION 2

HISTORICAL PERSPECTIVE ON SELLOFFS



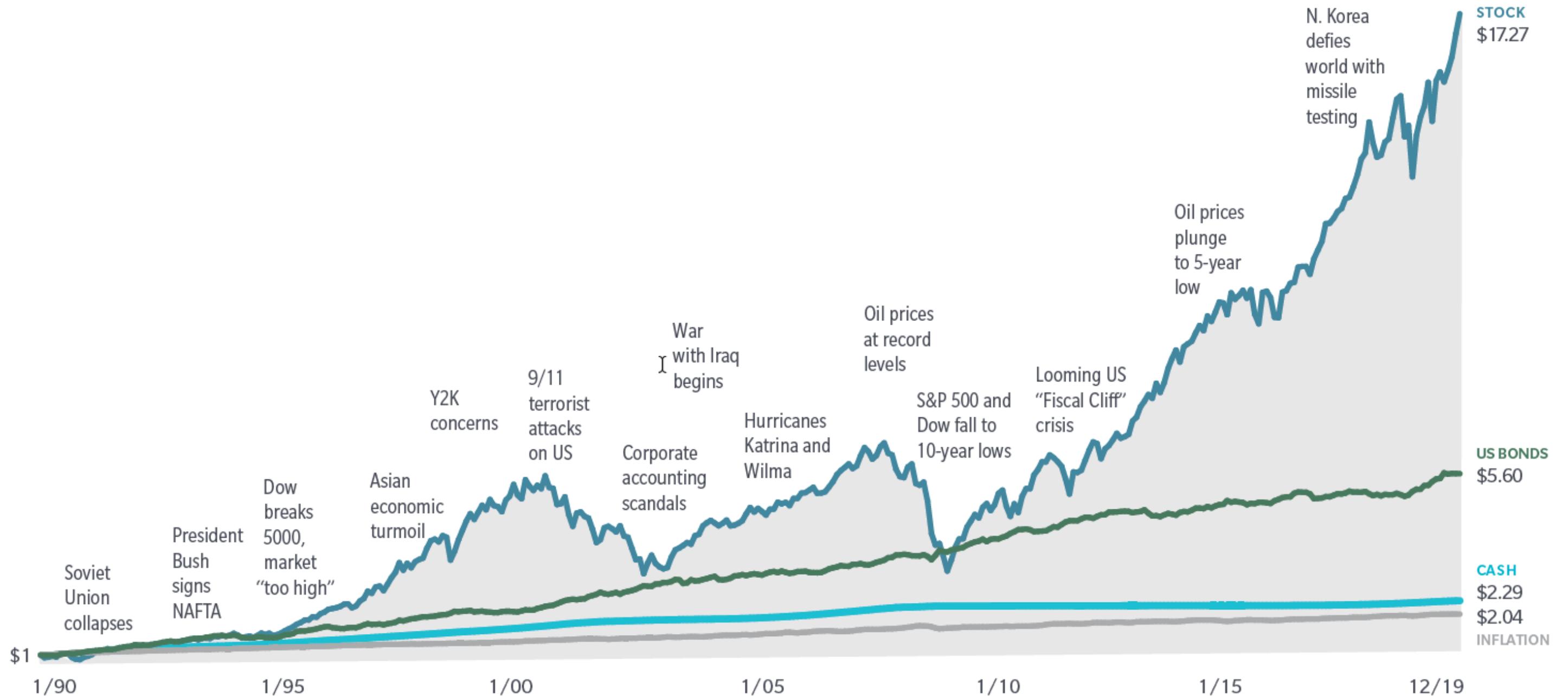
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HEADLINES HAVEN'T STOPPED STOCKS

Year	Headline
2000	Dot-com bubble bursts
2001	9/11 terrorist attacks
2002	Corporate accounting scandals
2003	Iraq War begins
2005	Hurricane Katrina and Wilma
2008	Global Financial Crisis (GFC)

Year	Headline
2009	S&P 500 falls to lowest level in a decade
2010	BP oil spill in the Gulf of Mexico
2011	Eurozone sovereign debt crisis
2013	US government shutdown
2016	UK votes to leave European union
2019	Global Trade War

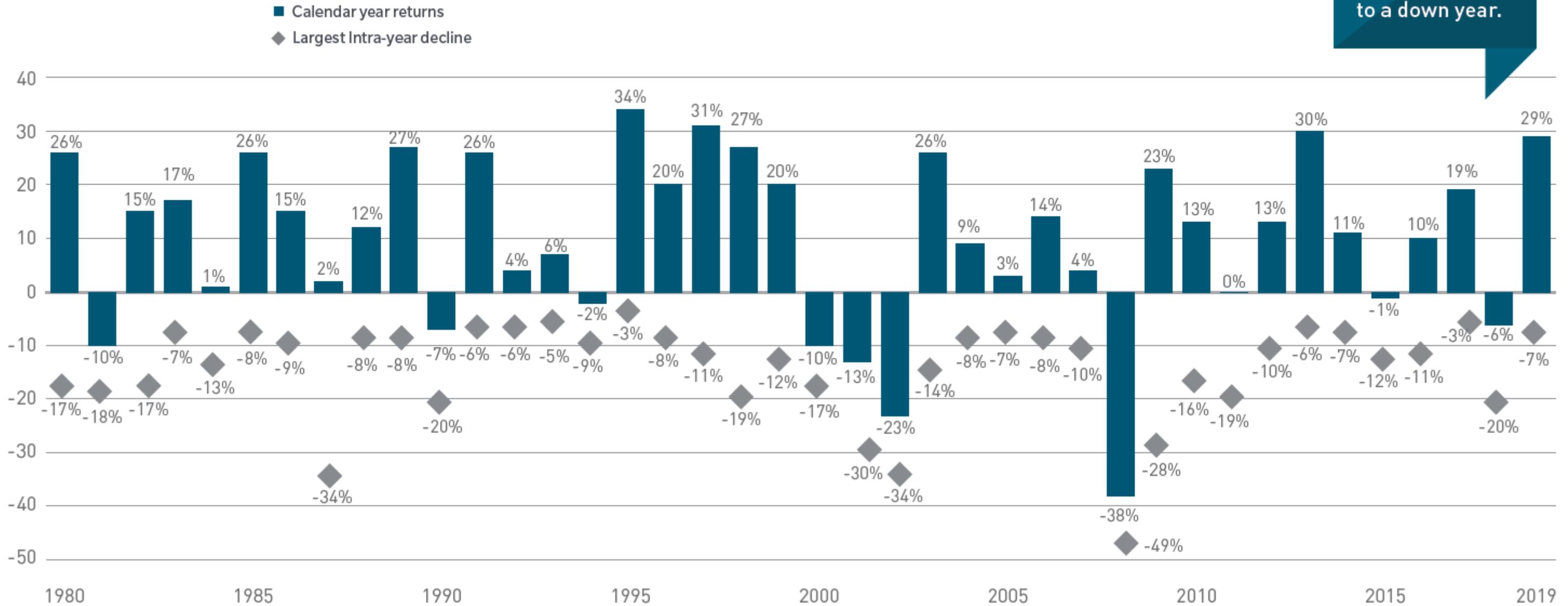
HISTORICALLY A GOOD PLACE TO INVEST



Source: SPAR, Bureau of Labor Statistics.

DECLINES DON'T LAST

In the past 40 years, only 9 declines have led to a down year.



Source: FactSet and S&P U.S. daily data (December 31, 1979 to December 31, 2019)

TIMING MARKET BOTTOMS IS NOT ADVISED

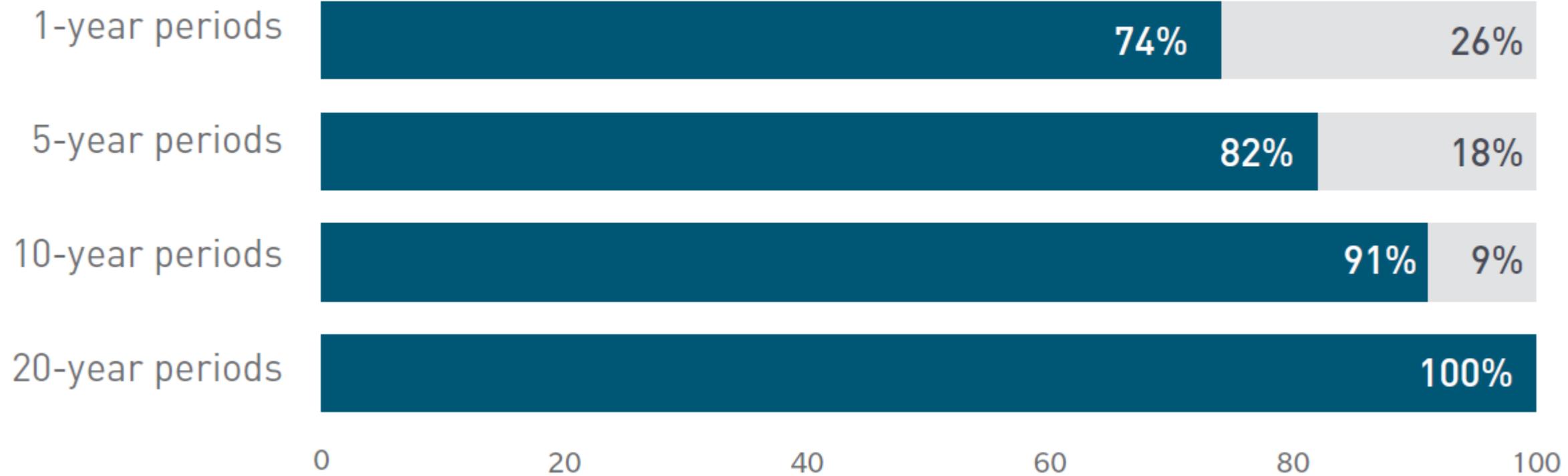
MSCI World

	Drawdown	Next Quarter's Return	Next Year's Return	Next Three Year's Return (Annualized)	Next Five Year's Return (Annualized)
May 2008 – March 2009	-55.1	43.0	75.1	26.0	22.2
April 2000 – Oct 2002	-49.3	15.4	38.2	21.3	20.9
May 2011 – Oct 2011	-22.0	12.7	26.6	18.5	12.2
Sept 2018 – Dec 2018	-17.5	16.3	32.9	?	?
Apr 2010 – May 2010	-15.2	3.3	29.2	15.0	13.8
Nov 2020 – Mar 2003	-14.4	26.3	49.0	24.5	16.9
Aug 1998 – Aug 1998	-13.4	17.5	33.0	3.9	0.6
Dec 2015 – Feb 2016	-13.1	13.2	26.1	13.4	?
July 2015 – Sep 2015	-12.6	9.1	13.2	14.3	?
Oct 2011 – Nov 2011	-12.0	18.9	21.6	19.1	11.6
May 2012 – Jun 2012	-10.9	11.8	28.8	17.6	13.2
Jan 2018 – Mar 2018	-8.6	4.6	4.9	?	?
Feb 2020 – March 2020	-23.5	?	?	?	?
Average	-20.6	16.0	31.5	17.4	13.9

100% HIT RATE

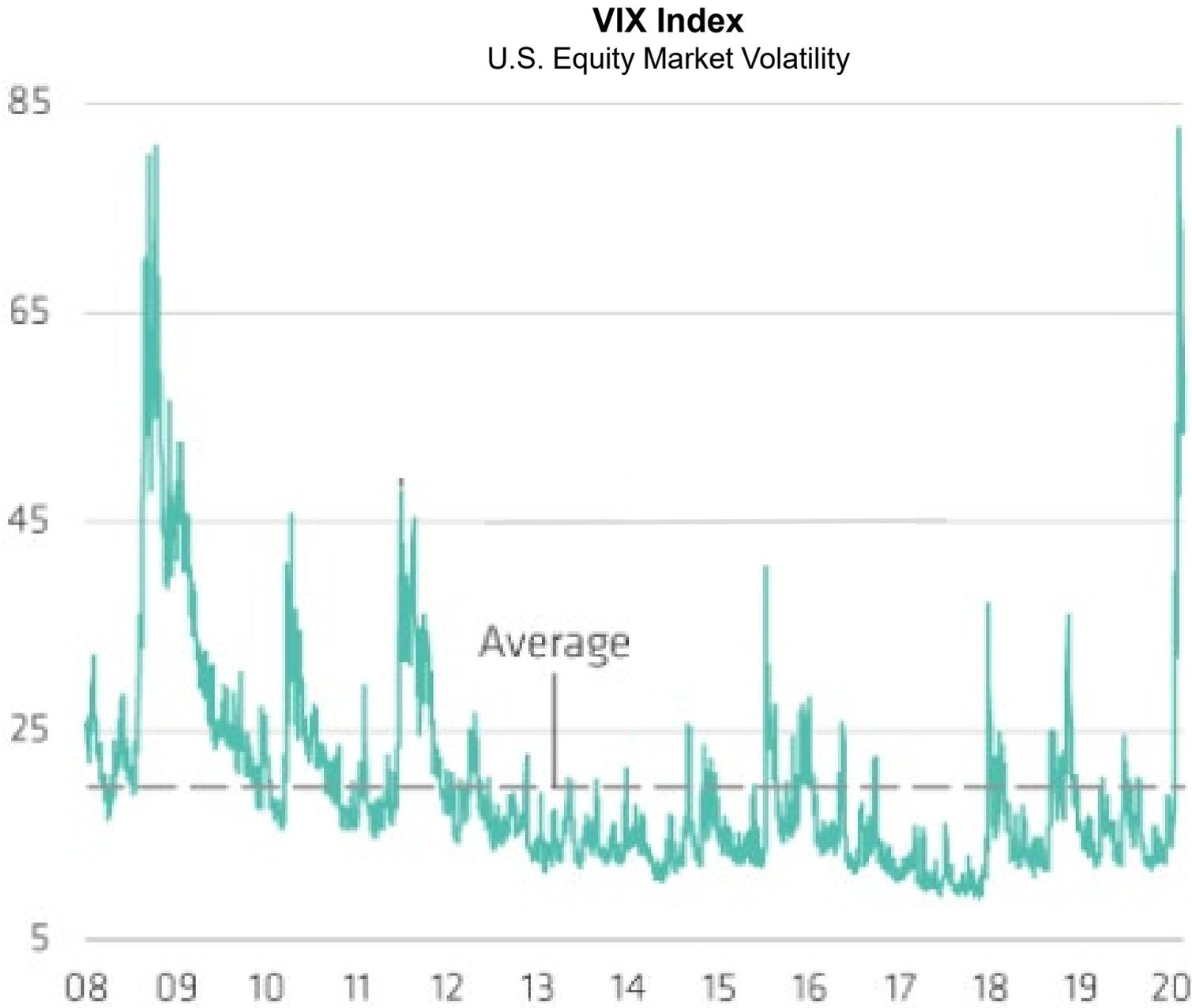
Over 20-year periods, as of 12/31/19, stocks have generated positive returns 100% of the time

- % of time periods S&P went up
- % of time periods S&P went down



Source: FactSet and S&P U.S. monthly data (December 30, 1949 to December 31, 2019)

VOLATILITY ISN'T RISK (IT'S OPPORTUNITY)

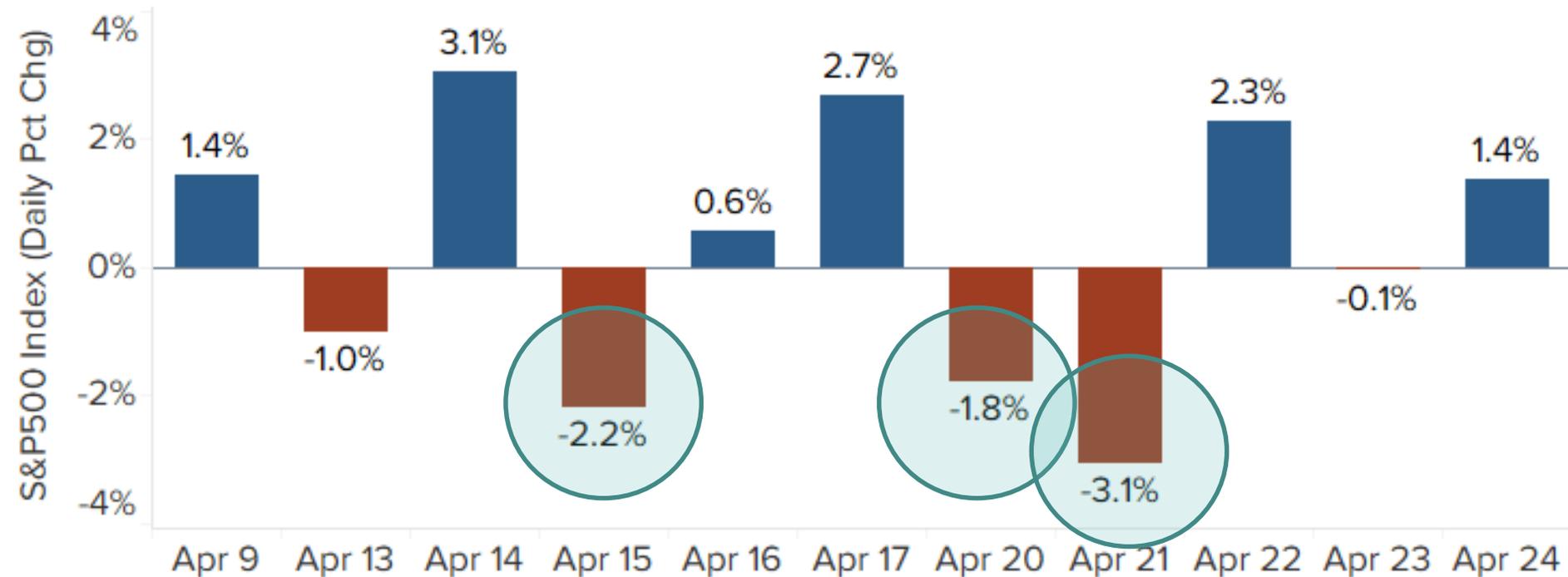


Source: Bloomberg, CBOE, MSCI, and AllianceBernstein (AB)

VOLATILITY ISN'T RISK (IT'S OPPORTUNITY)

Stock market turmoil

Daily percent change in the S&P 500 index as of market close on April 24, 2020

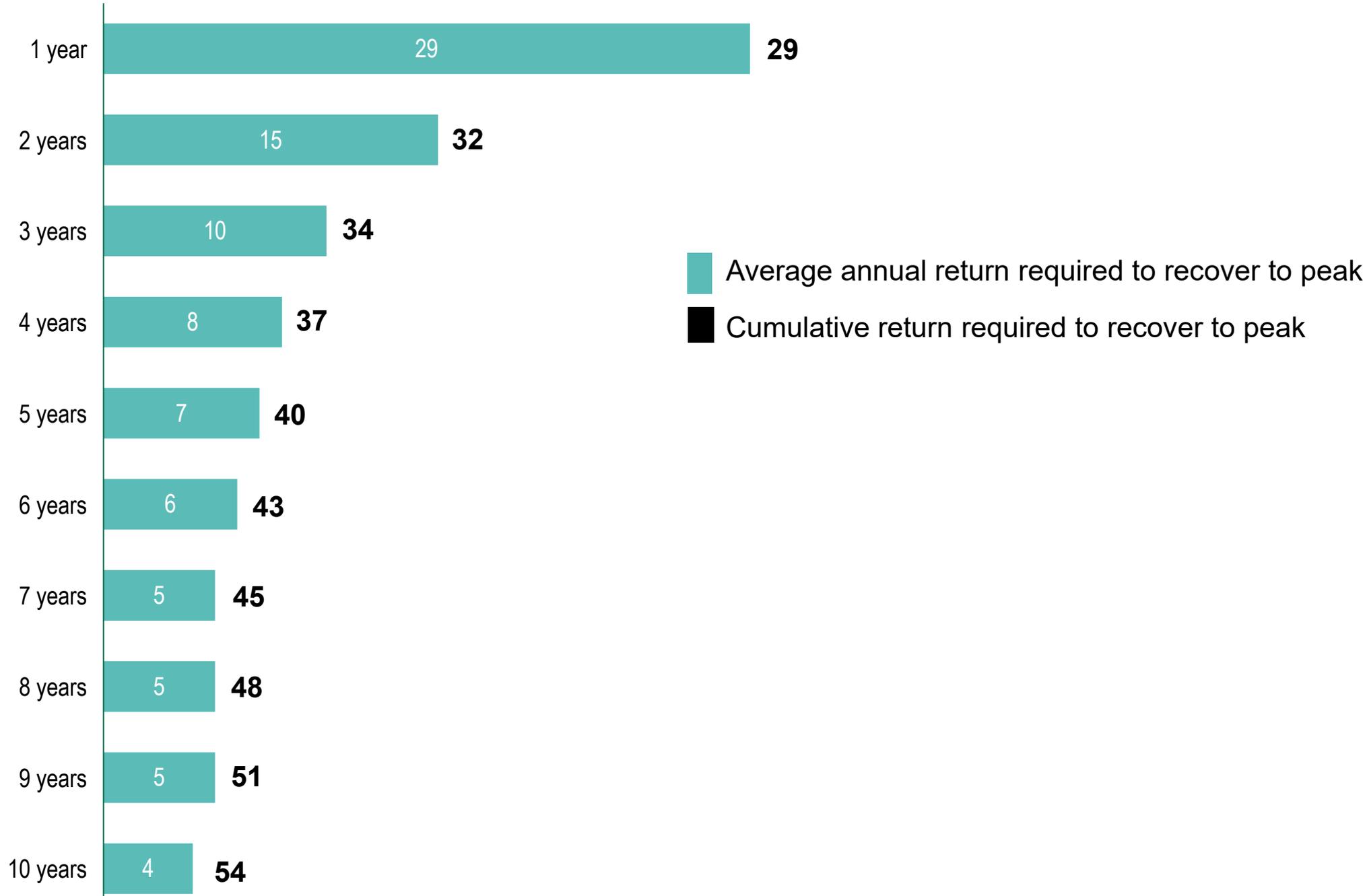


SOURCE: FactSet



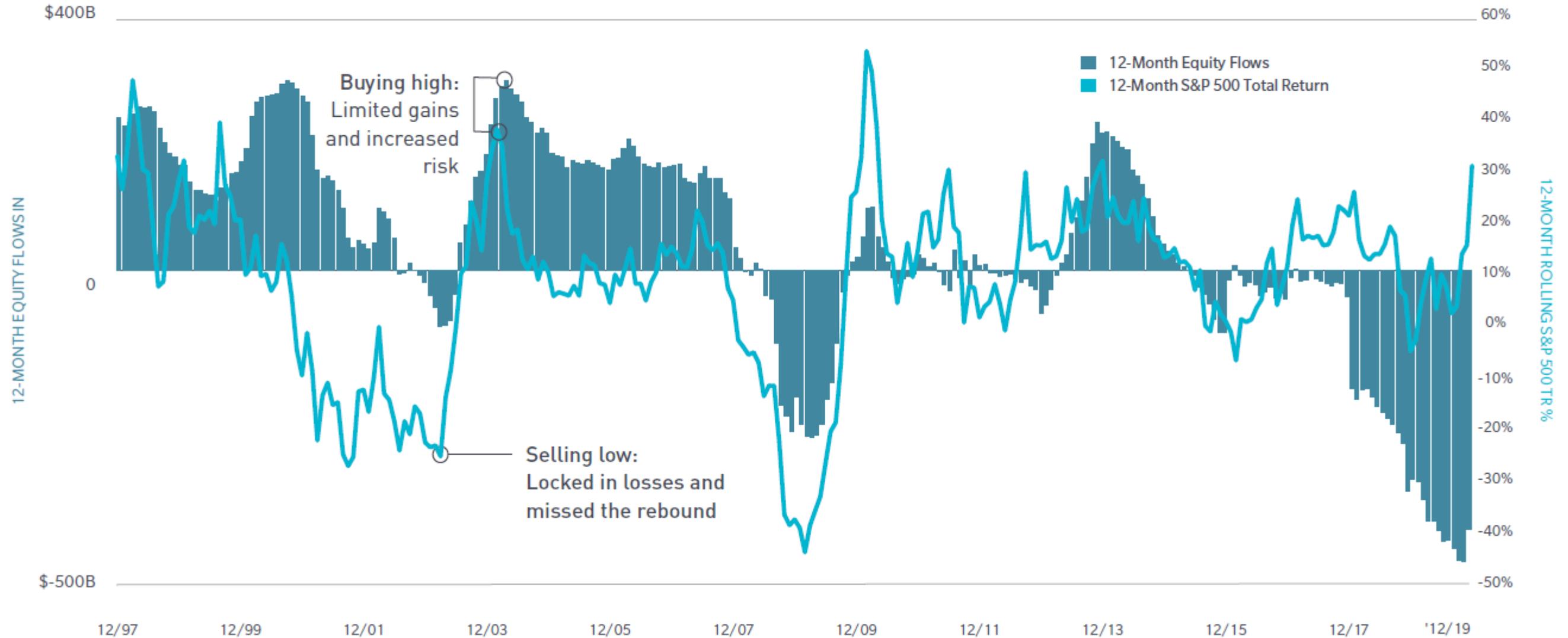
AVERAGE RETURNS NEEDED TO RECOVER TO PEAK

S&P 500



REMAINING IN THE MARKET

Monthly flows for US stock mutual funds vs. stock market performance, 12/97–12/19



REMAINING IN THE MARKET

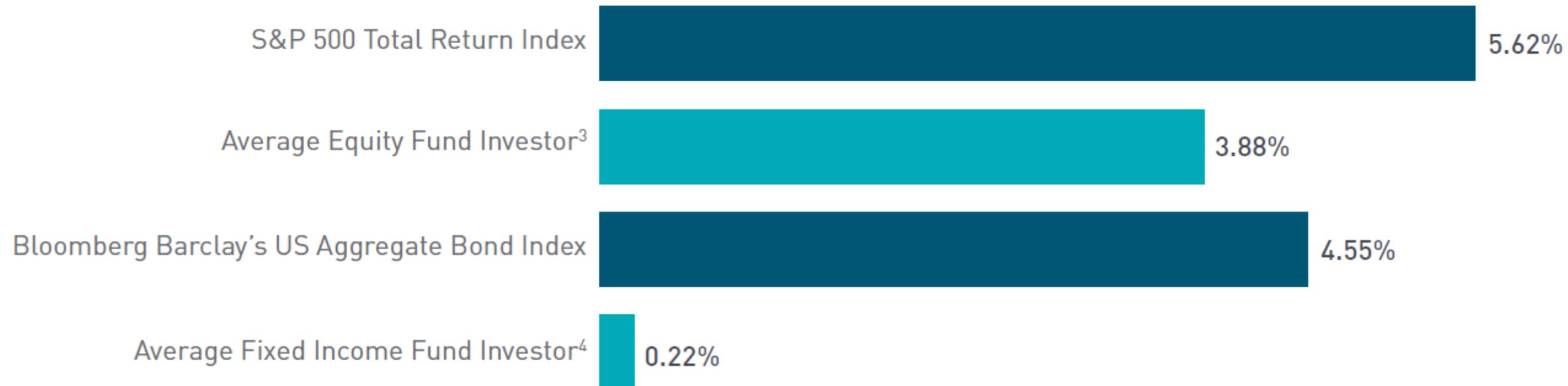
LOCKING IN LOSSES

- Peter Lynch is considered one of the best investors of all time
- His Magellan Fund generated a **+29%** average return over his 13-year tenure
- Yet, the average investor in the fund actually lost money
- How is that possible?

REMAINING IN THE MARKET

Market Returns vs. Average Investor returns 1999-2018 (latest data available)

Markets returns vs. average investor returns, 1999–2018² (latest data available)



Source: Dalbar, 2019 QAIB Report, as of December 31, 2018, latest data available.

SECTION 3

POLICY RESPONSE



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POLICY RESPONSE

ECONOMY GRINDS TO A HALT

- Global growth is currently contracting at its **fastest pace** since the Great Depression of 1929
- The more than decade-long expansion that followed the global financial crisis rested on the back of the strength of robust consumer spending
That central pillar of support has been ripped from the economy. The services sector that makes up 50% of the US has been decimated.

POLICY RESPONSE

ECONOMY GRINDS TO A HALT

- In just the first two weeks, **10 million** people filed unemployment claims in the United States, a number not seen since the Great Depression in the 1930s
- States like Ohio, Connecticut and Nevada have reported claims that are 10 to 15 times the usual rate
- More than **10%** of American workers have been displaced

POLICY RESPONSE

REMOVING TAIL RISK

- A global economic recession is now underway
- The speed and size of the fiscal and monetary response of governments and central banks has been encouraging
- It should limit the economic damage on the way down by preventing a widespread credit crunch and helping idled employees and otherwise viable businesses stay afloat
- Economies can't normalize—and company earnings can't recover—until the virus is brought under control.

POLICY RESPONSE

REMOVING TAIL RISK

Bernanke-Geithner Axiom of Economic Crisis Management:

- 1 Act fast
- 2 Ensure that the central bank and Treasury act in tandem
- 3 Go big

POLICY RESPONSE

REMOVING TAIL RISK

- When much of the global economy shuts down, the Fed must **remove “tail risk”**
- The Fed has acted fast to push rates down to close to zero and made asset purchases that dwarf those during the GFC
- The \$2.3 trillion fiscal package in the US amounted to **10%** of GDP
- Even more prodigious fiscal measures have been announced in Germany (22% of GDP), the United Kingdom (16%) and France (14%).

POLICY RESPONSE

Fed Action	Description	Used in '08
Commercial Payer Funding Facility	Special purpose vehicle will purchase A1/P1 commercial paper and short-term municipal bonds from US issuers	X
Primary Dealer Credit Facility	Provides 90-day loans to primary dealers against broad collateral	X
Money Market Mutual Fund Lending Facility	Provides loans to banks/broker-dealers against eligible collateral purchased from MMFs	X
Term Asset-backed Securities Loan Facility	Creates an SPV to lend against eligible ABS with underlying credit exposures including auto loans, student loans, and credit card receivables	X
Primary Market Corporate Credit Facility	Creates an SPV to purchase bonds rated at least BBB1/Baa3 and under four years in duration, and provides loans to eligible issuers	
Secondary Market Corporate Credit Facility	Creates an SPV to purchase eligible individual corporate bonds rated at least BBB1/Baa3 and under 5 years in duration	
Main Street Business Lending Program	Creates program to support lending to eligible small- and-medium sized businesses, complementing efforts by the SBA	

Source: Federal Reserve Bank of New York, Bank of America, UBS Asset Management)

POLICY RESPONSE

The CARES Act in brief (as of March 30, 2020)

Relief Target	Size (\$ billions)	Purpose
Industry relief	529	\$454 Bn Federal facility risk capital; can be levered to \$4.5 Tn \$50 Bn in loans and grants for airlines, \$8 Bn airline cargo, and \$17 Bn for national security industries
Small business assistance	377	Loans that become grants if employers pay workers, utilities, rent
Payroll relief	300	Employers can defer 2020 payroll taxes for up to 2 years
Individual checks	300	\$1,200 per individual, \$2,400 per couple, and \$500 per child for individual incomes under \$75,000. Phase outs after that
Unemployment insurance benefits	250	Increase of \$600 per week benefit
Additional funding for state and local governments and hospitals	250	\$150 Bn for state and local governments \$150 Bn for hospitals

Source: US Congress, UBS Asset Management

SECTION 4

INVESTING AMIDST UNCERTAINTY



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INVESTING AMIDST UNCERTAINTY

DAUNTING TASKS

- Has the market bottomed?
- How long will a recovery take?
- What's the right way to allocate for the uncertain times ahead?

UNCERTAIN OUTLOOK

- Since 1928, the U.S. has experienced 14 recessions and 21 bear markets, yet the market has **never failed to recover** and pass its previous peak
- The market sell-off and corresponding volatility is providing an opportunity to **increase the quality** of your portfolio holdings
- Road map to recovery
 1. Slowing the spread of COVID-19
 2. Temper controls and gradual reopening of the economy
 3. Relaxing of controls completely

UNCERTAIN OUTLOOK

MARKETS TRADING ON NEW CASE DATA

- Websites tracking the spread of Covid-19 show that the daily global increase in new cases may be levelling off
- It is analogous to buying bank stocks through an economic cycle where non-performing loans are tracked carefully
- The concern is a second wave of infection

UNCERTAIN OUTLOOK

WHAT SHAPE WILL THE RECOVERY TAKE?

- The virus's evolution, the duration of social distancing policies, and the speed at which macro policies will determine the shape of the recovery
- If we experience a **V**-shaped recovery, the biggest losers on the way down will be the biggest winners all the way back up
- With a **U** or **W**-shaped recovery, it's going to be harder to pick winners

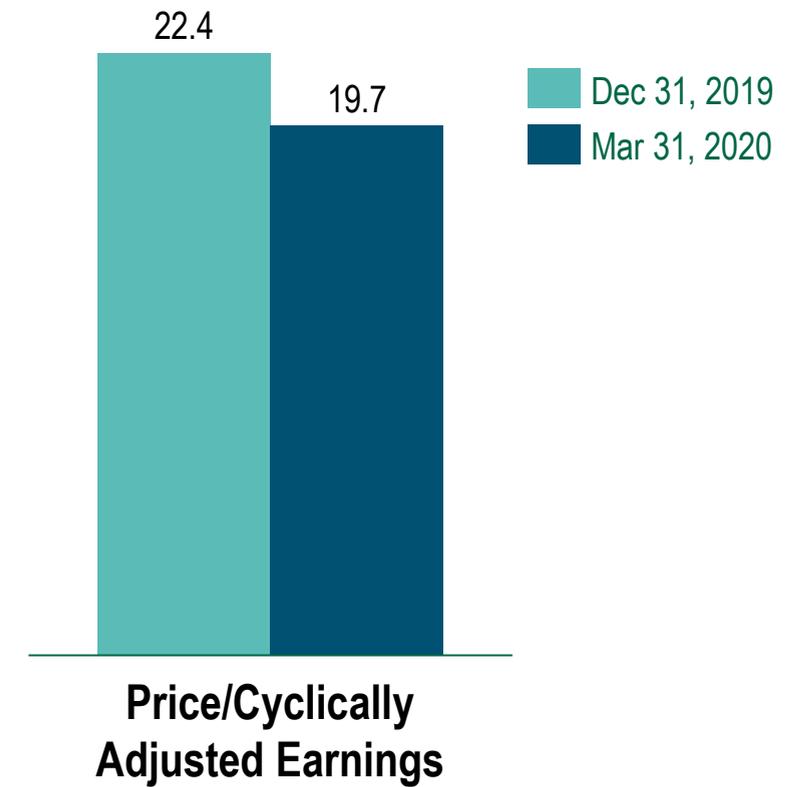
INVESTING AMIDST UNCERTAINTY

HOPE IS NOT A STRATEGY

- Markets are a **discounting mechanism** of ‘known knowns’ and the weighted probabilities of many ‘known unknowns’
- Use a wide-spectrum of data including web traffic, satellite images, and credit card data to quantify both (to the extent possible)
- Determine which changes are transitory and which are secular

STOCK VALUATIONS MURKY

MSCI World Valuations

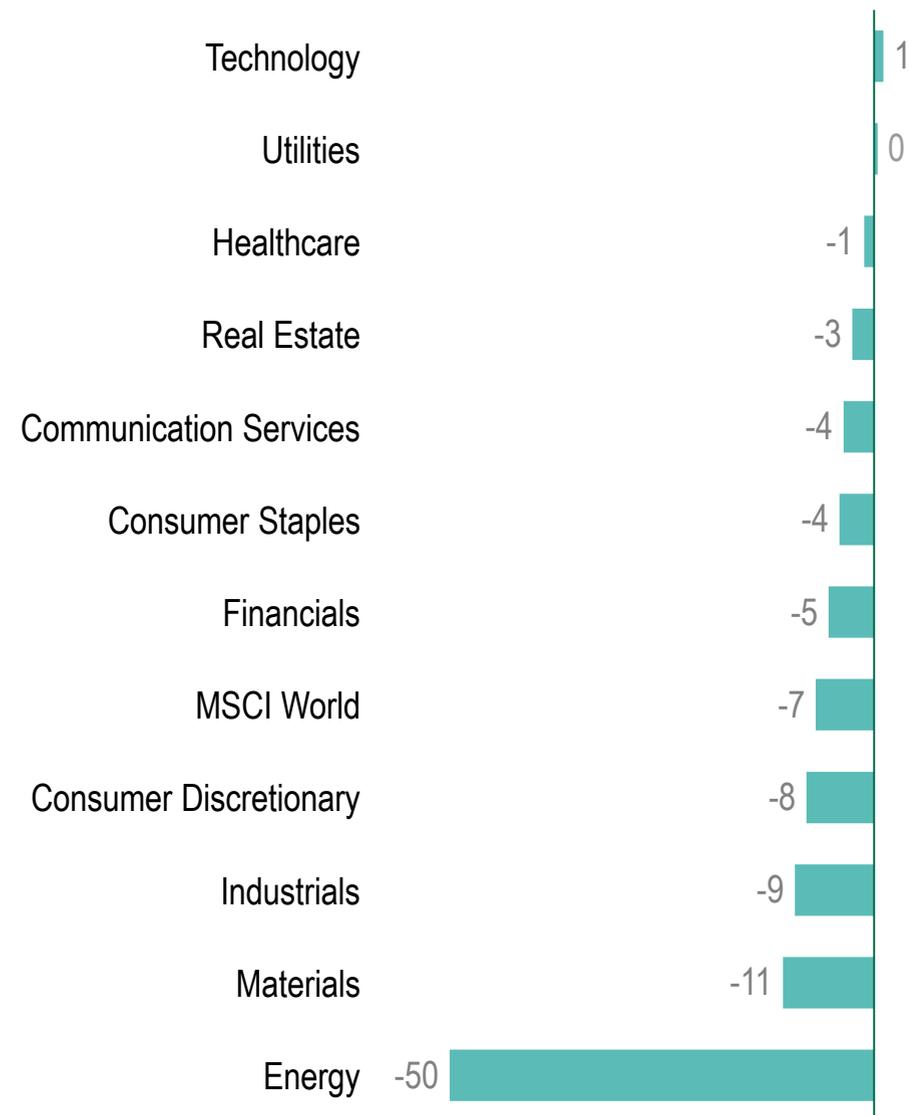


Source: Compustat, Datastream, MSCI, Worldscope and AllianceBernstein (AB)

ESTIMATES DON'T YET REFLECT RECESSION

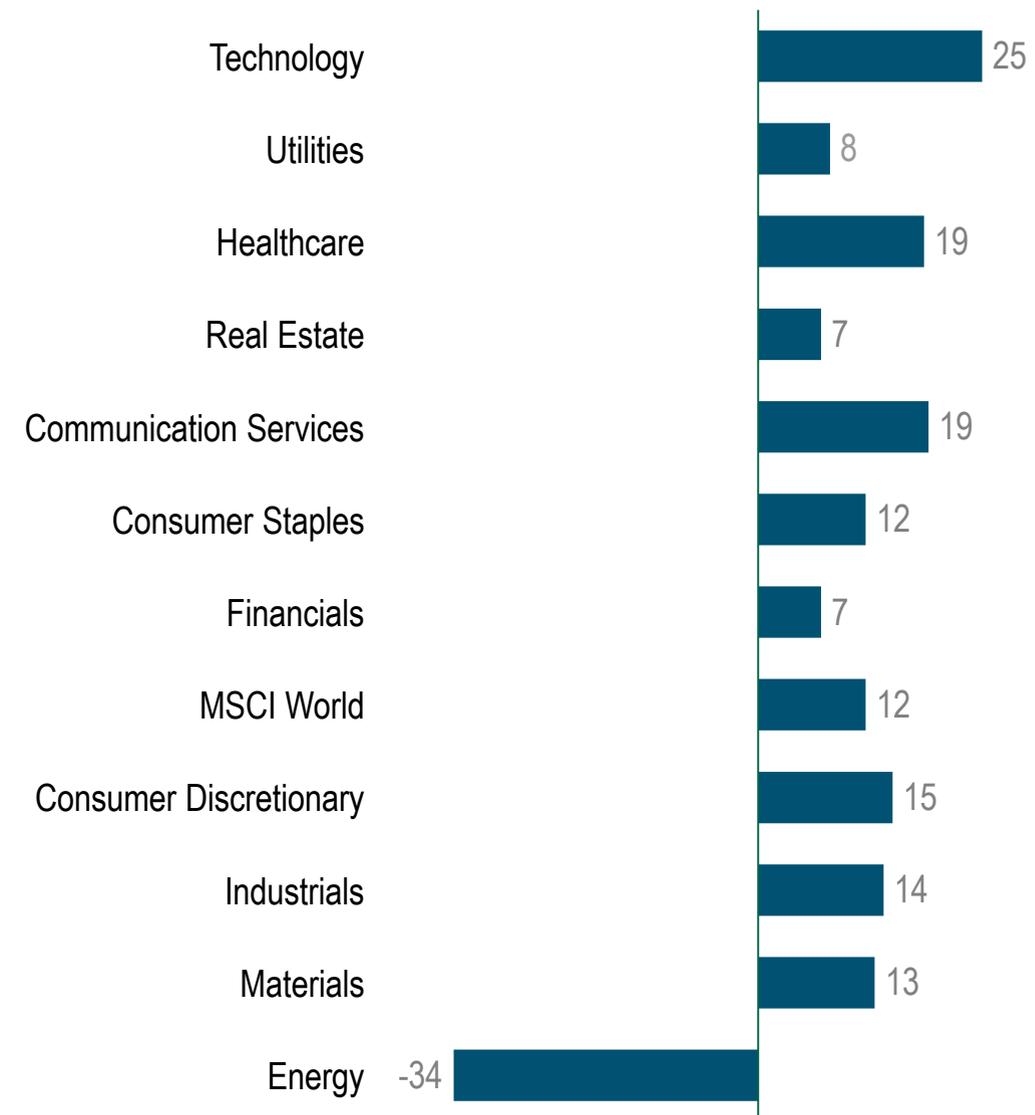
Consensus Earnings per Share Expectations (2021E)

March 31, 2020 vs. December 31, 2019 (Percent)



Consensus Earnings Growth Expectations

Forecast Growth of 2021 Expected 2019 Reported Earnings



ESTIMATES DON'T YET REFLECT RECESSION

EARNINGS IMPACT

- Assessing the impact of the pandemic on earnings is challenging
- **'Look across the valley'** and assess current prices on 2022 earnings

EXAMPLE

MSFT DCF ANALYSIS

	2020E	2021E	2022E	2023E	2024E	2025E
Net income	39,309	44,512	50,790	57,573	64,801	72,507
+ Depreciation & Amort	12,614	13,814	15,083	16,334	17,868	19,389
+ Other Non-cash Charges	3,660	4,044	4,637	5,057	5,465	5,849
+ Changes in Operating Assets & Liab	1,367	1,741	1,404	1,400	1,557	1,698
= Unlevered Cash Flow	56,950	64,111	71,914	80,365	89,691	99,443
- Capital Expenditures	16,177	17,565	19,487	21,493	23,512	25,512
= Unlevered Free Cash Flow	40,772	46,546	52,427	58,871	66,179	73,931

Assumptions: 3% perpetual growth; 8.5% WACC

Equity value per share \$152

EXAMPLE

MSFT DCF ANALYSIS

	2020E	2021E	2022E	2023E	2024E	2025E
Net income			50,790	57,573	64,801	72,507
+ Depreciation & Amort			15,083	16,334	17,868	19,389
+ Other Non-cash Charges			4,637	5,057	5,465	5,849
+ Changes in Operating Assets & Liab			1,404	1,400	1,557	1,698
= Unlevered Cash Flow			71,914	80,365	89,691	99,443
- Capital Expenditures			19,487	21,493	23,512	25,512
= Unlevered Free Cash Flow	0	0	52,427	58,871	66,179	73,931

Assumptions: 3% perpetual growth; 8.5% WACC

Equity value per share \$142

INVESTING AMIDST UNCERTAINTY

SURVIVAL OF THE FITTEST

- Downturns can have a Darwinian effect
- When recession strikes, strong companies tend to get stronger while the weak get weaker or disappear
- The earnings crunch in 2020 could lead to stronger and more profitable business in the years ahead for companies that make it through

INVESTING AMIDST UNCERTAINTY

SURVIVAL OF THE FITTEST

- The first order of business is to determine which companies have the staying power to ride out this downturn
- Look at a company's **underlying business demand, financial position and ability to cut costs**
- If you can't be highly confident that a company will still be around when this is over, you're probably taking undue risk

INVESTING AMIDST UNCERTAINTY

SURVIVAL OF THE FITTEST

- Start by building models of monthly cash burn under various scenarios
- How would the company perform in a sharp V-shaped recovery versus a U-shaped one?
- These patterns might also unfold in multiple phases of demand drops and recovery

UNCERTAIN OUTLOOK

SURVIVAL OF THE FITTEST

- Ways companies will use to close the critical funding gaps:
 - Reduce or eliminate expenses, especially labor
 - Reduce or eliminate R&D
 - Dividend cuts
 - Asset sales and/or leaseback of assets
 - Acceptance of government aid (with conditions!)
 - Force majeure
 - Bankruptcies

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SURVIVAL OF THE FITTEST

- Shift emphasis to credit analysis
- Review debt maturity schedules (and debt covenants)
- Balance-sheet strength and cash-flow continuity are key indicators of survival

INVESTING AMIDST UNCERTAINTY

SURVIVAL OF THE FITTEST

- Fundamental research focuses on the underlying business
- Business models that aim to grab market share through innovation look promising
- Be sure there is a 'moat' around the business
- Evaluate the competitive landscape

INVESTING AMIDST UNCERTAINTY

IMAGINE THE POST-CORONAVIRUS WORLD

- Investors must think today about what type of trends will reshape the landscape in the future
- Some businesses won't survive the crisis, some will be permanently impaired, and but others will emerge as **winners**
- Investors want to avoid the former and purchase the latter

INVESTING AMIDST UNCERTAINTY

IMAGINE THE POST-CORONAVIRUS WORLD

- Digital transformation
- Healthcare
- Consumer
- FinTech

INVESTING AMIDST UNCERTAINTY

CHANGING BEHAVIOR COULD CHANGE DEMAND

- People everywhere are experiencing startling changes to work and everyday life. What's next?
 - Will companies and their employees be more comfortable with remote working arrangements?
 - Will business travel be permanently reduced as we become more acclimated to video meetings?
 - Is demand for “experiences” like theme parks and cruises going to be permanently impaired?
 - What about grocery shopping?

Section 5

NOT EVERYTHING THAT COUNTS CAN BE COUNTED

COMPANIES WITH HIGHER ESG RATINGS FELL LESS

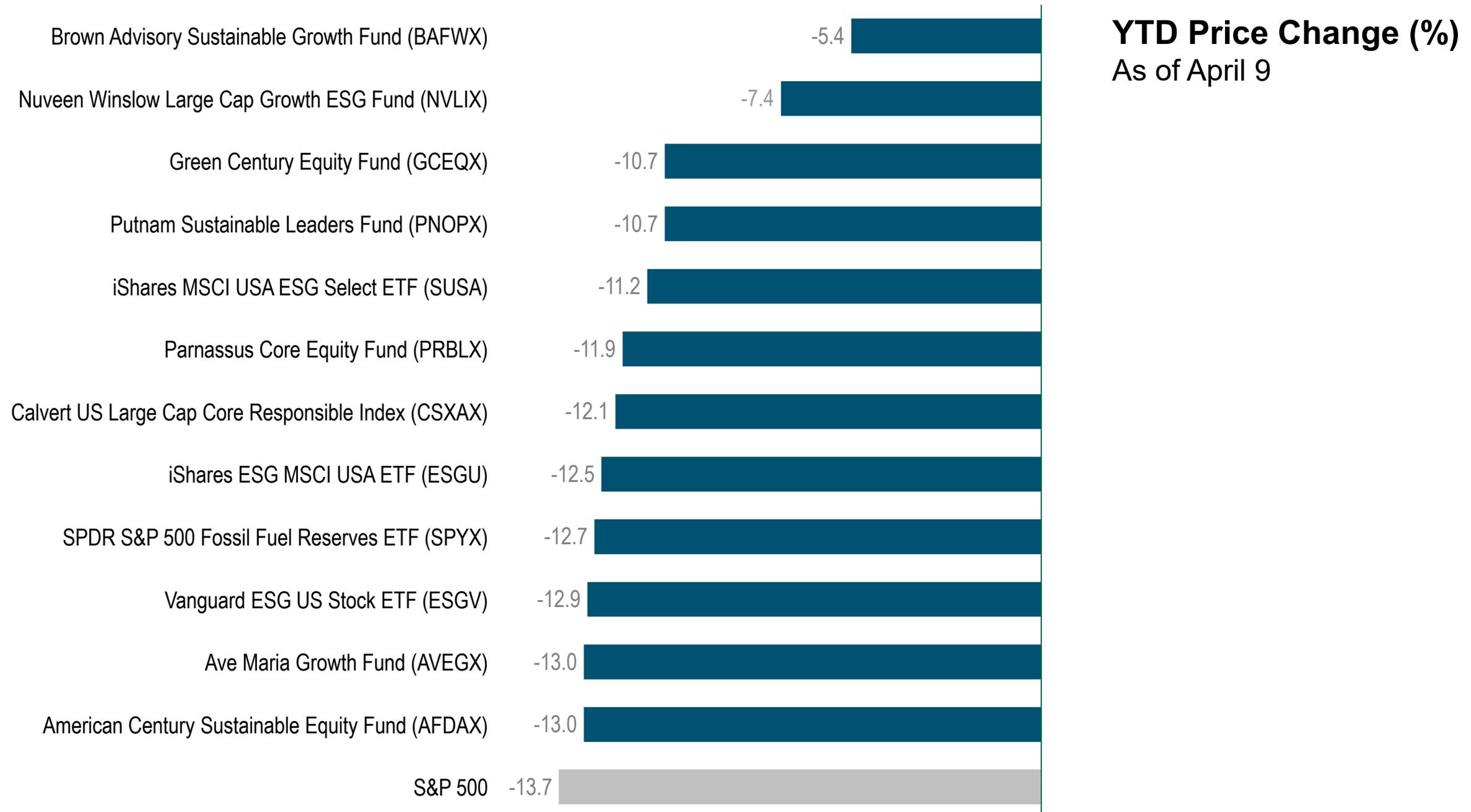
Returns by MSCI ESG Rating

Market cap weighted average %

Jan – Mar 2020



ESG FUNDS OUTPERFORM



Source: S&P Global Market Intelligence

For us, sustainability is not an end in and of itself; it is a means by which we turn over more rocks, look at more information, and add a complementary lens in order to gain conviction on a company's strategy, operations, and growth prospects

- Karina Funk, Portfolio Manager

ESG LENS

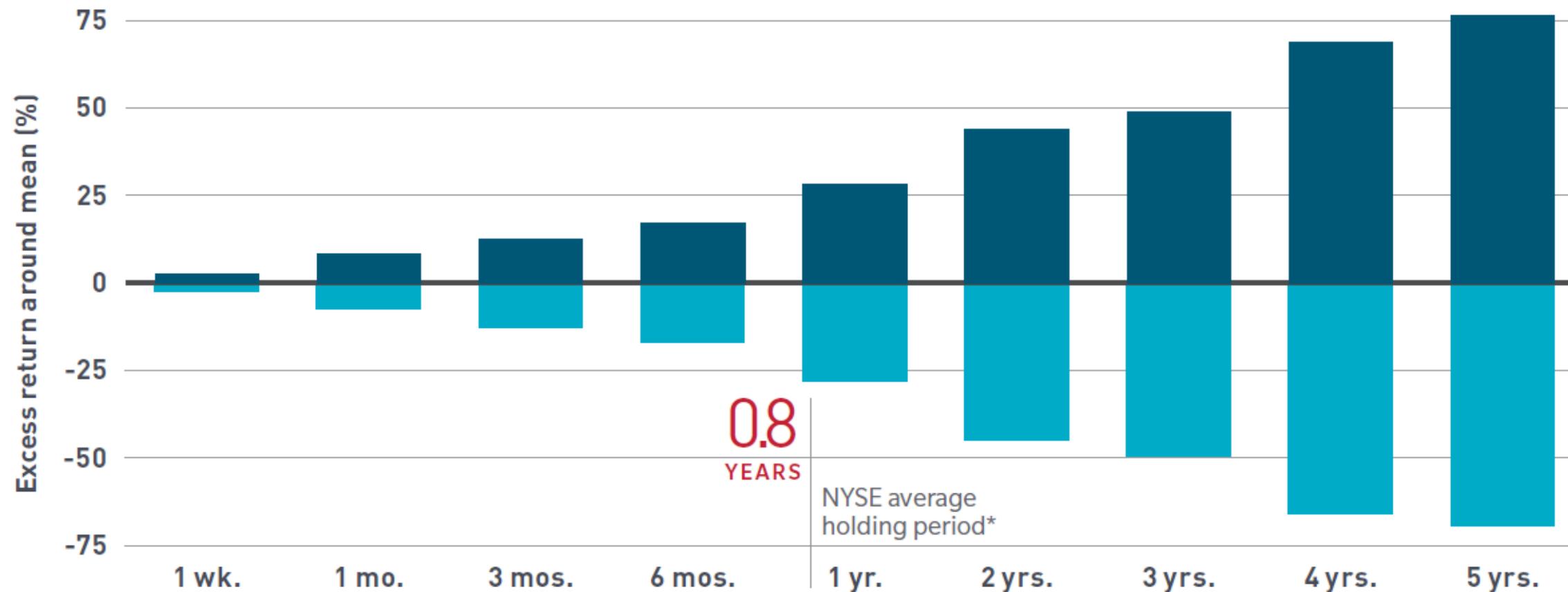
HOME DEPOT, MICROSOFT, AND PAYPAL

- During the upheaval, management's most enduring actions will include ESG decisions as well as financial ones
- It's easy to publish a shiny sustainability report, but during tough times, we get to see they prioritize stakeholders
- Investors are embracing these types of corporate actions, even though they may come at the expense of short-term earnings

CONCLUDING THOUGHTS

LENGTHENING YOUR INVESTMENT HORIZON

MSCI World Index total return dispersion around the mean return 2014-2018

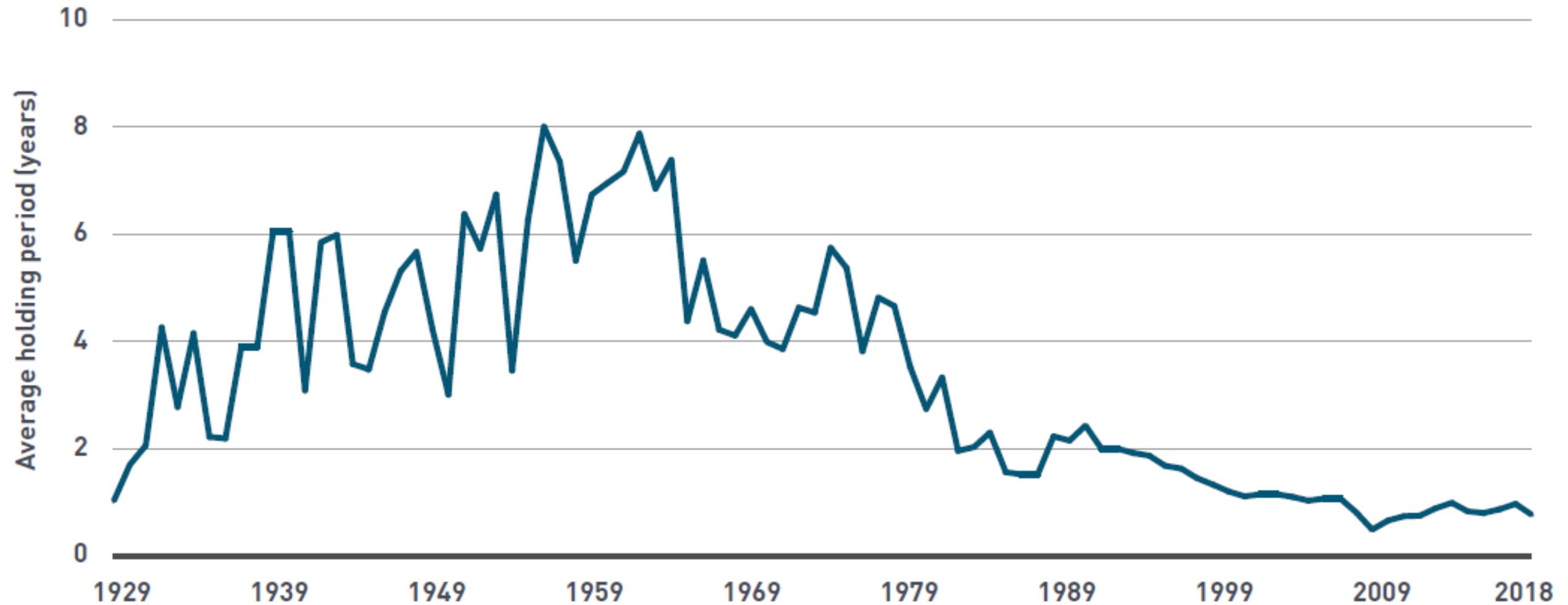


Source: MSCI. The **MSCI World Index** measures stock markets in the developed world. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed or produced by MSCI.

*Source: Ned Davis Research Group, from Barron's and IDC. The average holding period for a stock was 0.8 years as of 12/31/18.

LENGTHENING YOUR INVESTMENT HORIZON

NYSE average holding periods, 1929 – 2018



Sources: Barron's, IDC, as of 12/31/18.

“

Creative thinking, a sober assessment of the short-term challenges, and a focus on long-term business fundamentals and valuations all figure as keys to identifying the quality companies poised to survive through the pandemic and thrive in the new post-crisis reality.

”

- KENT HARGIS

THANK YOU

It's been a pleasure speaking to you!

SPECIAL GUEST

JOHN C. BAILER, CFA '92

- Senior Portfolio Manager for the dividend-focused Large Cap strategies at Mellon
- He has managed the team's dividend strategies since 2005 and is the lead portfolio manager for the Equity Income Strategy
- Senior research analyst on Dynamic Large Cap Value strategy responsible for the Consumer, Technology & Communication Services sectors
- 28 years of industry experience
- Chairman of the Stephen D. Cutler Center for Investments and Finance Advisory Board



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The comments, opinions, and analyses outlined in this presentation may change without notice. Data from third party sources was used in the preparation of this presentation, but has not been verified, validated, or audited.

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