WHAT YOU NEED TO KNOW

Q1 2020 MARKET UPDATE

With the IRON Investment Team

IRON FINANCIAL

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Overview

1. Market update, including performance of various stock and bond categories
2. Macro-economic update amid the Covid-19 pandemic
    - Labor markets
    - Economic indicators
    - Confidence levels
    - Inflation
    - Fed Policy, interest rates

A Note From the Team

Markets and economies were overwhelmed by fears over the COVID-19 pandemic that has rapidly spread across the globe and, in the process, brought an abrupt end to the longest U.S. expansion on record. Recessions typically follow from economic and or financial imbalances or overly tight monetary policy. But this time, none of those characteristics are present. Instead, economic activity has been deliberately shut down by the government seeking to curtail the spread of the highly contagious C0VID-19 and to avoid a large-scale public health crisis that could potentially overwhelm state and local healthcare systems.

In response to this threat, the Federal Reserve intervened massively to prevent a liquidity crisis from turning into a credit crisis. Policymakers cut rates to effectively zero, committed trillions of U.S. dollars to support cash markets, pledged an unlimited amount of QE, and launched numerous new credit facilities to backstop bank balance sheets and to support money market funds. Lawmakers passed the CARES Act, a $2.3 trillion stimulus package designed to soften the severity of the recession, effectively putting much of the economy on the government's payroll for a few months.

The total number of Americans applying for unemployment benefits climbed to above 26 million since the coronavirus pandemic laid siege to the U.S. economy six weeks ago. Economists estimate that the spike in unemployment has likely pushed the jobless rate to between 15% and 20%. The only other time in American history when unemployment was that high was in the early stages of the Great Depression almost a century ago.

Market conditions brought back memories of 2008-2009 as risk assets fell sharply, and investors sought the safety of Treasury and government-backed debt. U.S. crude oil crushed from both the demand shock from COVID-19 and supply shock resulted from the disagreement among OPEC+ members. On April 20, the U.S. oil's May contract plunged to negative, meaning that you would have to pay to get someone to take a barrel of oil off your hands. It was the biggest one-day fall on record.

The timetable for reopening the U.S. economy hinges on many essential milestones such as increased testing, contact tracing, breakthroughs on treatment, and vaccine. Major economies are not well prepared to reopen and handle the potential of a second wave. The government's quick monetary policies have been beneficial so far. But many risks remain. For instance, the current fiscal stimulus does not adequately address the need, and new waves of COVID-19 can easily overwhelm fiscal support. But if the economy recovers in the second half of the year, the unprecedented levels of fiscal stimulus can structurally shift to inflation from deflation.

Let us hope for the best on all fronts!

Market Update

The Bad, The Ugly & The Worst

The “Great Health Crisis” surpassed many fallouts from the 2008 Great Financial Crisis, and it finds a prominent place in the historical records and new books. The crux of this story will be what happens next?

- So far 26 million Americans have lost their jobs, the unemployment rate will probably top 15%
- A 34% drop in the US Stock Market – the fastest drop on record (22 days)
  - Investors sold both high-risk assets and high-quality bonds indiscriminately
  - The volatility index, VIX (aka fear gauge of the market) hit a 2008-crisis high of 82.6
  - At one point, the entire Treasury curve traded below 1% for the first time
  - Short-term money markets strained as large companies drew down cash
  - Corporate credit including investment-grade spreads widened
  - Led to a historic negative demand shock. Simultaneously, a massive supply shock led to the collapse of oil prices; crude fell to below $3/bl
- The US economy headed for a deep recession

Preventing the Economic Abyss

While social distancing has proved itself as an invaluable tool, the fast and decisive policy actions are helping prevent the economic abyss

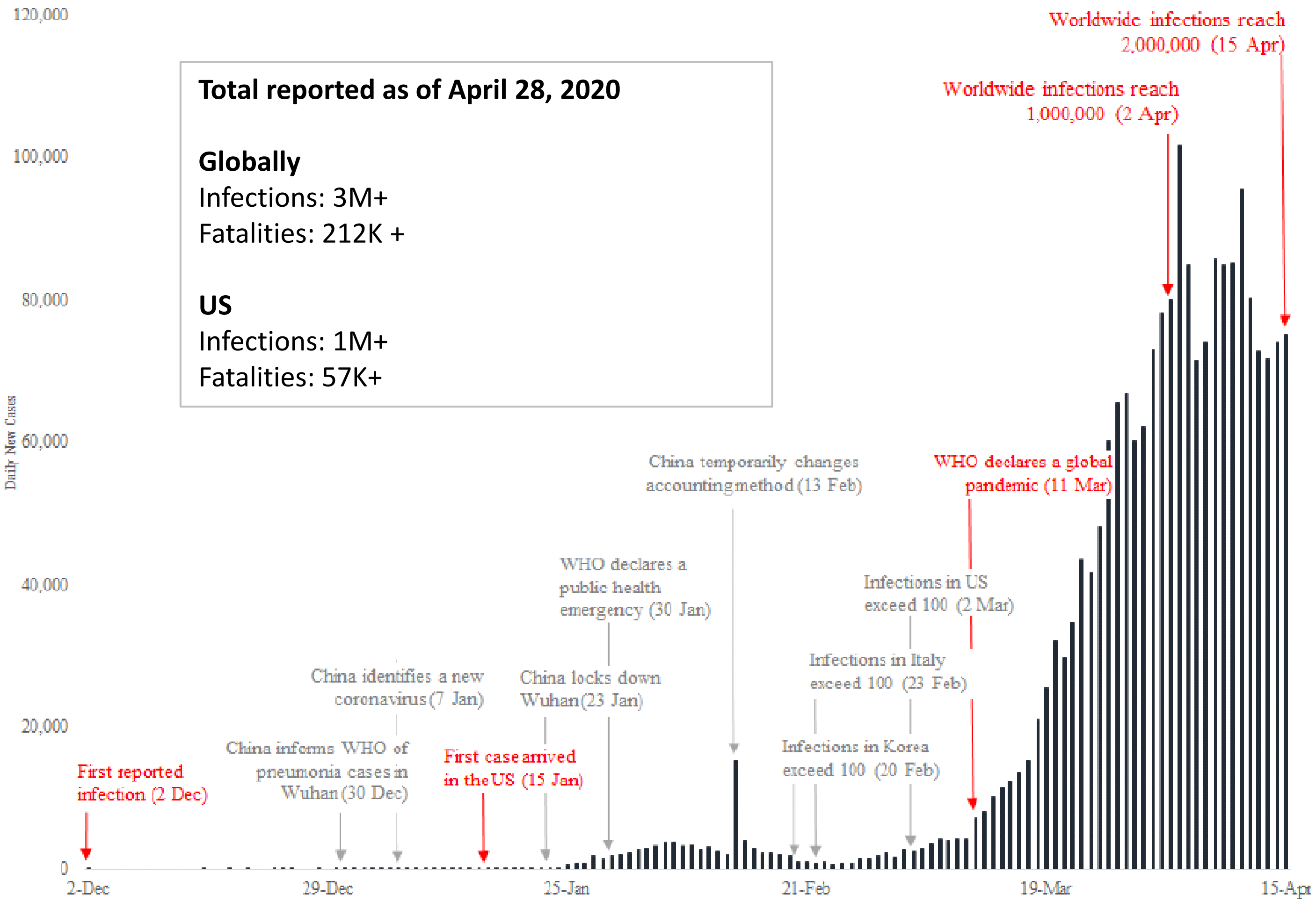
Fiscal Policy	Monetary Policy
• Phase I, $8.3 billion • Phase 2, $105 billion • Phase 3, CARES Act, $2.3 trillion • Phase 3.5, $480 billion A total 10-12% of GDP	• Rates cut 150bp to zero • QE – unlimited bond purchases (~$4 trillion) • (Treasuries, MBS, IG and select HY) • Created several liquidity and loan facilities • Eliminated reserve requirements for banks

Infections & Fatalities

Total reported as of April 28, 2020

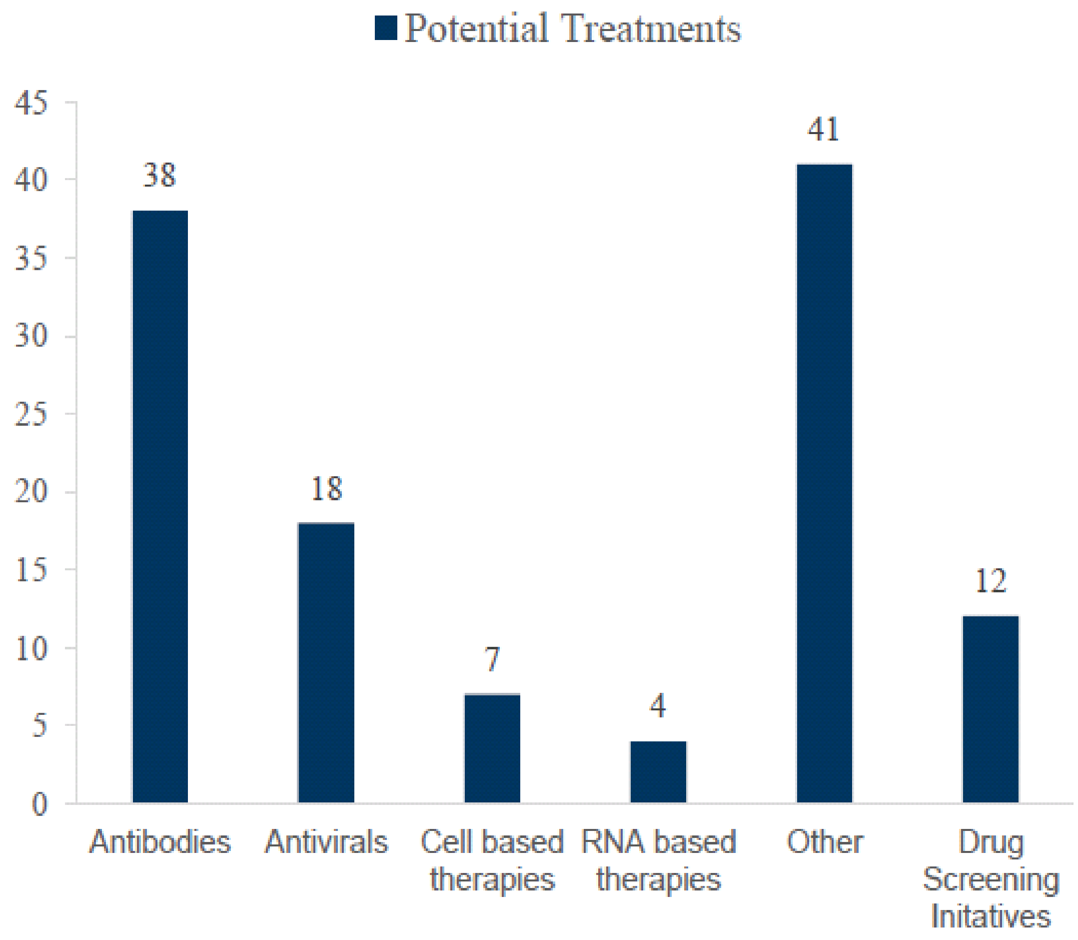
Globally
Infections: 3M+
Fatalities: 212K +

US
Infections: 1M+
Fatalities: 57K+



Sources: Goldman Sachs Investment Strategy Group, WHO, CDC, National Health Commission of People's Republic of China, John Hopkins University, Worldometers

Potential Treatments



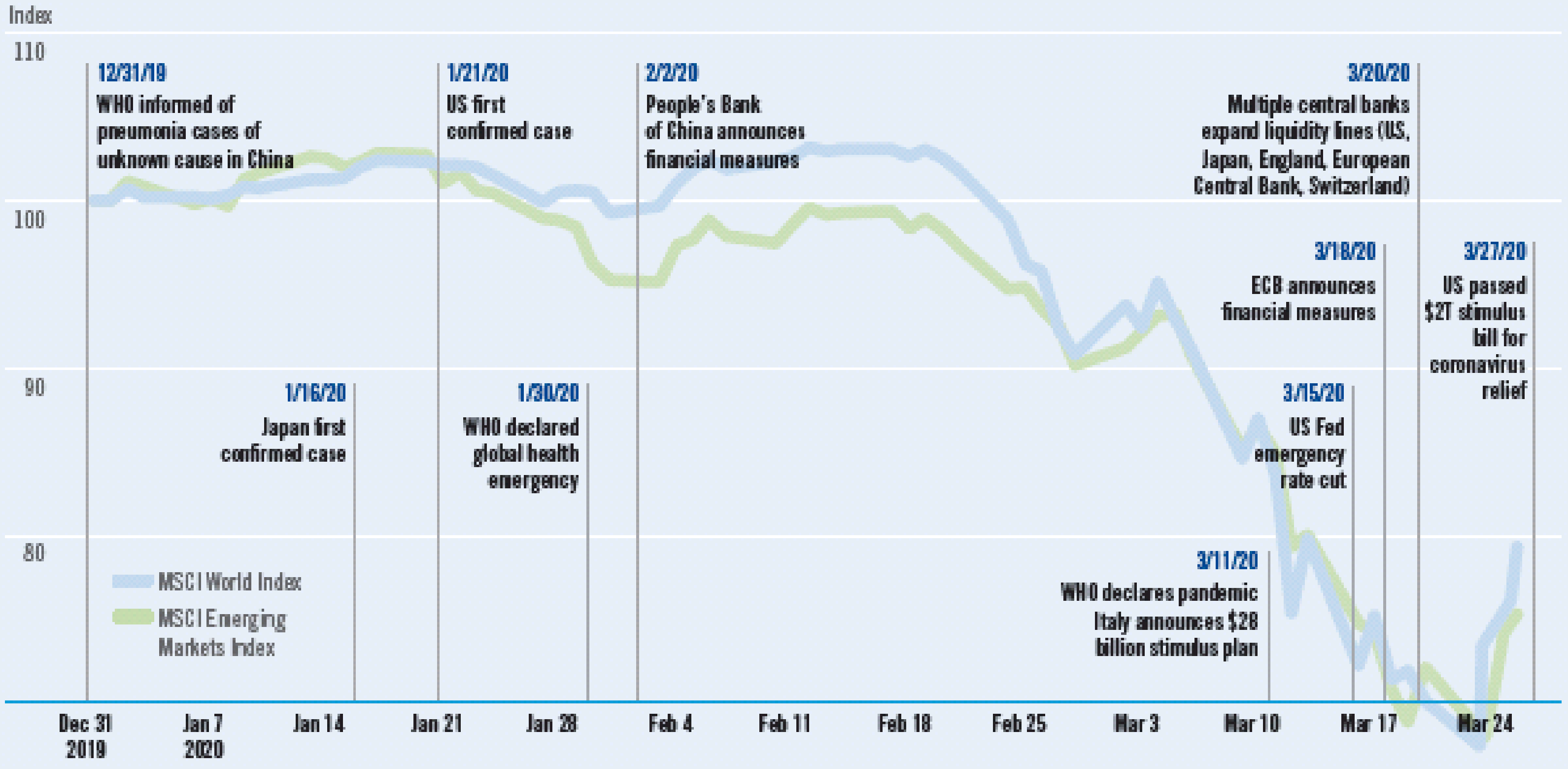
Sources: Goldman Sachs Investment Strategy Group, FasterCures/The Milken Institute

- Treatments are being developed to provide tools to impact the trajectory of the condition while a vaccine is developed.
- Some treatments are being studied to see if they can prevent infection. In addition, many currently used medicines are being studied to see if they can be repurposed to fight COVID-19.
- FasterCures/Milken Institute is currently tracking **120** potential treatments, including following **12** drug screening initiatives.*
- 50 Treatment candidates currently in clinical trials or being used in hospitals/compassionate use
- More than 15 treatment candidates expected to enter human trials by the end of the summer

Pandemic Headlines vs. the Market

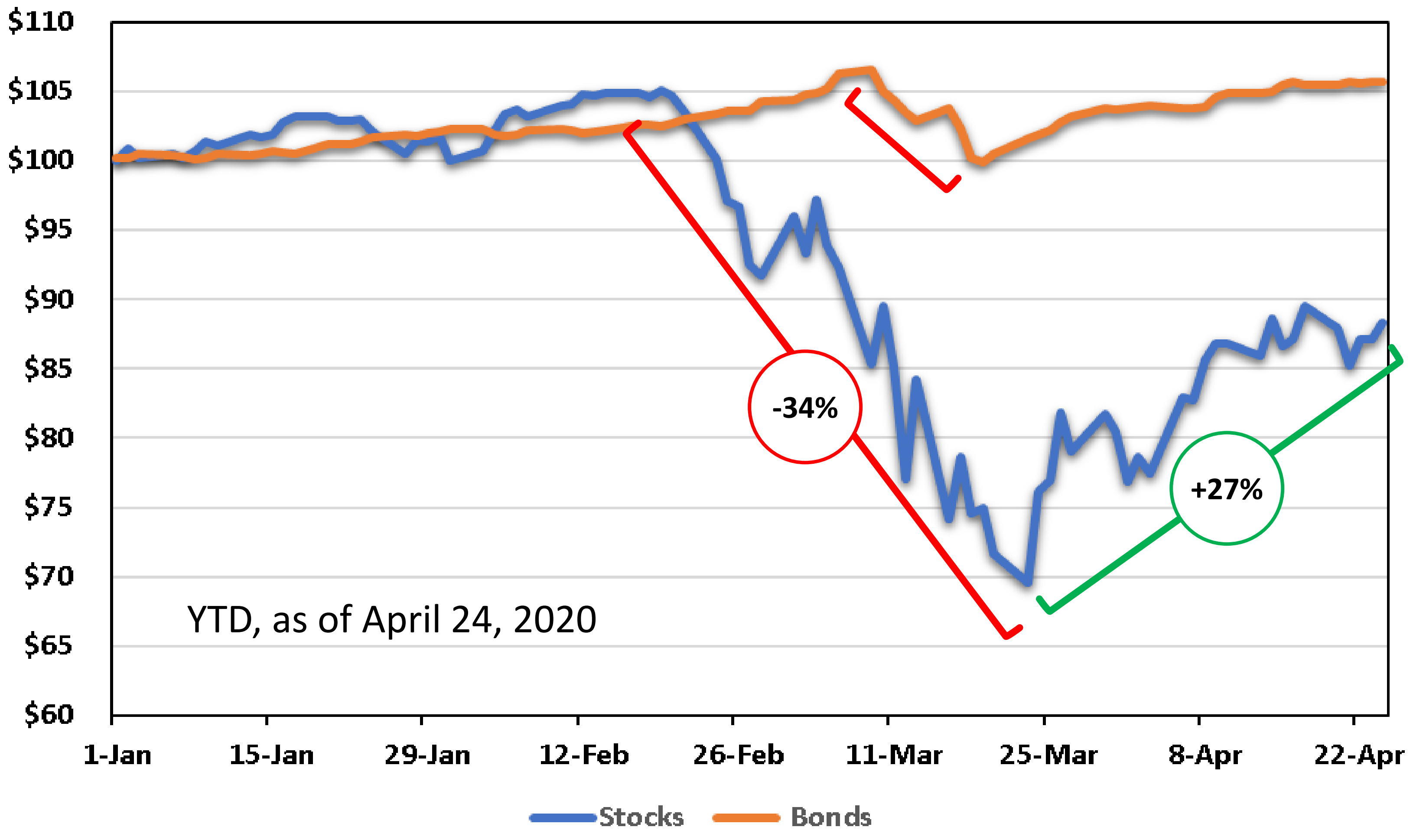
NOTHING BUT RAPID EVENTS AND MARKET VOLATILITY IN 2020

December 31, 2019–March 27, 2020



Sources: World Health Organization, Bloomberg. Franklin Templeton Capital Market Insights Group, MSCI, Macrobond. Indexes are unmanaged, and one cannot invest directly in an index. Past performance is not an indicator or guarantee of future performance. Important data provider notices and terms available at www.franklintempletondatasources.com. For illustrative purposes only and not representative of the performance or portfolio composition of any Franklin Templeton fund.

Impact on Stocks and Bonds



This bounce doesn't mean good news for the economy just yet…

Source: IRON Financial, Bloomberg

The S&P 500 Index and the Bloomberg Barclays Aggregate US Bond Index were used as proxies for the broad US stock and bond markets

Barometer of Various Market Indices - Equities

WEEK ENDING APRIL 24, 2020 (CUMULATIVE TOTAL RETURNS)

Equities[1]	Close	Week		YTD		1-Year	
S&P 500	2,837	▼	-1.30%	▼	-11.7%	▼	-1.1%
DJIA	23,775	▼	-1.90%	▼	-16.1%	▼	-8.4%
NASDAQ	8,635	▼	-0.18%	▼	-3.5%	▲	7.7%
Foreign Stocks		▼	-2.01%	▼	-21.2%	▼	-14.4%
Emerging Markets		▼	-2.39%	▼	-20.7%	▼	-16.4%

Top Three S&P 500 Equity Sectors[1]	YTD	
Health Care	▼	-1.1%
Information Technology	▼	-2.9%
Consumer Staples	▼	-6.0%

Bottom Three S&P 500 Equity Sectors[1]	YTD	
Energy	▼	-41.3%
Financials	▼	-28.8%
Industrials	▼	-23.9%

1. Source: MacroBond Financial AB. S&P 500 is represented by the S&P 500 Index, DJIA is represented by the Dow Jones Industrial Average, NASDAQ is represented by the NASDAQ Composite Index, Foreign Stocks are represented by the MSCI EAFE Index and Emerging Markets are represented by the MSCI Emerging Markets Index. Sectors based on S&P 500 Index sector indexes.
2. Sources: MacroBond Financial AB, Morningstar Inc., Bloomberg LP. 10-Yr Treasury is represented by the MacroBond 10-Year Treasury Bond Index, US Bonds are represented by the Bloomberg Barclays US Aggregate Index, Global Bonds are represented by the Bloomberg Barclays Global Aggregate Index and Munis are represented by Bloomberg Barclays Municipal Bond Index.
3. 10-Year Treasury yield is calculated using the Federal Reserve H.15 Report.
4. Munis yield is calculated using yield-to-worst.
5. Source: MacroBond Financial AB, Federal Reserve (Fed Funds Rate), US Department of Labor (Inflation and Unemployment) and US Bureau of Economic Analysis (GDP).

Barometer of Various Market Indices – Bonds

WEEK ENDING APRIL 24, 2020 (CUMULATIVE TOTAL RETURNS)

Bonds[2]		Week		YTD		1-Year	Yield
10-Yr. Treasury[3]	▲	0.40%	▲	11.0%	▲	17.8%	0.60%
US Bonds	▲	0.24%	▲	5.0%	▲	11.0%	1.39%
Global Bonds	▼	-0.03%	▲	0.7%	▲	5.7%	1.08%
Munis[4]	▼	-0.96%	▼	-1.1%	▲	3.2%	2.10%

1. Source: MacroBond Financial AB. S&P 500 is represented by the S&P 500 Index, DJIA is represented by the Dow Jones Industrial Average, NASDAQ is represented by the NASDAQ Composite Index, Foreign Stocks are represented by the MSCI EAFE Index and Emerging Markets are represented by the MSCI Emerging Markets Index. Sectors based on S&P 500 Index sector indexes.
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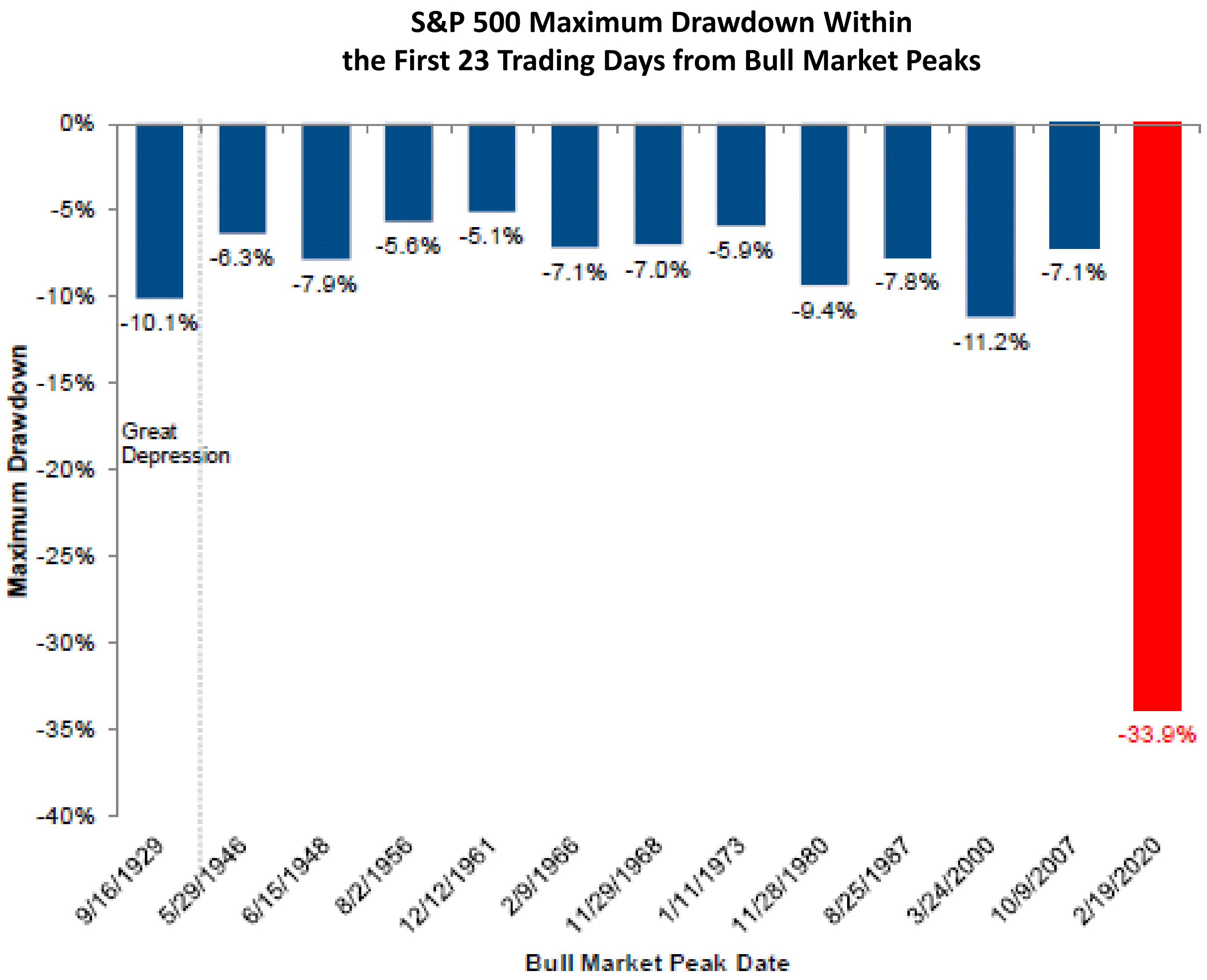
Panic Selling



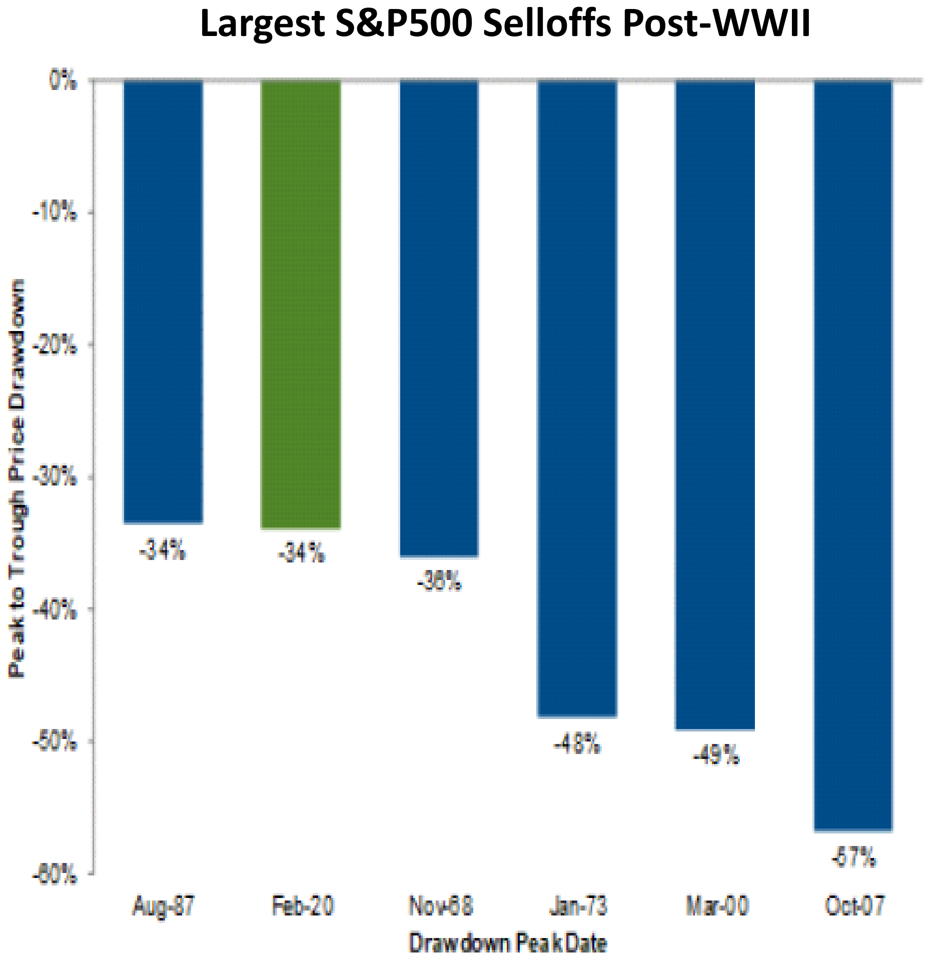
Source: Goldman Sachs, Bloomberg

Breaking it Down

Week	Mon	Tue	Wed	Thu	Fri	Week Total
March 2-6	+5.09%	-2.94%	+4.53%	-3.58%	-0.98%	-3.14%
March 9-13	-7.79%	+4.89%	-5.86%	-9.99%	+9.36%	-10.36%
March 16-20	-12.9%	+5.2%	-6.3%	+0.95%	-4.6%	-17.3%
March 23-27	-3.0%	+11.4%	+2.4%	+6.4%	-4.0%	+12.8%
March 30-April 3	+3.2%	-1.8%	-4.4%	+2.2%	-1.7%	-2.7%
April 6 - 9	+7.7%	-0.1%	+3.4%	+1.2%	H	+12.7%

Source: IRON Financial, Bloomberg

A Historical Perspective



Sources: Goldman Sachs Investment Strategy Group, Bloomberg

Worst Days

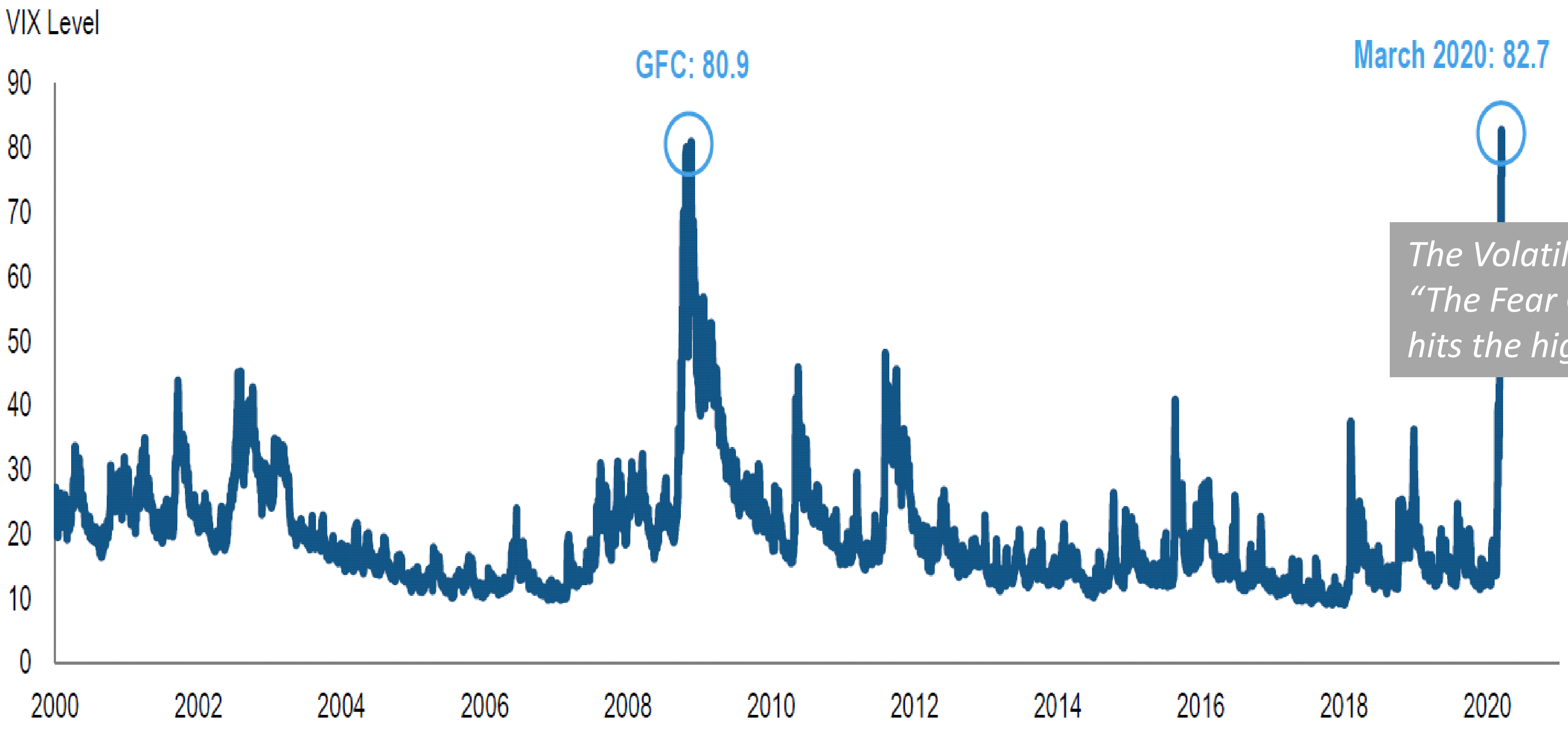
Calendar Days	S&P 500 Decline	Return 1 year later
10/19/1987	-20.5%	23.1%
3/16/2020	-12.0%	?
3/12/2020	-9.5%	?
10/15/2008	-9.0%	20.8%
12/01/2008	-8.9%	35.9%
09/29/2008	-8.8%	-4.1%
10/26/1987	-8.3%	23.5%
10/09/2008	-7.6%	17.8%
3/9/2020	-7.6%	?
10/27/1997	-6.9%	21.5%
08/31/1998	-6.8%	38.0%
01/08/1988	-6.8%	15.3%
11/20/2008	-6.7%	45.1%
05/28/1962	-6.7%	26.7%
08/08/2011	-6.7%	25.2%
Average	**-8.9%**	**24.1%**

Worst Weeks

Calendar Week	S&P 500 Decline	Return 1 year later
10/5/2008	-18.2%	19.2%
3/15/2020	-15.0%	?
10/18/1987	-12.2%	13.7%
9/16/2001	-11.6%	-12.5%
2/23/2020	-11.5%	?%
4/9/2000	-10.5%	-12.8%
9/28/2008	-9.4%	-6.7%
10/11/1987	-9.1%	-2.2%
3/8/2020	-8.8%	?
9/8/1974	-8.7%	27.8%
11/16/2008	-8.4%	36.4%
7/14/2002	-8.0%	17.2%
9/7/1986	-7.9%	39.6%
6/25/1950	-7.6%	18.5%
9/22/1974	-7.4%	32.7%
Average	**-9.2%**	**14.2%**

Sources: BlackRock; Morningstar as of 3/22/20. U.S. stocks are represented by the S&P 500 Index. Index performance is for illustrative purposes only. It is not possible to invest directly in an index. Performance does not guarantee or indicate future results. *Indicates principal return, dividends not included.

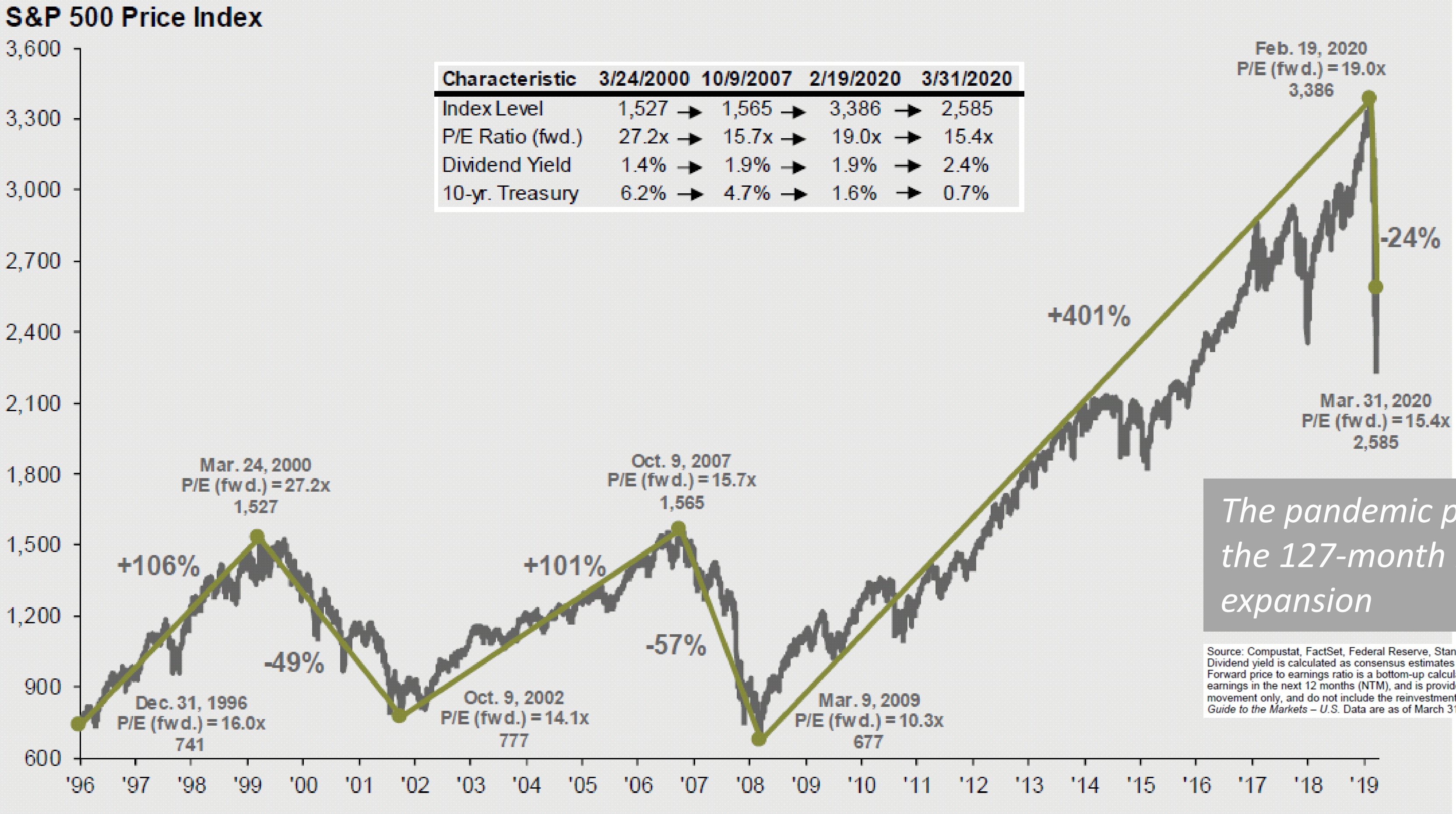
Panic From the Lens of Market Volatility



The Volatility Index (VIX), aka "The Fear Gauge of the Market," hits the highest level.

Source: FactSet. Based on daily data through March 20, 2020.

All Good Things Must Come to an End



Characteristic	3/24/2000	10/9/2007	2/19/2020	3/31/2020
Index Level	1,527 →	1,565 →	3,386 →	2,585
P/E Ratio (fwd.)	27.2x →	15.7x →	19.0x →	15.4x
Dividend Yield	1.4% →	1.9% →	1.9% →	2.4%
10-yr. Treasury	6.2% →	4.7% →	1.6% →	0.7%

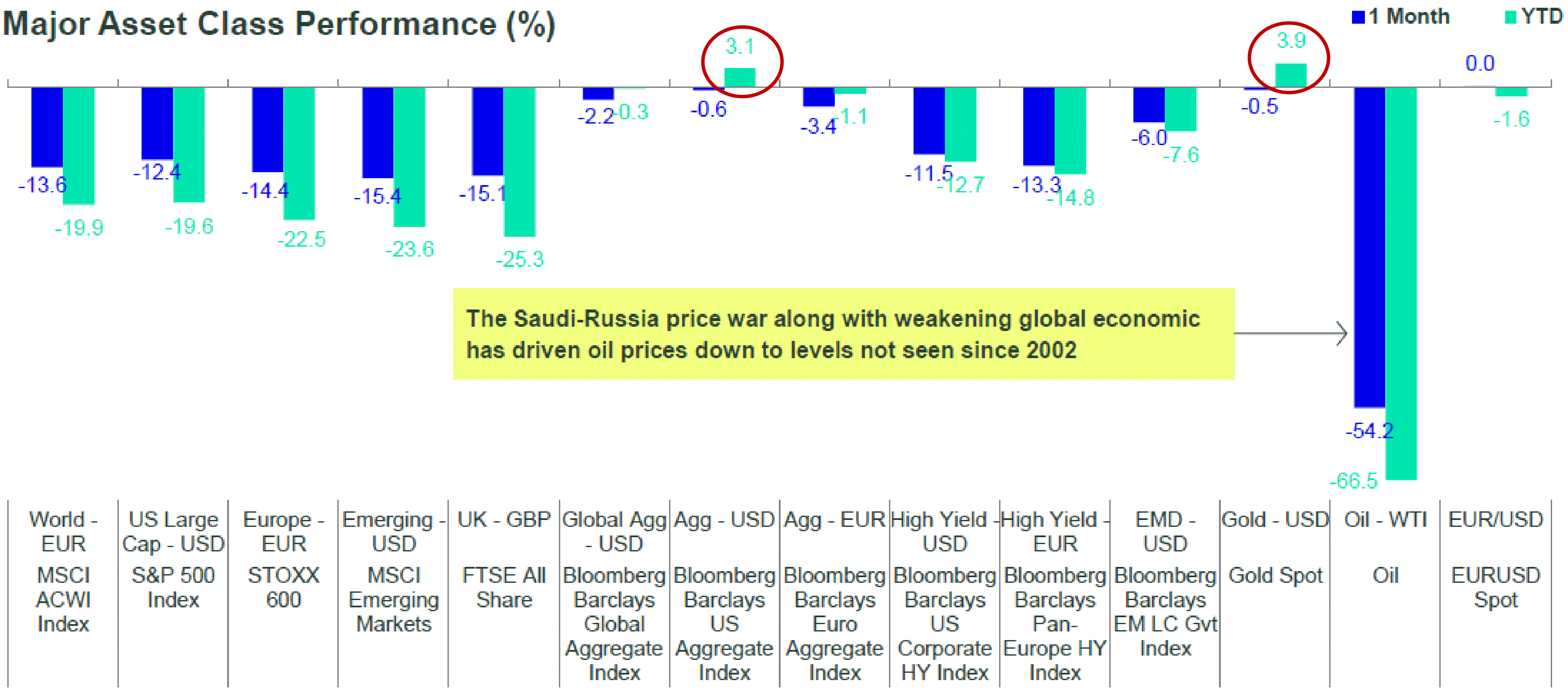
The pandemic pulled the plug on the 127-month long economic expansion

Source: Compustat, FactSet, Federal Reserve, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of March 31, 2020.

Panic Selling Broad Based Across Investment Universe

- Market selloff brought back memories of 2008-2009 as risk assets fell sharply and investors sought the safety of Treasury and government-backed debt
- The selloff has wiped out longer-term returns for many global investors; within equities, only the US still has a positive 3- and 5-year return

Panic Selling Broad Based Across Investment Universe



Source: Bloomberg Finance, L.P., as of 31 March 2020. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Performance returns for periods of less than one year are not annualised.

Small-Cap & Value-Oriented Stocks Drop - Domestic

Domestic Equity Performance (as of March 31, 2020)

Quarter

	Value	Blend	Growth
Large Cap	-26.79%	-20.89%	-15.54%
Mid Cap	-32.58%	-28.36%	-20.74%
Small Cap	-36.97%	-32.44%	-24.67%

1 Year

	Value	Blend	Growth
Large Cap	-17.78%	-9.88%	-3.81%
Mid Cap	-25.50%	-20.87%	-11.23%
Small Cap	-31.85%	-26.35%	-17.79%

Sources: IRON Financial, Morningstar

Small-Cap & Value-Oriented Stocks Drop - Foreign

Foreign Equity Performance (as of March 31, 2020)

Quarter

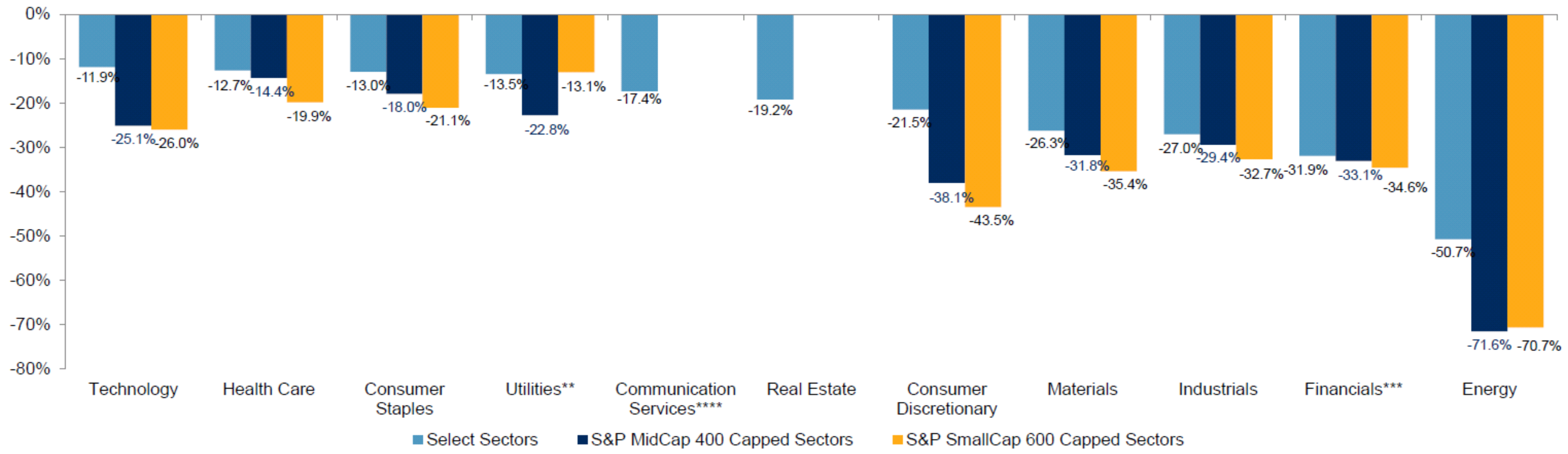
	Value	Blend	Growth
Large Cap	-27.31%	-23.43%	-19.10%
Small/Mid	-30.49%	-28.34%	-24.47%

1 Year

	Value	Blend	Growth
Large Cap	-21.11%	-15.64%	-8.38%
Small/Mid	-23.91%	-20.43%	-14.57%

Sources: IRON Financial, Morningstar

All 11 S&P Sectors Posted Negative Returns

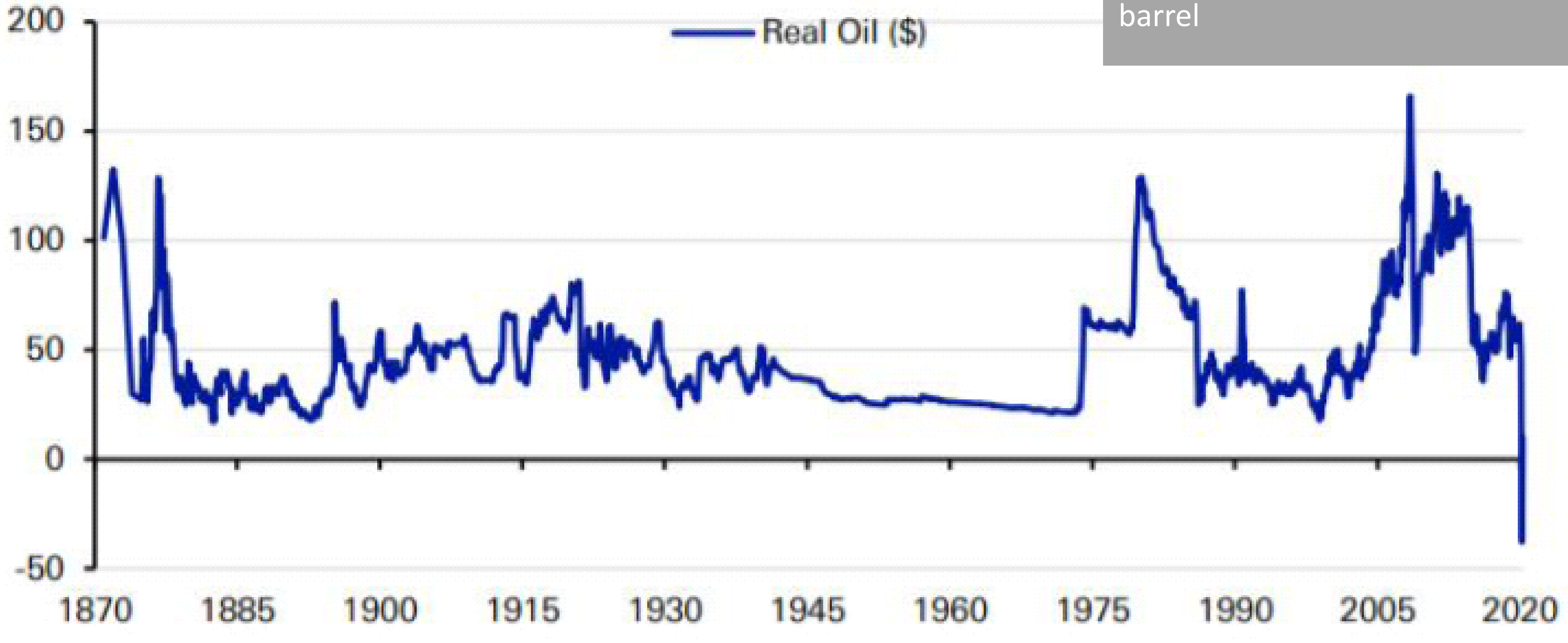


SECTOR	Select Sectors		
	MTD	YTD	12M
Consumer Discretionary	-14.90%	-21.47%	-12.50%
Consumer Staples	-5.43%	-12.98%	-0.05%
Energy	-35.31%	-50.75%	-52.54%
Financials***	-21.31%	-31.92%	-17.15%
Real Estate	-14.95%	-19.21%	-11.32%
Health Care	-3.82%	-12.67%	-1.01%
Industrials	-19.18%	-27.05%	-19.47%
Materials	-14.16%	-26.28%	-16.84%
Technology	-8.64%	-11.93%	10.43%
Utilities**	-9.98%	-13.48%	-1.38%
Communication Services****	-12.74%	-17.39%	-4.43%

Source: S&P Dow Jones Indices,
Data as of 3/31/2020

Crude Awakening of Crude

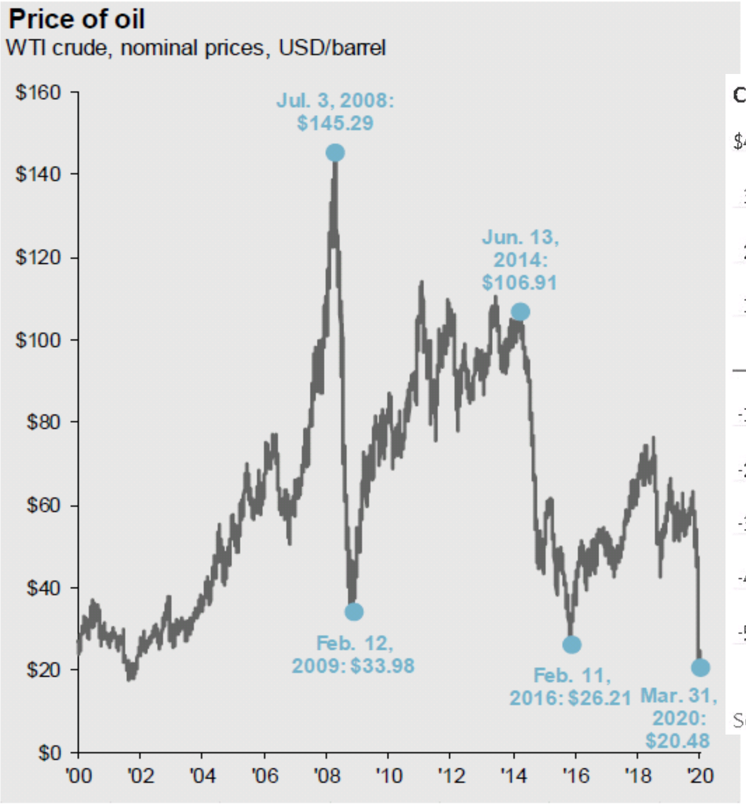
About 150-years of oil-price history got crushed: crude's spectacular plunge below $0 a barrel

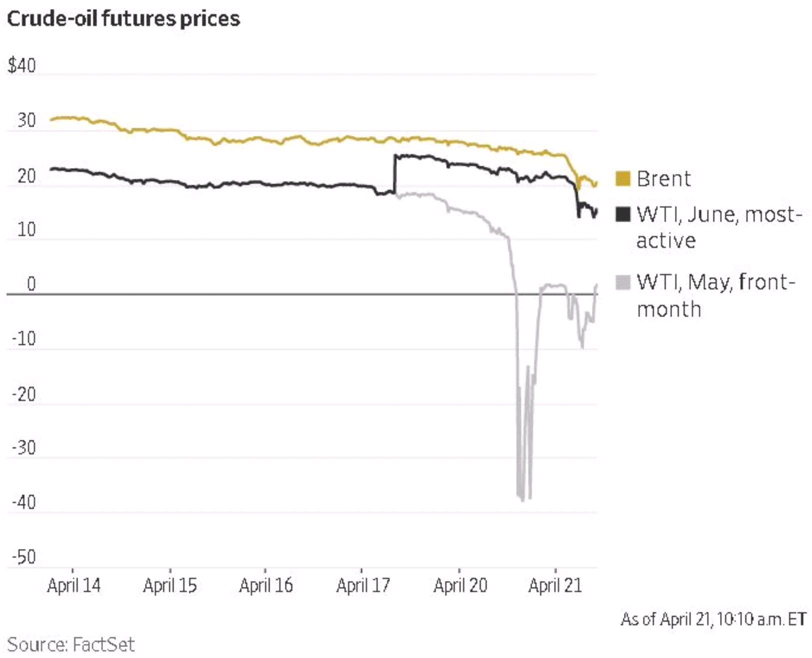


Source :Deutsche Bank, Global Financial Data

Crude Awakening of Crude

- The price war between Saudi Arabia and Russia led to a glut of oil supply while demand was destroyed by the Coronavirus pandemic, forcing some energy companies into possible bankruptcy as storages reach maximum capacity.
- On April 20, the U.S. oil benchmark crashed below $1 a barrel, on track for lowest close and biggest one-day fall on record.





Corporate Bond Sectors Nosedive

Exception!

Individual FI Sectors	Q1 2020	2019	2018	2017	2016
Long U.S. Treasuries	20.9	14.8	-1.84	8.53	1.3
U.S. Treasuries	8.20	6.86	0.86	2.31	1
Mortgage-Backed (Agency)	2.82	6.35	0.99	2.47	1.7
CMBS	1.19	8.29	0.78	3.35	3.3
Municipal Bonds	-0.63	7.54	1.28	5.45	0.3
EM Local (Hedged)	-1.43	9.14	0.75	3.68	4.7
U.S. IG Corporate Bonds	-3.63	14.5	-2.51	6.42	6.1
U.S. Long IG Corporates	-4.51	23.9	-7.24	12.09	11
European IG Corporate	-6.15	6.24	-1.25	2.41	4.7
EM Currencies	-8.48	5.2	-3.33	11.54	3.5
U.S. High Yield Bonds	-13.12	14.4	-2.26	7.48	17.5
U.S. Leveraged Loans	-13.19	8.17	1.14	4.09	9.9
EM Debt Hard Currency	-13.39	15.04	-4.26	10.26	10.2
European Leveraged Loans	-14.40	4.38	1.25	3.72	7
European High Yield Bonds	-14.50	11.4	-3.35	6.79	10.8
Multi-Sector	**Q1 2020**	**2019**	**2018**	**2017**	**2016**
U.S. Aggregate	3.15	8.72	0.01	3.54	2.7
Global Agg. Hedged	1.45	8.22	1.76	3.04	4
Global Agg. (Unhedged)	-0.33	6.84	-1.2	7.39	2.1
Yen Aggregate	-0.34	1.64	0.93	0.18	3
Euro Aggregate	-1.13	5.98	0.41	0.68	3.3

Global Leveraged Finance

	Total Return (%)	Spread Change (bps)	OAS/DM (bps)
	Q1	Q1	3/31/2020
U.S. High Yield	-13.12	+517	911
Euro High Yield	-14.50	+455	779
U.S. Leveraged Loans	-13.19	+513	974
Euro Leveraged Loans	-14.40	+576	998

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures. *All investments involve risk, including possible loss of capital. Sources: ICE BofAML and Credit Suisse as of March 31, 2020. An investment cannot be made directly in an index. European returns are euro hedged.*

"Leverage" quickly became a market foe

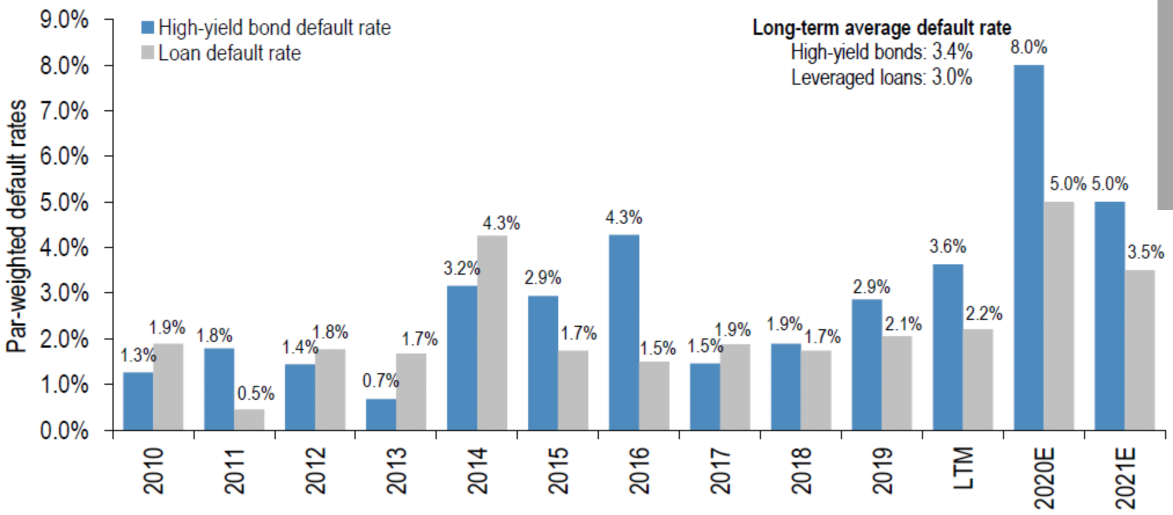
Other Sectors	Q1 2020	2019	2018	2017	2016
U.S. Dollar	2.76	1.35	4.9	-7.85	3.2
3-month LIBOR	0.43	2.4	2.23	1.22	0.7
S&P 500 Index	-20.00	32.6	-4.4	21.26	10.6

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures and full index names. *All investments involve risk, including possible loss of capital. Sources: Bloomberg Barclays except EMD (J.P. Morgan), HY (ICE BofAML), Bank Loans (Credit Suisse). Performance is for representative indices as of March 31, 2020. An investment cannot be made directly in an index.*

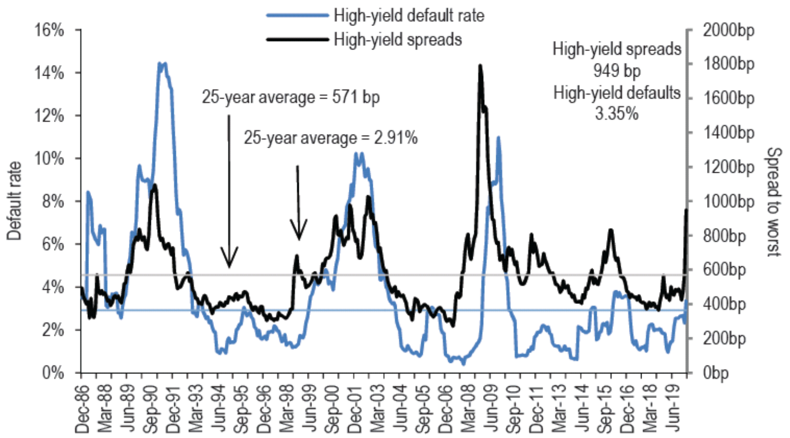
"Green Back" proved its prowess during the Covid Crisis

HY, Leveraged Bank Loan Default Rates Storm

Bond spreads widened (prices fell), but the Fed's forthcoming action to buy recently fallen angles (BBB-) and BB-rated high-yield bonds is temporarily holding further fallout

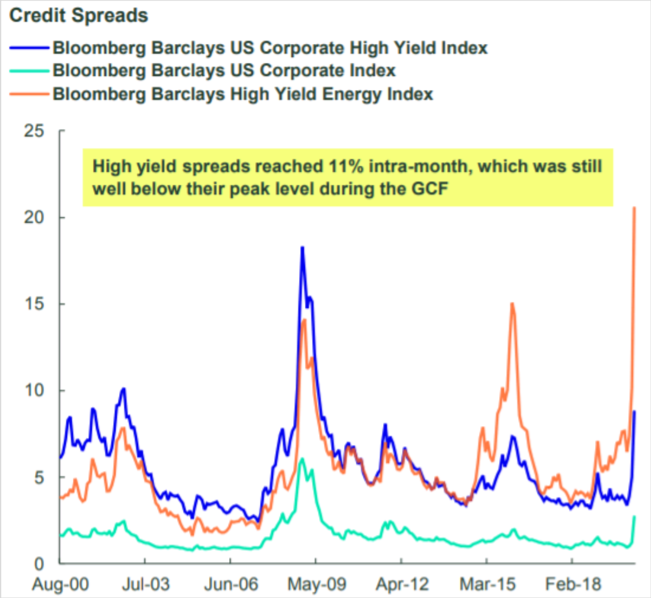


Source: J.P. Morgan.



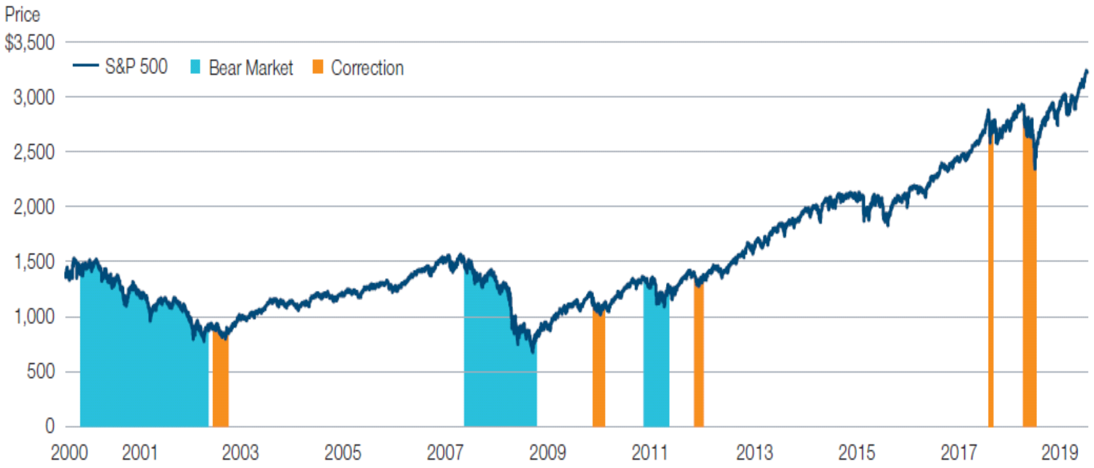
Note: Default rate is par-weighted

Source: J.P. Morgan; Moody's Investors Service



What Past Crashes Can Teach Us

BEAR MARKETS AND CORRECTIONS JANUARY 2000–DECEMBER 2019

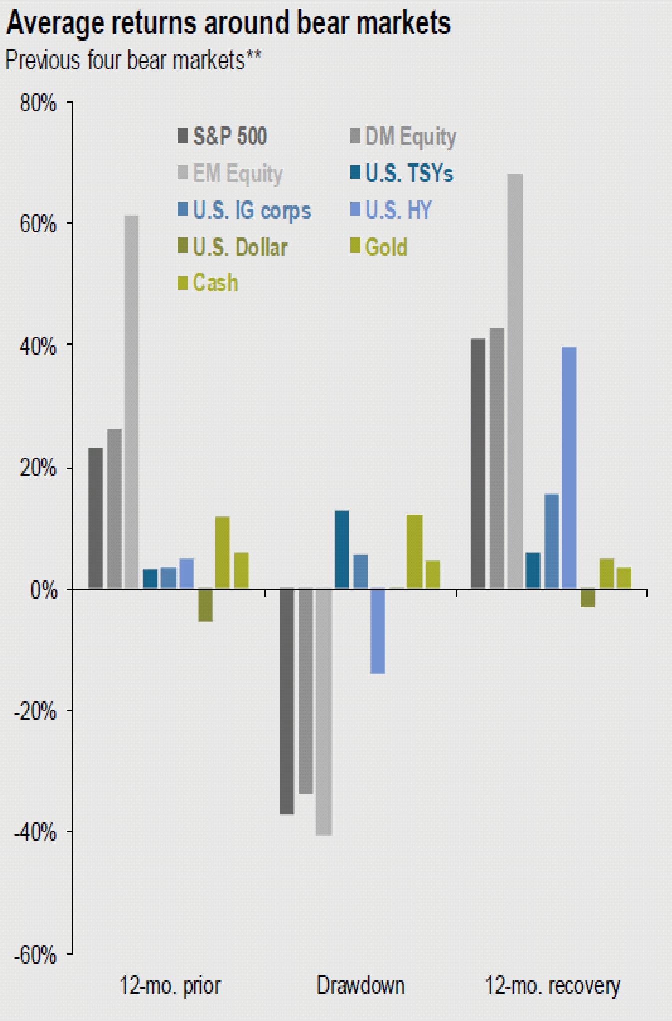


Event	Date	Duration	% Drop	Recovery	% cumulative gain after trough: 1 Year	3 Years	5 Years
Tech Bubble Crash	4/7/00–10/9/02	2.5 years	-48.77	5 years	33.73%	52.86%	101.50%
Pre-Iraq War	11/27/02–3/11/03	3.5 months	-14.71	2.5 months	38.22	60.37	64.93
Global Financial Crisis	10/9/07–3/5/09	1.5 years	-56.39	4 years	66.83	99.89	174.53
Greek Debt Crisis/Flash Crash	4/15/10–7/2/10	2.5 months	-15.61	4 months	30.83	57.84	103.09
Debt Ceiling Debate/S&P Downgrade	4/29/11–10/3/11	5 months	-19.39	3 months	32.00	79.03	96.61
Post QE/China Growth Slowdown	8/10/15–2/11/16	6 months	-13.07	4 months	27.29	48.15	N/A
Jan/Feb 2018 Correction	1/26/18–2/8/18	0.5 months	-10.16	6.5 months	4.92	N/A	N/A
Q4 2018 Sell-Off	9/20/18–12/24/18	2 months	-19.78	4 months	37.10	N/A	N/A

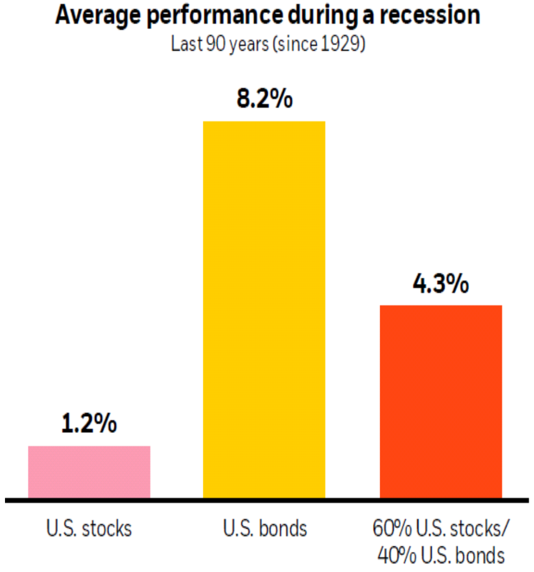
Drop is based on the percentage drop from the highest market index value just prior to the correction to the lowest market index value. Recovery is defined as the length of time for the market to return to the previous highest market index value, rounded to the nearest number of months.
Sources: T. Rowe Price; S&P. See Additional Disclosures.

Performance During Recessions

Since 1987



Since 1929



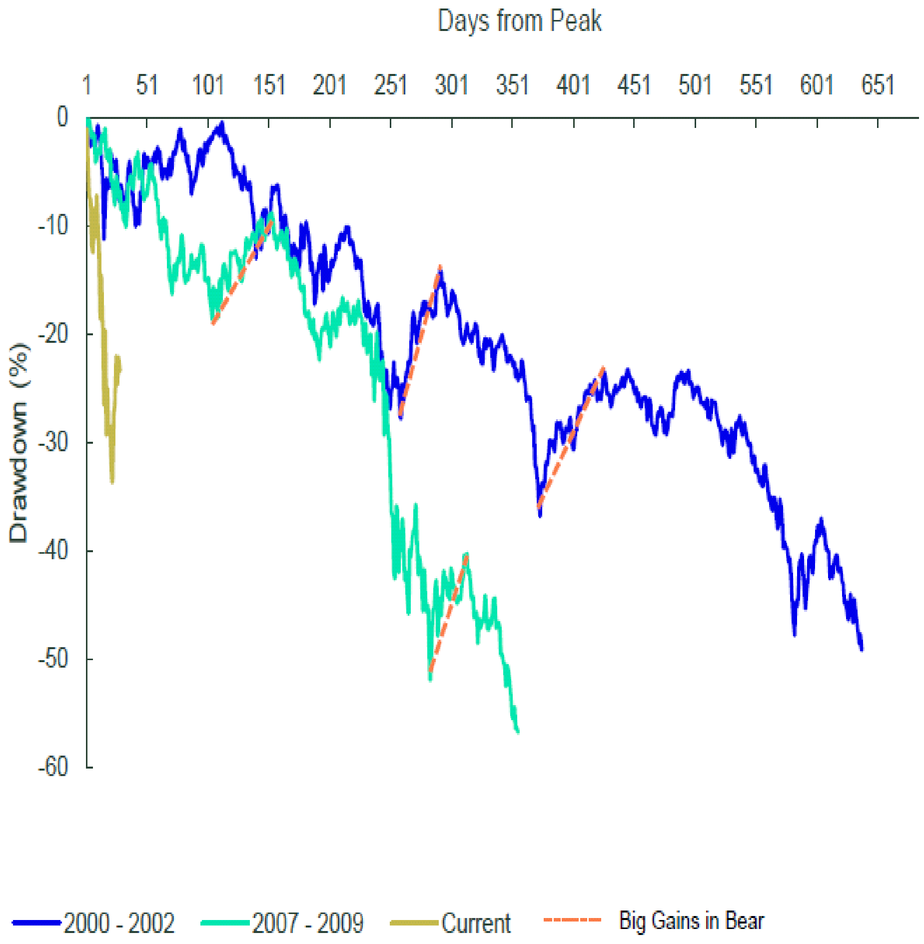
Recessions	U.S. stocks	U.S. bonds	60/40 portfolio
9/1/29 to 3/31/33	-33.6%	4.9%	-19.1%
6/1/37 to 6/30/38	-22.4%	6.4%	-9.9%
3/1/45 to 10/31/45	19.5%	1.0%	12.4%
12/1/48 to 10/31/49	15.2%	2.5%	10.1%
8/1/53 to 5/31/54	24.2%	5.1%	16.6%
9/1/57 to 4/30/58	-1.5%	9.7%	3.3%
5/1/60 to 2/28/61	20.3%	7.2%	14.9%
1/1/70 to 11/30/70	-2.0%	16.2%	5.3%
12/1/73 to 3/31/75	-5.9%	5.7%	0.0%
2/1/80 to 7/31/80	9.6%	9.5%	9.5%
8/1/81 to 11/30/82	10.5%	29.1%	17.9%
8/1/90 to 3/31/91	8.0%	7.5%	8.1%
4/1/01 to 11/30/01	-0.9%	5.9%	1.9%
1/1/08 to 6/30/09	-25.0%	4.8%	-11.5%
Average	1.2%	8.2%	4.3%

**Previous four bear markets are the GFC ('08-'09), tech-bubble ('00-'01), 1990 and the flash crash ('87). Drawdowns are measured from market peak to market trough. EM equity returns do not include the 1987 bear market due to data availability. Past performance is not indicative of future returns. *Guide to the Markets – U.S.* Data are as of March 31, 2020.

Morningstar as of 12/31/19. Stock market represented by S&P 500. Stocks represented by the IA US Large Cap TR Index and US Bonds by the IA US IT Gov Bond Tr Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

Predictable Bear Markets

S&P 500 Drawdowns during Historical Economic Recessions



Source: FactSet. as of March 31, 2020. Past performance is not a guarantee of future results.

Max Gains During Bear Markets

Bear Market Start	Max Drawdown	Max Gains during Bear Market	Max Gains Period (Days)
1/11/1973	-48%	10%	37
11/28/1980	-27%	11%	45
8/25/1987	-34%	15%	2
3/24/2000	-49%	21%	75
10/9/2007	-57%	24%	33
2/20/2020	-34%	17%	3

Max gains represents the biggest rebound during a bear market after which a new bear market low is established

Historically, big bounces during bear markets are not uncommon, as investors embrace optimism around monetary and fiscal supports

Impulse Behavior

- During market melt-ups (FOMO) and meltdowns(Loss Aversion), emotions can start to impact your time horizon – that's very human
- When the stock market takes a dip, moving to cash can be a tempting option for investors seeking a respite from volatility
- However, cashing out of a declining market could come at a cost. Although past performance cannot guarantee future results, history shows that stock markets eventually recover
- Investors who cash out not only could lock in investment losses but could miss out on longer-term gains as the market recovers, hurting their chances of achieving long-term financial success

Impulse Behavior

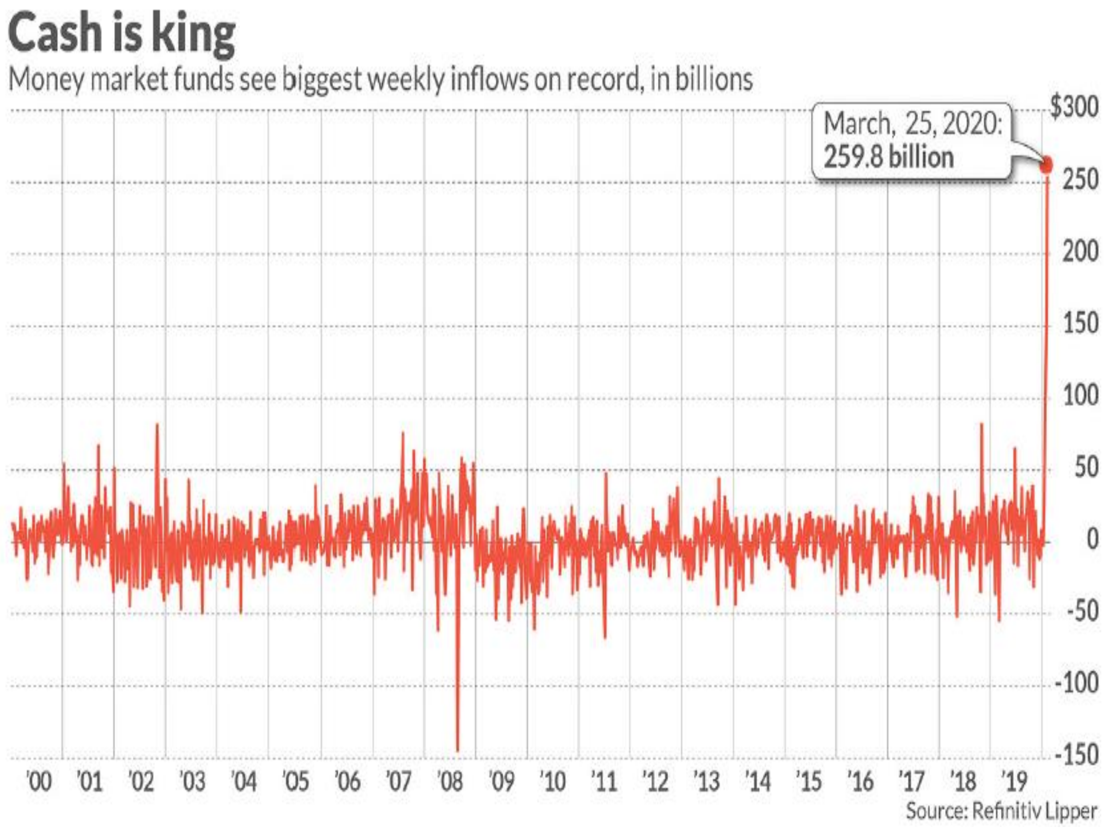
Timing the market is hugely challenging, if not impossible

Trying to time the market can result in two types of losses. First, converting stocks to cash after they have lost value can lock in those losses. Second, you could miss out on gains when the market rallies if you wait too long to get back in.

Short-term pain, long-term gain

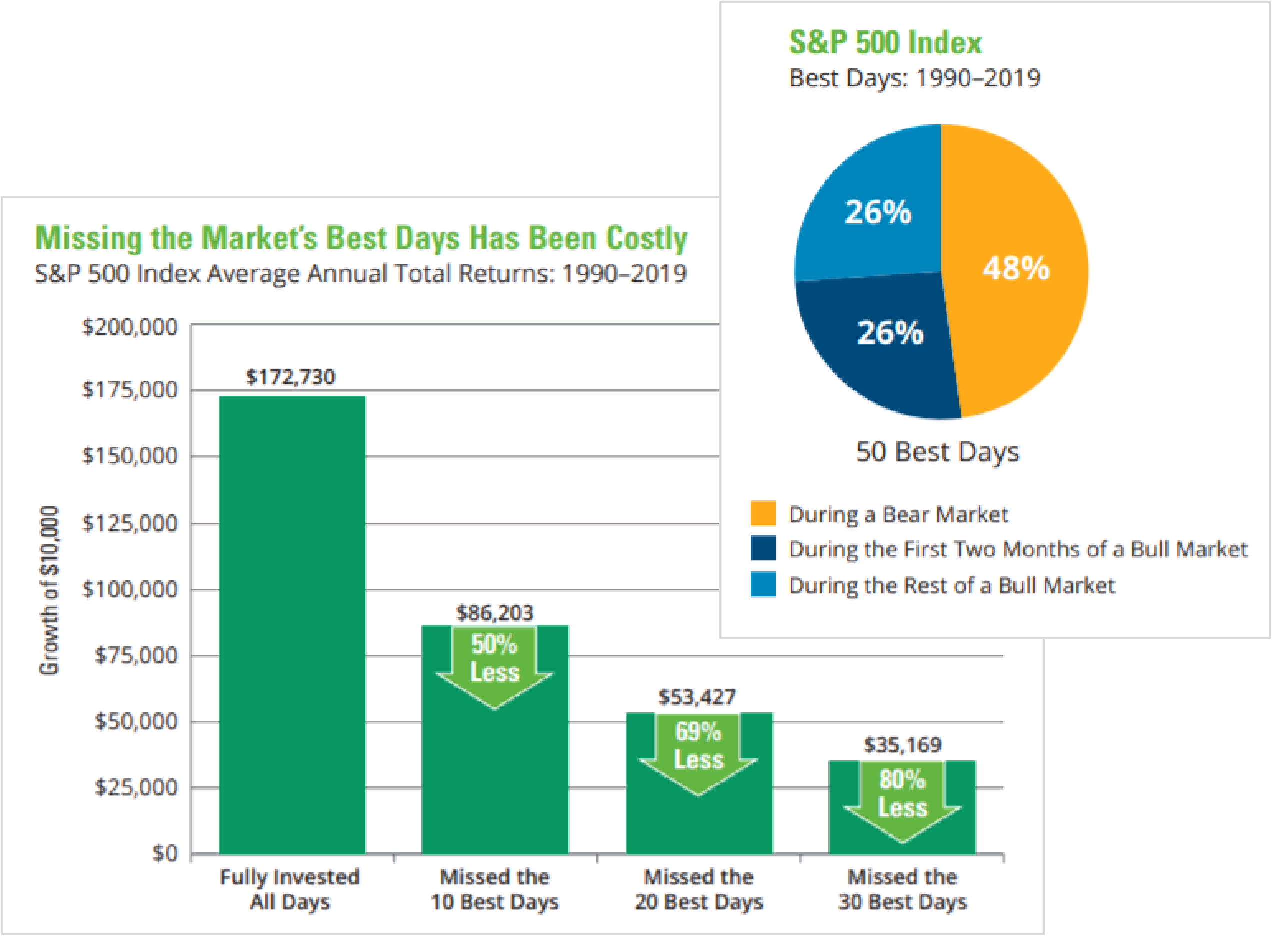
Remember, long-term investment goals require a long-term perspective, particularly during periods of heightened market volatility.

While it's hard to watch your portfolio fluctuate with the ups and downs of the market, sticking with your long-term strategy can pay off over time.



Waiting on the Sidelines

- It’s no fun watching an investment drop in value. Yet selling it does nothing more than lock in the loss and prevent you from profiting from any subsequent gains
- Gains often occur during a few strong, but unpredictable, trading days. Benefiting from those days requires you to be in the market for the long term
- March 24th felt like one of these “best” days!



Past performance does not guarantee future results. For illustrative purposes only. Indices are unmanaged and not available for direct investment. | Data sources: Ned Davis Research, Morningstar, and Hartford Funds, 1/20

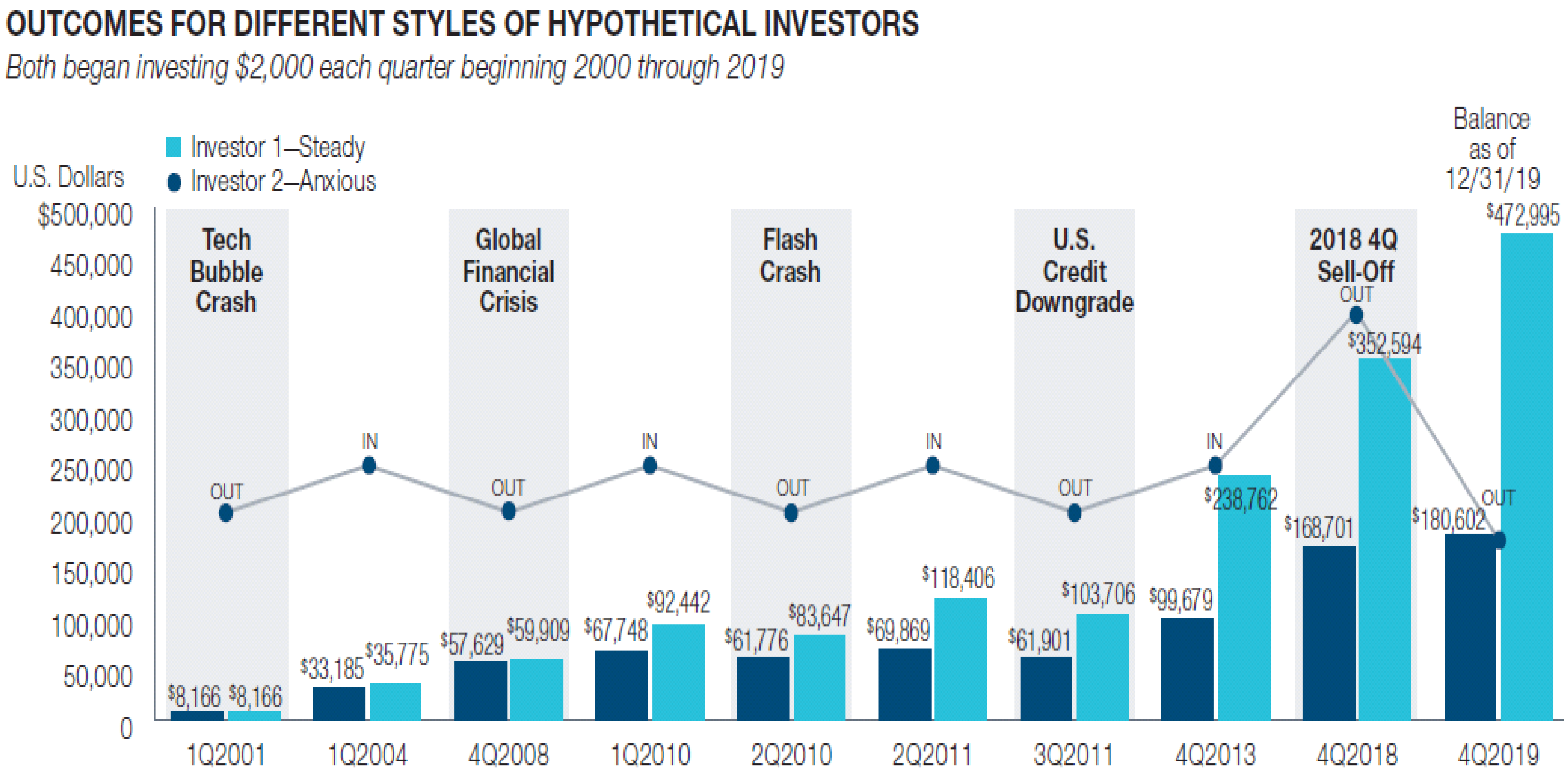
A Tale of Two Investors

Investor #1 is steady and she sticks to the investment strategy despite market fluctuations

Investor #2 is nervous and he becomes anxious during volatile markets and jumps in and out

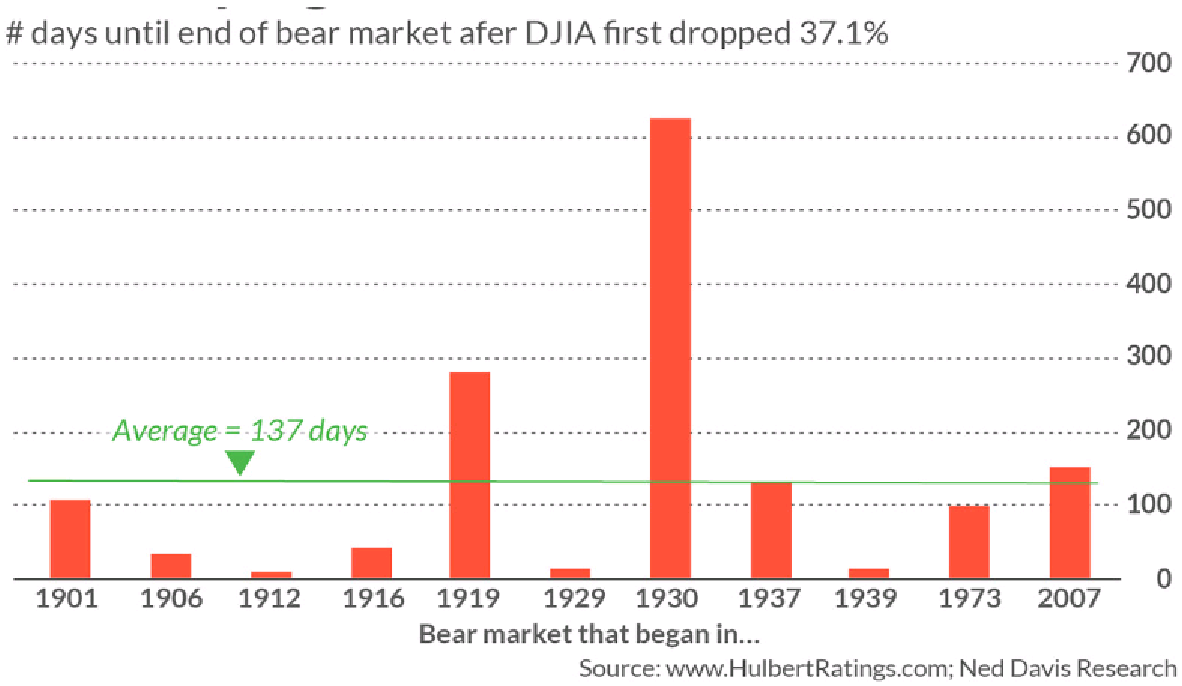
The anxious investor moved his account balance and contributions to cash when stocks dropped 10% or more in a quarter and only jumped back into equities after a fourth consecutive quarter of positive returns. This behavior was repeated throughout several market cycles. While both investors saw their portfolio balances decline during downturns, they continued to contribute to their accounts. The steady investor took advantage of lower stock prices through her ongoing contributions and was rewarded as the market recovered.

A Tale of Two Investors

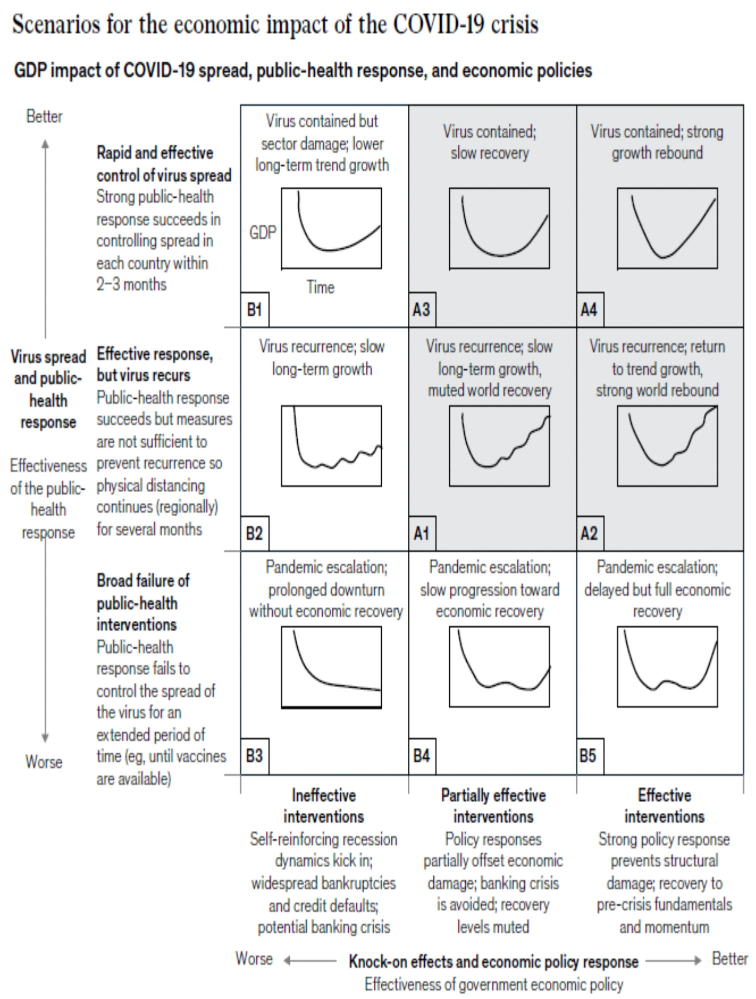


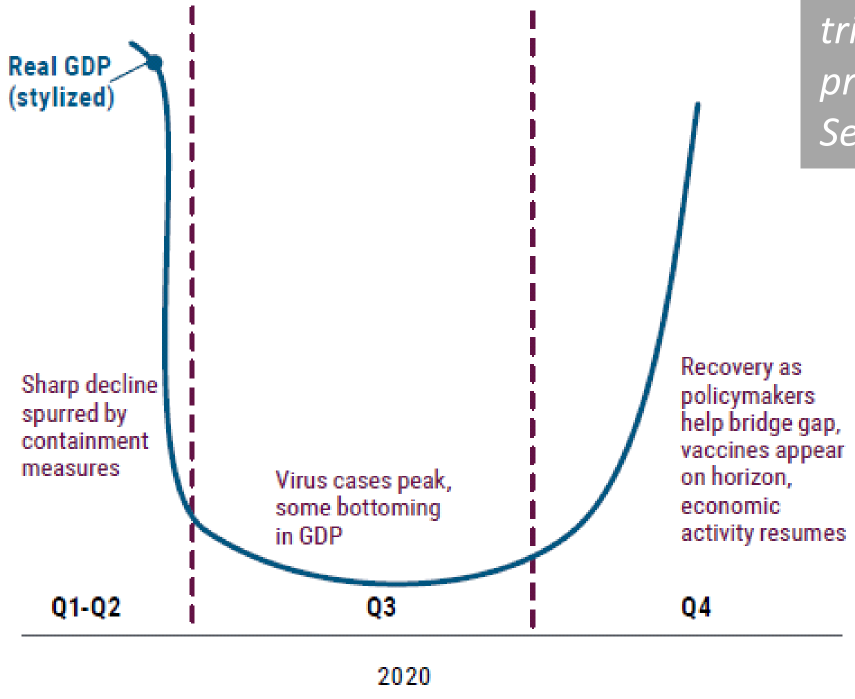
What's next?

- We don't know what kind of recession will this be, and what kind of recovery follows?
- Investors see the light at the end of the tunnel after a brutal selloff. But is it an oncoming train?
- The worst-case scenario was that an economic recovery wouldn't take hold until next year
- Stocks tend to peak before the onset of an economic recession and bottom before an economic recovery — the unique nature of the ongoing COVID-19 epidemic has made forecasting an eventual stock-market recovery particularly difficult



Potential Scenarios



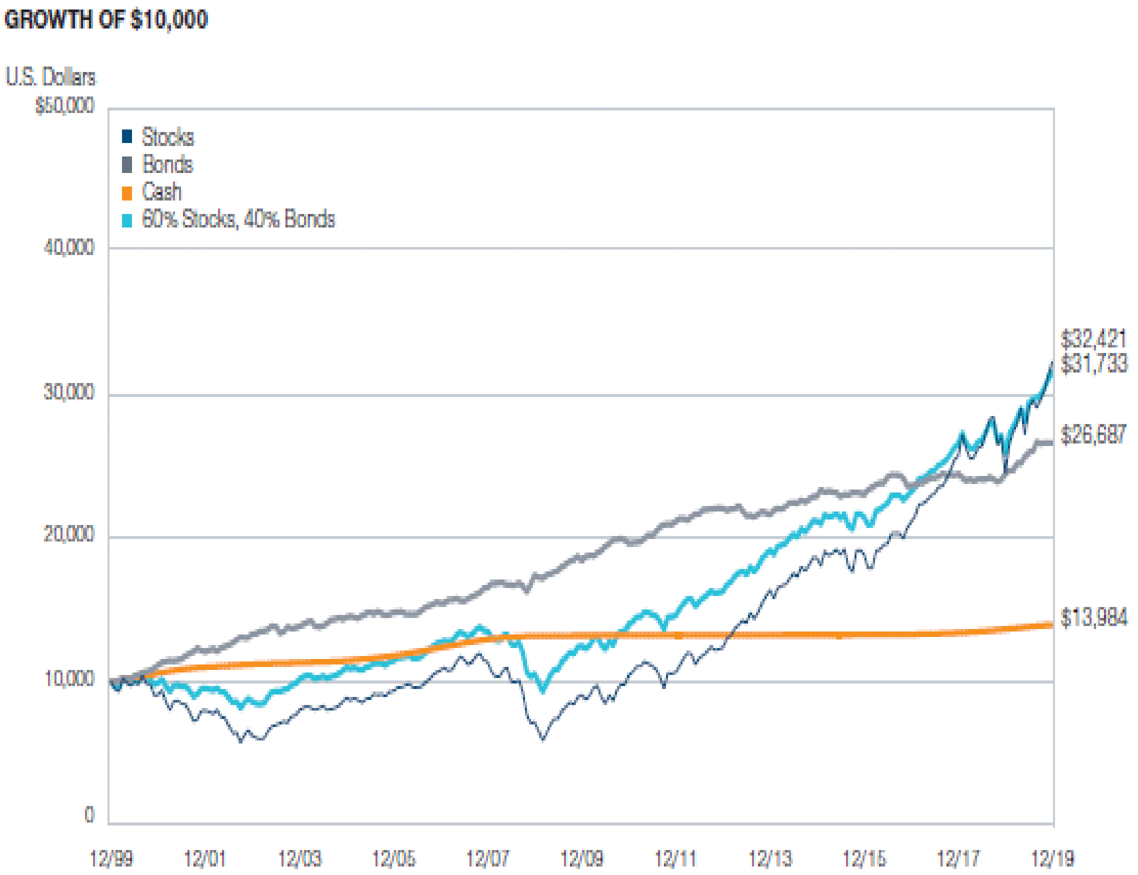


Source: PIMCO. **For illustrative purposes.**

L-Shaped Recovery can trigger a deep and prolonged recession – a Secular Bear Market!

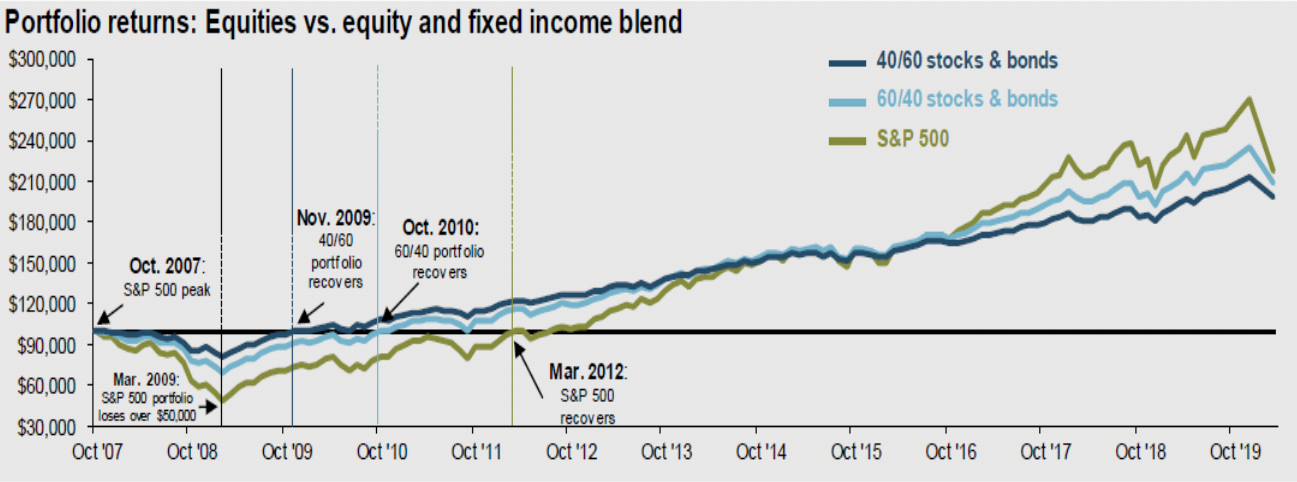
Long-Term Perspective is Key

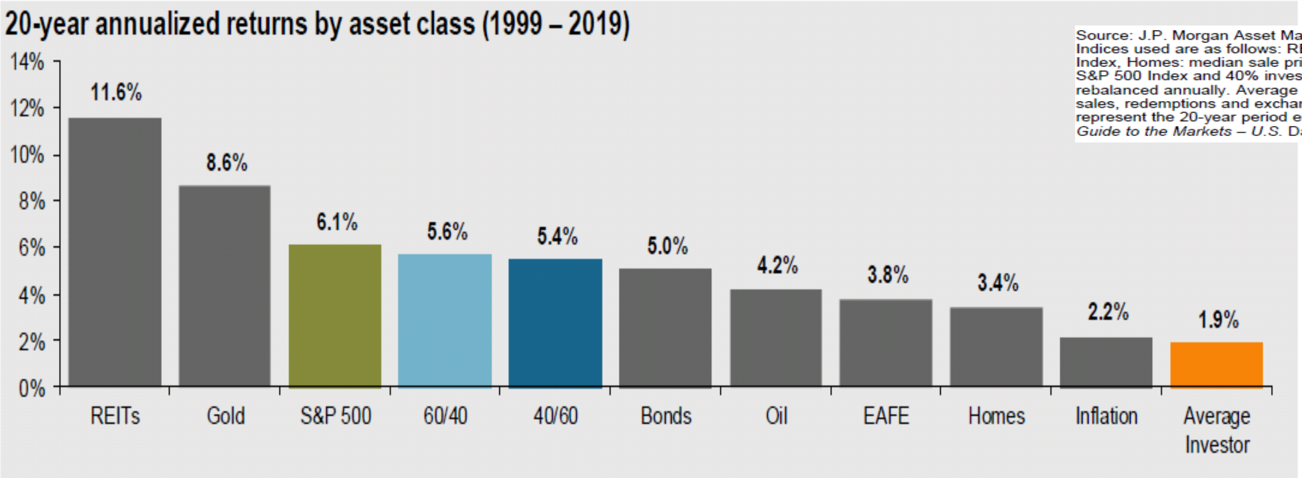
- Stay invested to take advantage of the stock market's growth potential.
- Although the stock market has experienced two significant downturns since 2000, it bounced back each time and eventually reached higher levels.
- Over a long-term time horizon, stocks provide a higher return potential when compared with bonds or cash.
- The light blue line represents a 60/40 allocation of stocks and bonds, which has returned comparable gains with less volatility than an all-stock portfolio.



Source: T. Rowe Price, created with Zephyr StyleADVISOR; S&P; Bloomberg Barclays Index Services Ltd. and FTSE. See Additional Disclosures. **Past performance cannot guarantee future results.** It is not possible to invest directly in an index. Chart is shown for illustrative purposes only. Stocks: S&P 500 Index, Bonds: Bloomberg Barclays US Aggregate Bond Index, and Cash: FTSE 3 Month US T-Bill Index. Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, "Barclays"), used under license. Bloomberg, or Bloomberg's licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

Combining Diversification & Long-Term Holdings





Source: J.P. Morgan Asset Management; (Top) Barclays, Bloomberg, FactSet, Standard & Poor's; (Bottom) Dalbar Inc.
Indices used are as follows: REITS: NAREIT Equity REIT Index, EAFE: MSCI EAFE, Oil: WTI Index, Bonds: Bloomberg Barclays U.S. Aggregate Index, Homes: median sale price of existing single-family homes, Gold: USD/troy oz., Inflation: CPI. 60/40: A balanced portfolio with 60% invested in S&P 500 Index and 40% invested in high-quality U.S. fixed income, represented by the Bloomberg Barclays U.S. Aggregate Index. The portfolio is rebalanced annually. Average asset allocation investor return is based on an analysis by Dalbar Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/19 except the average investor which is through 12/31/18 and is based on Dalbar's most recent analysis. *Guide to the Markets – U.S.* Data are as of March 31, 2020.

Coming Out in the End

40% U.S. stocks, 15% international stocks, 5% small cap stocks, 30% U.S. bonds, 10% high yield bonds

Years	S&P 500	Diversified Portfolio	
2000*–2002	(40.1%)	(18.6%)	"I lost money"
2003–2007	+82.9%	+73.8%	"I didn't make as much"
2008	(37.0%)	(24.0%)	"I lost money"
2009–2019	+351.0%	+191.7%	"I didn't make as much"
2020**	(28.3%)	(19.8%)	"I lost money"
Total Return	**+133.7%**	**+157.9%**	**"Diversification wins even when it feels like its losing"**
Gr $100K	**$222,883**	**$251,467**	

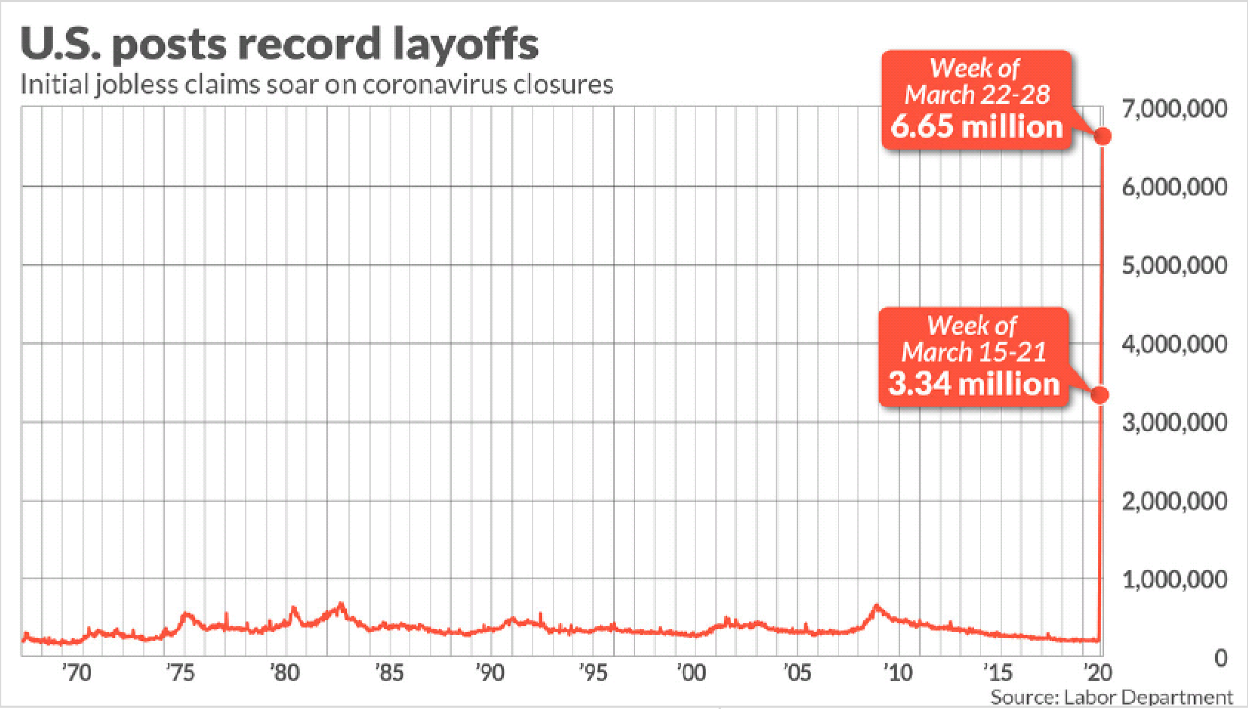
Source: Morningstar as of 3/22/20. *Performance is from 2/22/2000 to 3/31/2000 to more accurately reflect the time period encompassing the previous two bull and bear markets. Past performance does not guarantee or indicate future results. Diversified Portfolio is represented by 40% S&P 500 Index, 15% MSCI EAFE Index, 5% Russell 2000 Index, 30% Bloomberg Barclays US Aggregate Bond Index, and 10% Bloomberg Barclays US Corporate High Yield Index. Past performance does not guarantee or indicate future results. Index performance is for illustrative purposes only. You cannot invest directly in the index.

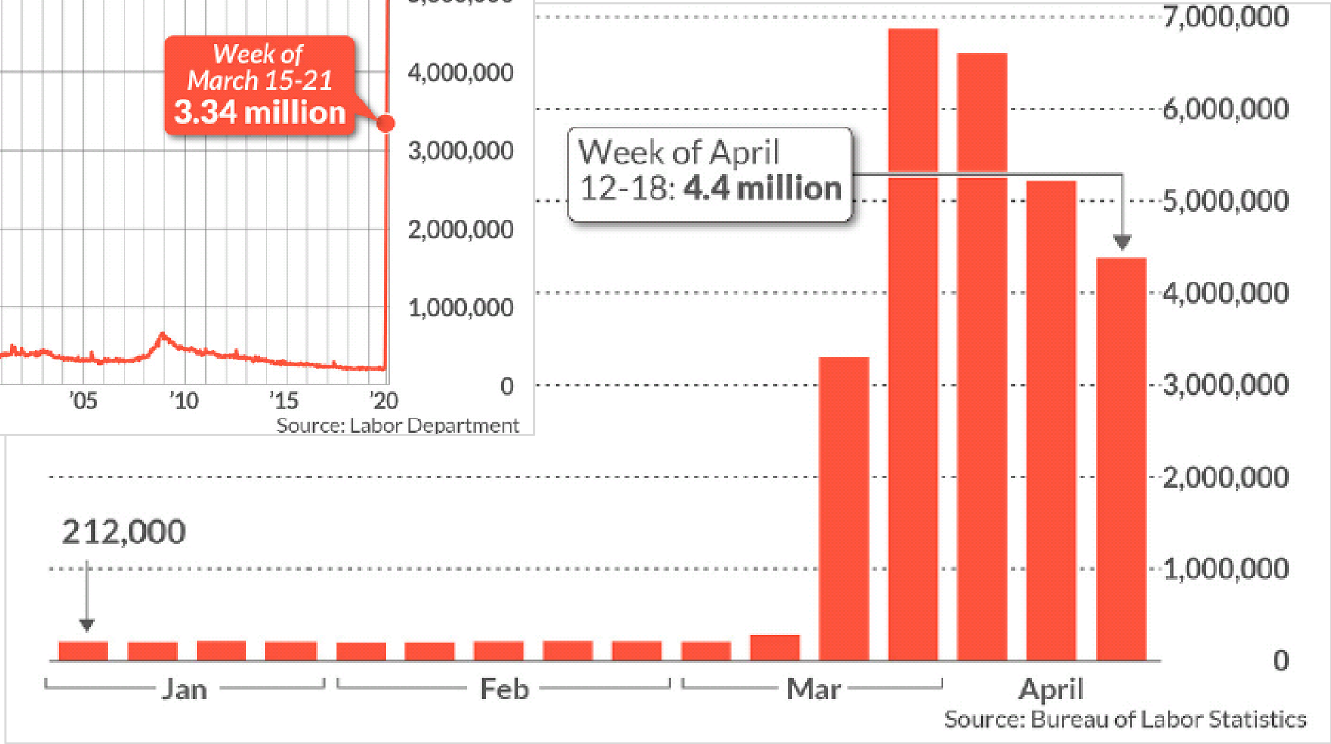
- Macro Update

Early Signs of Economic Downturn

- The latest Covid-19 induced layoffs and furloughs soared to 30 million; the last four weekly readings since mid- March were: 3.3M, 6.8M, 6.6M, and 4.4M
- In perspective, these mind-boggling numbers surpassed the previous highest single weekly reading of 695,000 in 1982
- The worst since the 1930s. Just a month and a half ago, new jobless claims were in the low 200,000s and stood near a 50-year low. Only about 1.7 million Americans were collecting benefits.
- The current reading exceeded the unemployment record of 15.3 million during the 2007-2009 Great Recession

Early Signs of Economic Downturn



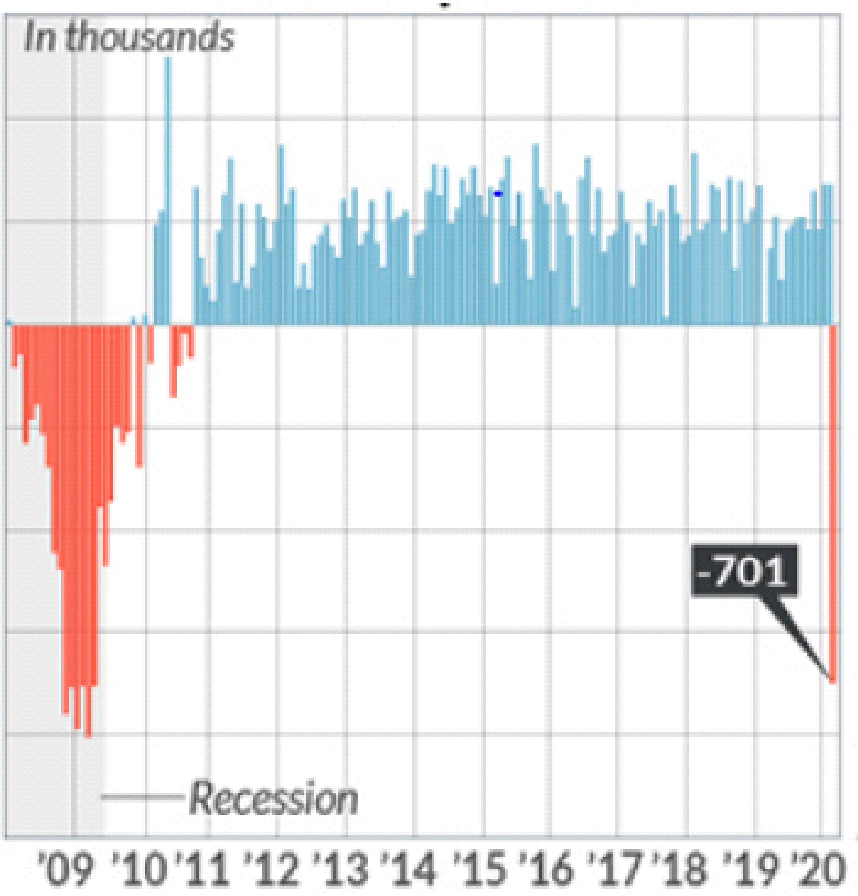


US Unemployment Rises

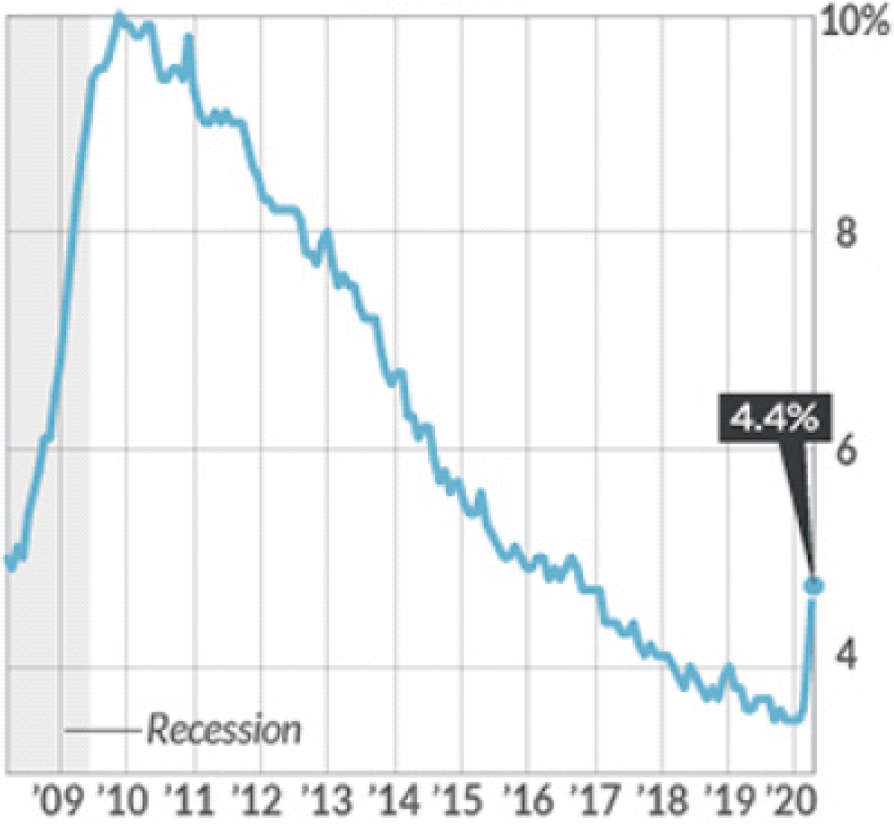
- 50-year low of 3.5% now a thing of the past
- The unemployment rose to 4.4% in March, but the outlook for coming months is grim
- The current pace of job losses suggest the unemployment rate will soon move past 15% and perhaps even exceed 20%, coming close to levels last seen in the 1930s
- Employment had risen for a record 113 straight months until the decline in March, and now the U.S. is probably confronting an extended period of job losses
- Job losses were higher at restaurants, hotels and related businesses in leisure and hospitality
- Wage gains are also likely to shrink in the coming months, adding more strain to the economy

US Unemployment Rises

Monthly Jobs



Unemployment Rate



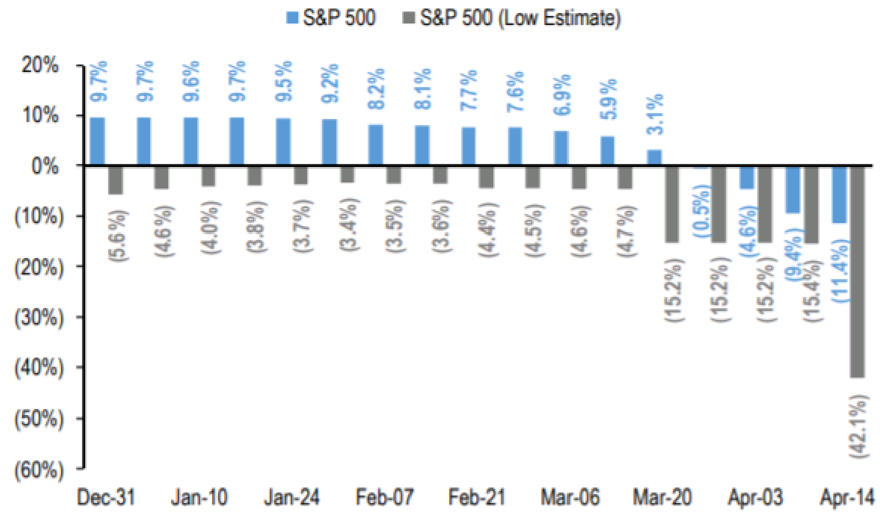
Sources: MarketWatch, Bureau of Labor Statistics

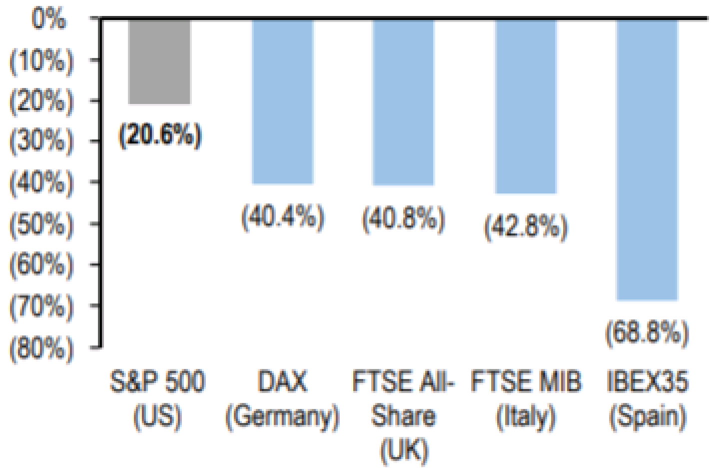
Quarterly Earnings Expected to Fall

- Low analyst estimates imply 2020 EPS fall by 40%
- Q1 earnings are expected to fall by 15-20%
- Expecting sharp revisions to 2020 EPS globally

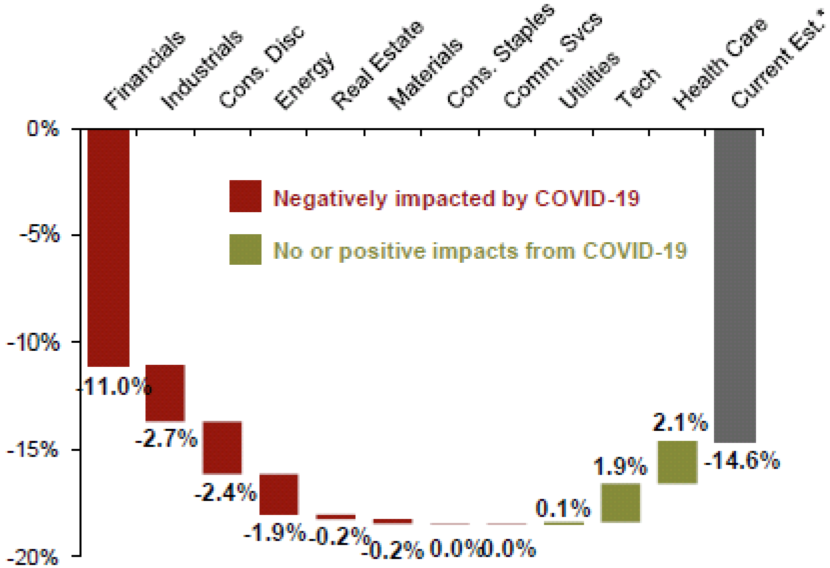
Quarterly Earnings Expected to Fall

S&P 2020 500 EPS Growth Consensus and Low Estimate





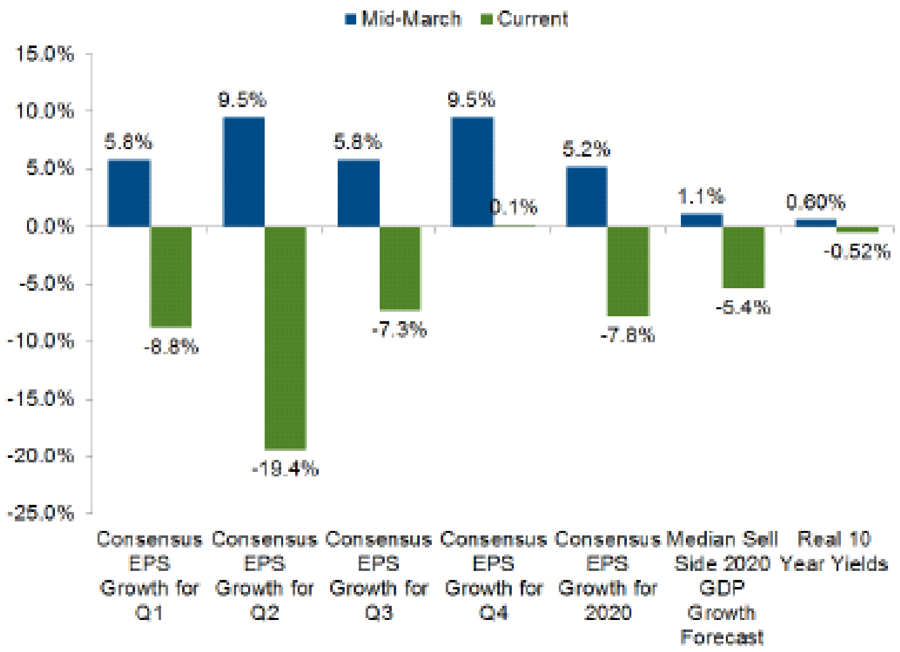
Contribution to 1Q20 EPS growth by sector
Year-over-year % change



Source: J.P. Morgan US Equity Strategy & Global Quantitative Research, Factset, Bloomberg, IBES

Earnings & GDP Expected to Fall

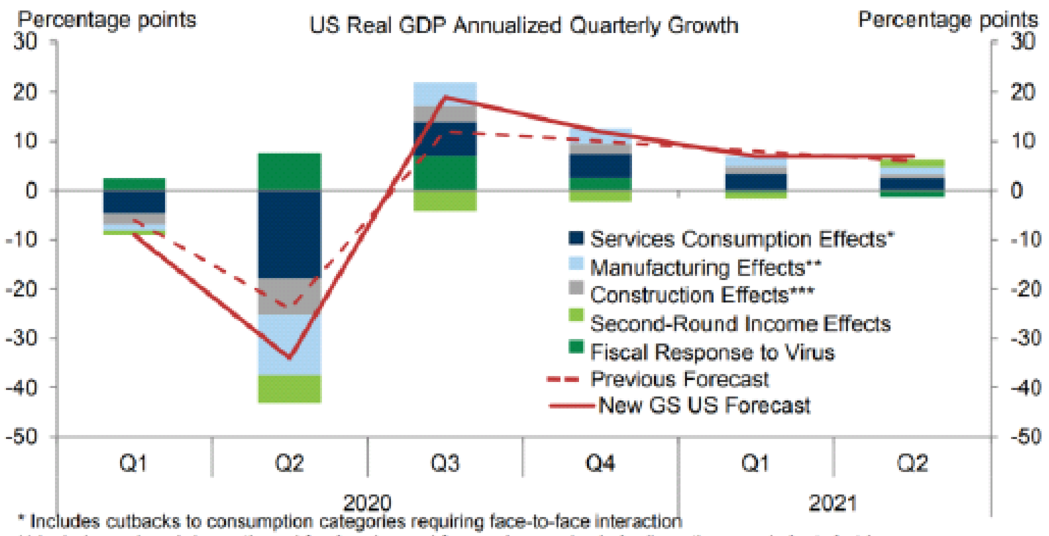
Analysts consensus estimates for 2020
(EPS, Real GDP, and Real 10-Year Yields)



Source: Investment Strategy Group, Bloomberg, FactSet.

US Real GDP Annualized Quarterly Growth Forecast

Assuming most states reopen in June, the peak-to-trough decline in real U.S. GDP could be as high as 8-10%, versus the 4% decline during the financial crisis



* Includes cutbacks to consumption categories requiring face-to-face interaction
** Includes reduced domestic and foreign demand for goods, supply chain disruptions, and plant shutdowns.
*** Includes cutbacks to structures investment, homebuilding, and home sales.

Economic Activity Points to Recessionary Environment

- The International Monetary Fund forecasts that the world economy would shrink by 3% this year, which would be “the worst” recession since the 1930s
- The Conference Board’s U.S. leading economic index post record 6.7% plunge in March, which shattered the prior record of a 3.4% decline in October 2008
- The U.S. preliminary manufacturing PMI fell to 36.9, the fastest decline in 11 years, and the services PMI fell to 27.0, a series low
- Industrial production fell 5.4%, and durable goods orders dropped 14.4% in March, month-over-month, driven by a sharp decline in transportation equipment, nondefense aircraft, and autos.
- Consumer sentiment sinks to 9-year low and likely to go even lower as coronavirus slams economy; Consumer sentiment index tumbles to 71 in April from 89.1 in the previous month
- New-home construction records most significant monthly decline since March 1984, as coronavirus pandemic takes a toll
- Business activity in the New York state area dropped to a record low of negative-78.2 in April from negative-21.5 in the previous month
- U.S. industrial production fell 5.4% in March, the steepest decline since early 1946
- Retail sales registered a record 8.7% slump in March, month-over-month
- A reading of confidence among U.S. homebuilders in April fell to its lowest reading since 2012 and the most substantial monthly change in the index’s 30-year history
- A new report from Fannie Mae projects that home sales fall by nearly 15% in 2020

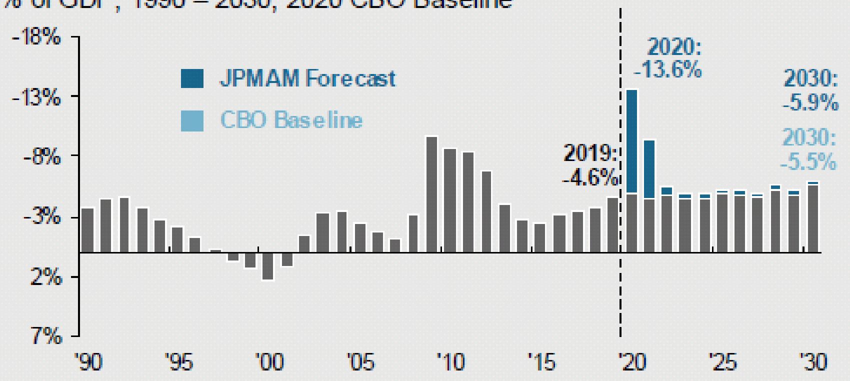
Fiscal Spending Over 12% of GDP

Coronavirus Aid, Relief, and Economic Security Act

Amount ($ bn)	Measure
$290	One-time stimulus checks amounting to $1,200 per adult and $500 per child up to certain income limits
$260	Enhanced, expanded and extended unemployment benefits, adding $600 per week to every unemployment check for 4 months, expanding program to cover contractors and self-employed and extending program to 39 weeks from 26 weeks
$510	Loans to distressed businesses, cities and states. Includes $29 billion for airlines, $17 billion for firms deemed important for national security and $454 billion as backstop for loans to other businesses, cities and states
$377	Small business relief, largely in the form of "forgivable loans" for spending on payroll, rent and utilities
$150	Direct aid to state and municipal governments
$180	Health-related spending
$516	Other spending and tax breaks
$2.283 trillion	**~10.8% of GDP**

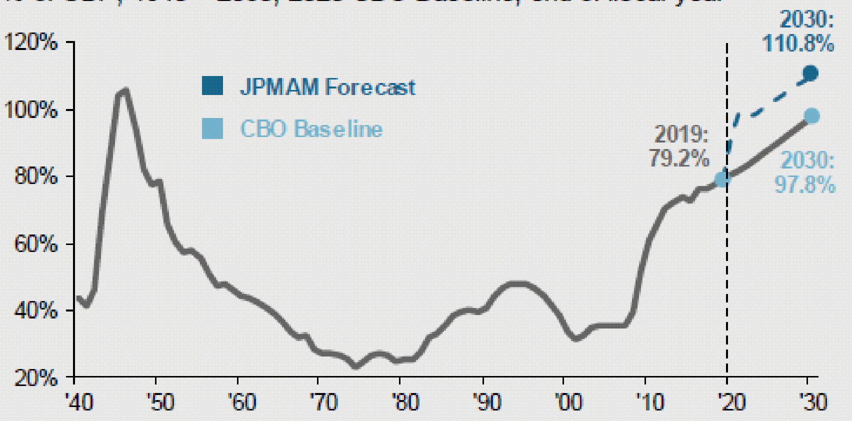
Federal budget surplus/deficit

% of GDP, 1990 – 2030, 2020 CBO Baseline



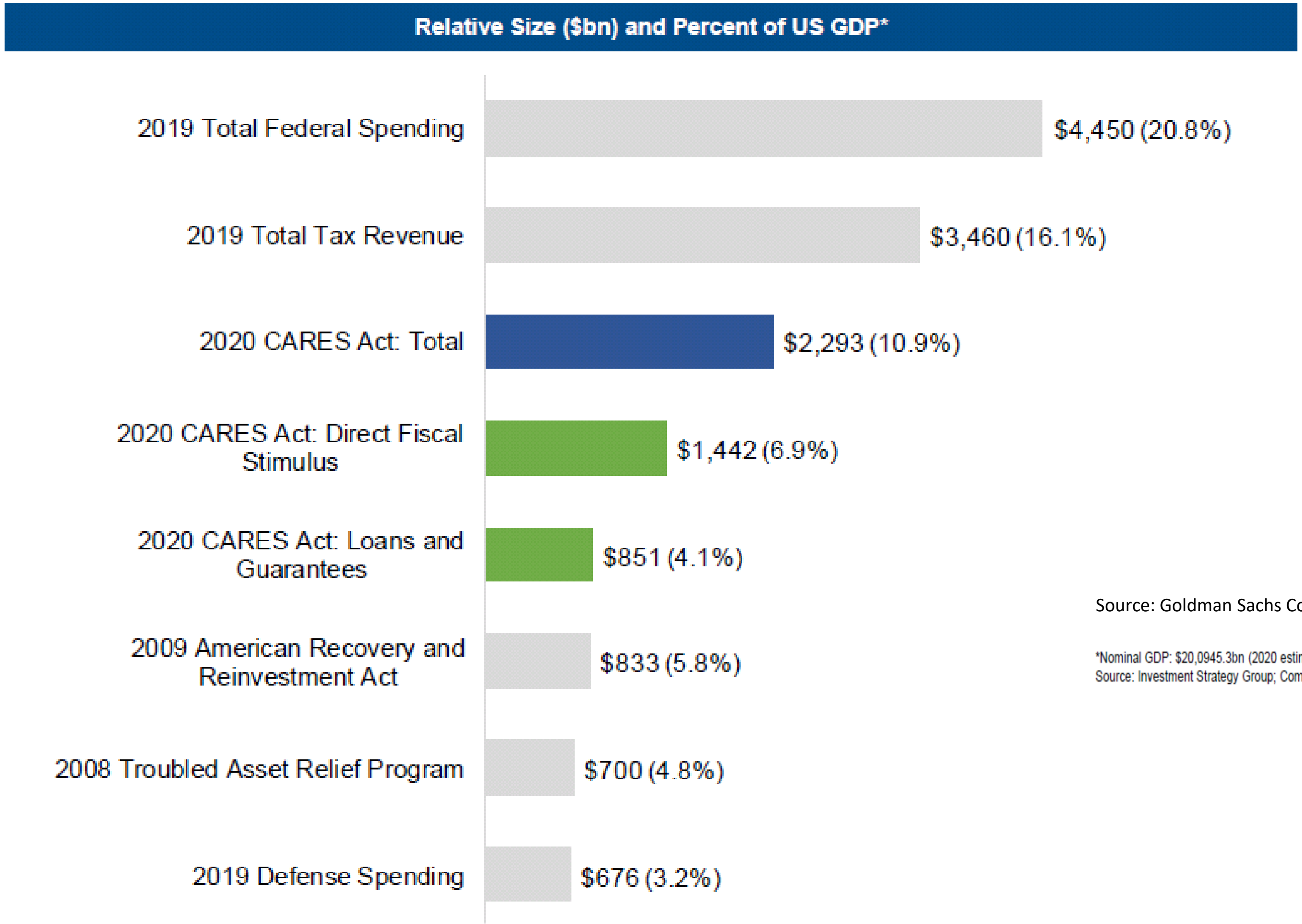
Federal net debt (accumulated deficits)

% of GDP, 1940 – 2030, 2020 CBO Baseline, end of fiscal year



Source: CBO, J.P. Morgan Asset Management; (Top and bottom right) BEA, Treasury Department.
2020 Federal Budget is based on the Congressional Budget Office (CBO) March 2020 Baseline Budget Forecast. CBO Baseline economic assumptions are based on the Congressional Budget Office (CBO) January 2020 Update to Economic Outlook. Other spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Note: Years shown are fiscal years (Oct. 1 through Sep. 30).
Guide to the Markets – U.S. Data are as of March 31, 2020.

CARES Act vs. GDP



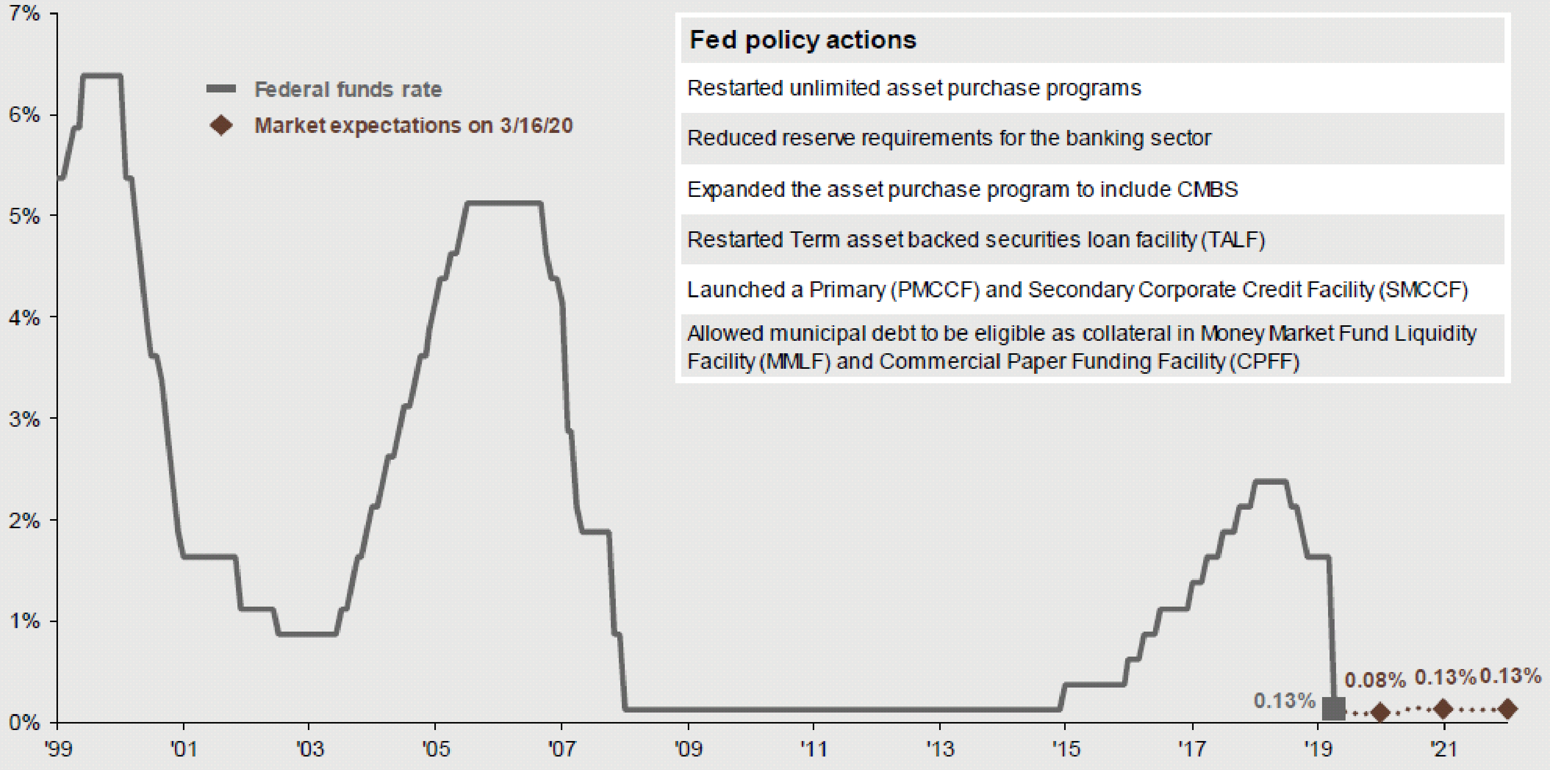
Source: Goldman Sachs Consumer and Investment Management Group

*Nominal GDP: $20,0945.3bn (2020 estimated), $21,427.1bn (2019), $14,448.9bn (2009), $14,712.8 (2008)
Source: Investment Strategy Group; Committee for a Responsible Federal Budget; CBO, *Washington Post*, IMF, Goldman Sachs Global Investment Research.

Whatever it Takes

Federal funds rate expectations

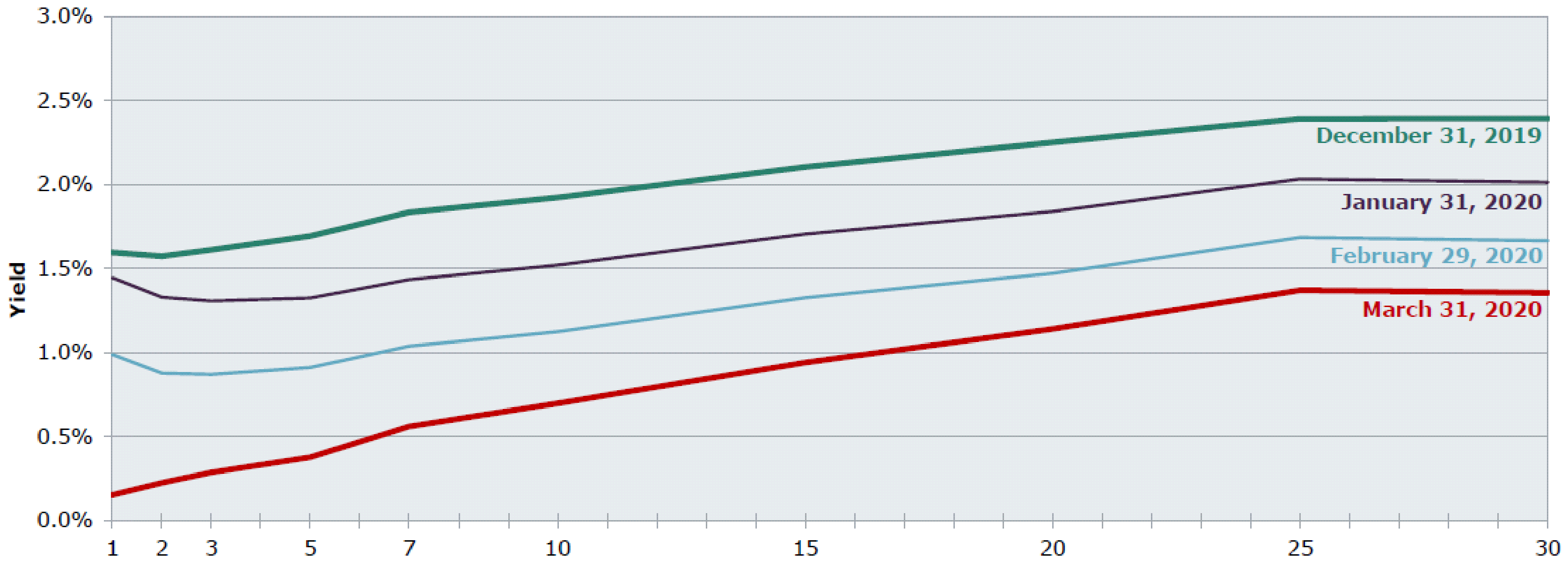
FOMC and market expectations for the federal funds rate



Fed policy actions
Restarted unlimited asset purchase programs
Reduced reserve requirements for the banking sector
Expanded the asset purchase program to include CMBS
Restarted Term asset backed securities loan facility (TALF)
Launched a Primary (PMCCF) and Secondary Corporate Credit Facility (SMCCF)
Allowed municipal debt to be eligible as collateral in Money Market Fund Liquidity Facility (MMLF) and Commercial Paper Funding Facility (CPFF)

Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are the federal funds rates priced into the fed futures market as of the following date of the March 15, 2020 emergency cut and are through December 2022.
Guide to the Markets – U.S. Data are as of March 31, 2020.

Rates Fell Along Yield Curve



Fed's aggressive QE policy has shifted the yield curve downwards. The policy potentially could keep the low rates much longer.

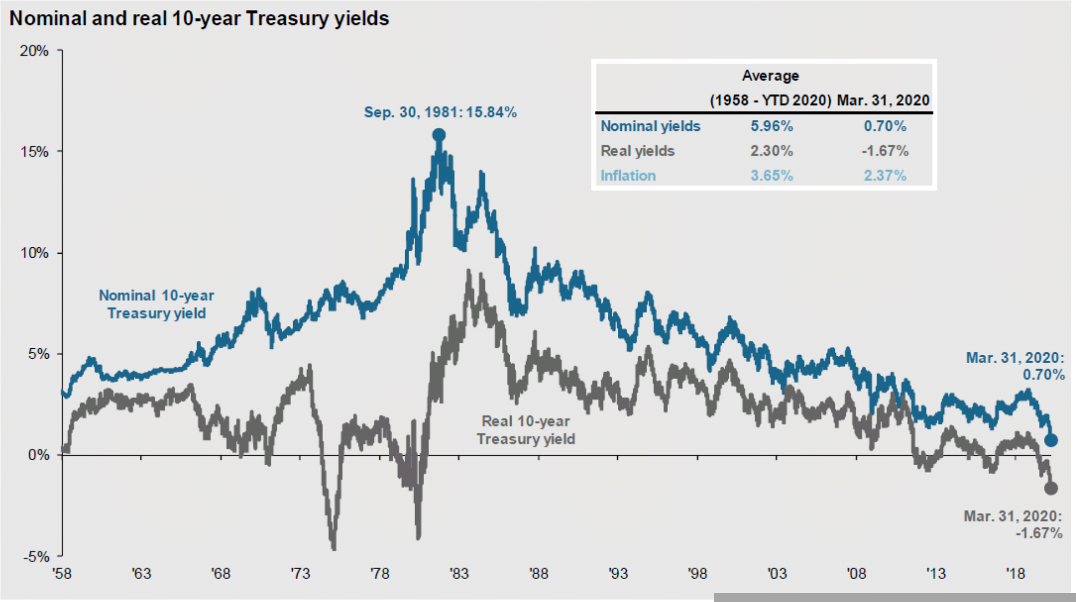
Sources: Robert W. Baird & Co., Bloomberg

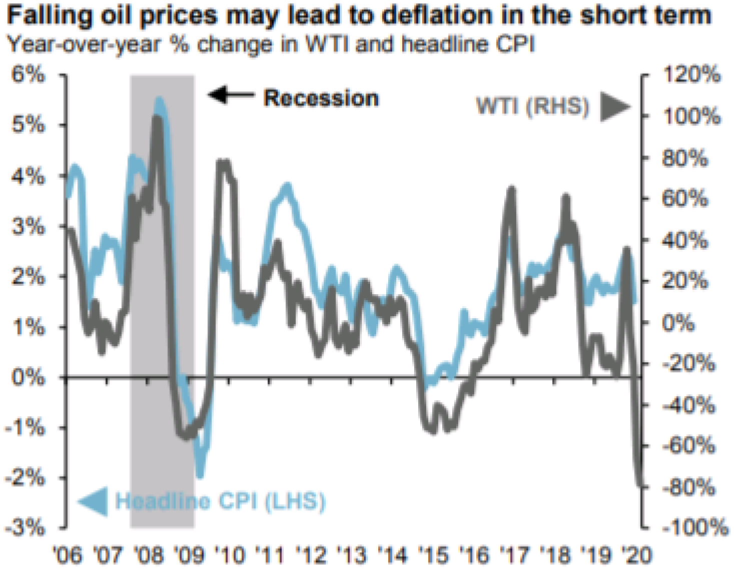
Rates Fell Along Yield Curve

Maturity	December 31, 2019	January 31, 2020	February 29, 2020	March 31, 2020	March Change	Q1 Change	2019 Change
1	1.60%	1.44%	0.99%	0.16%	-0.83%	-1.44%	-1.00%
2	1.57%	1.33%	0.88%	0.23%	-0.65%	-1.34%	-0.92%
3	1.61%	1.31%	0.87%	0.29%	-0.58%	-1.32%	-0.85%
5	1.69%	1.33%	0.91%	0.38%	-0.53%	-1.31%	-0.82%
7	1.83%	1.43%	1.04%	0.56%	-0.48%	-1.27%	-0.76%
10	1.92%	1.52%	1.12%	0.70%	-0.42%	-1.22%	-0.76%
30	2.39%	2.01%	1.67%	1.36%	-0.31%	-1.03%	-0.63%

Sources: Robert W. Baird & Co., Bloomberg

Rates, Inflation & Potential Deflation





But if the economy recovers rapidly, then the massive fiscal stimulus can shift to structural inflation

Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month except for March 2020 where real yields are calculated by subtracting out February 2020 year-over-year core inflation.
Guide to the Markets – U.S. Data are as of March 31, 2020.

Source: J.P. Morgan Asset Management, Market Insights – Guide to Markets Q2 2020