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April 23, 2020

Insights from Stifel's CIO Office

INVESTMENT STRATEGY BRIEF:
COVID-19 UPDATE

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**INVESTMENT STRATEGY
BRIEF**

Research →

Through research and monitoring of the virus, we can eventually develop drugs to prevent and treat COVID-19

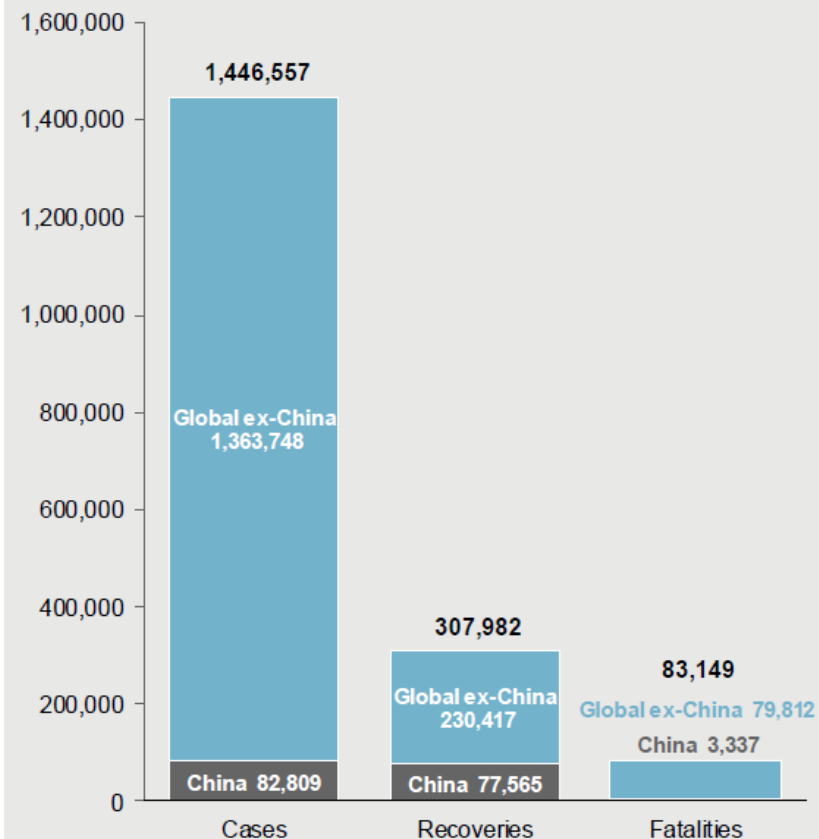| *Containment*	*Delay*	*Mitigation*
Aim to detect and isolate early cases in order to limit the spread of the virus.	The virus spreads, but officials try to delay its peak by introducing measures such as closing schools or postponing large gathering events.	Introducing even stricter measures and actions that persons, communities, and/or countries can take to help slow the spread of the coronavirus. This can be done through travel and border health measures. The goal is to minimize the impact of the disease on society, public services, and the economy.

"Flattening the Curve"

Stopping the virus from spreading quickly will help ensure that the healthcare system won't be overwhelmed at once and can manage the pressure of the outbreak.
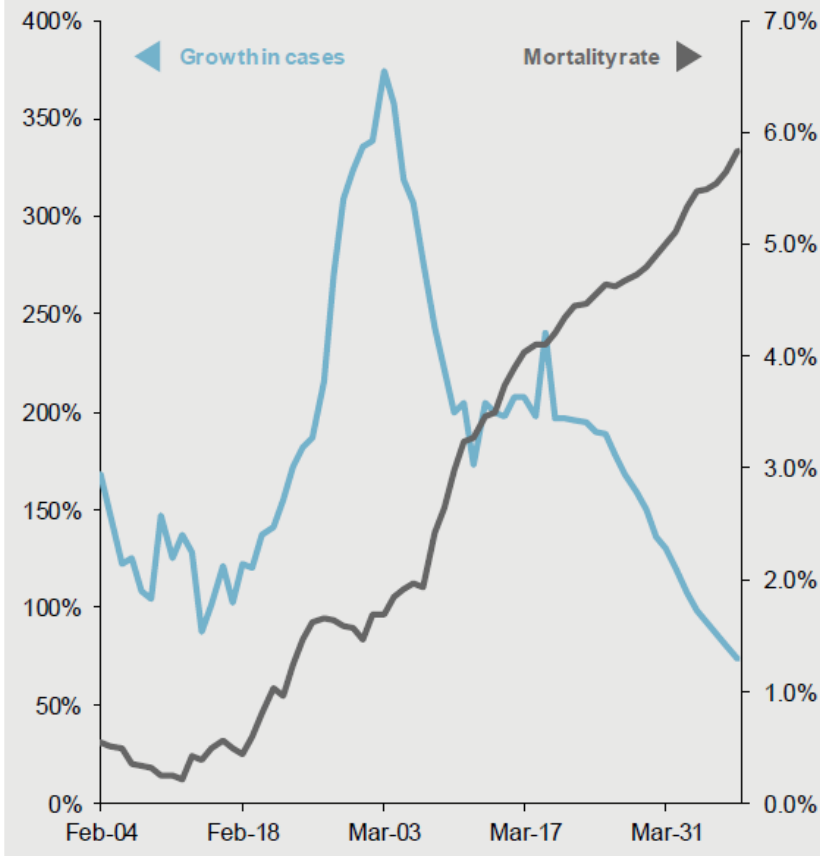

OF CASES

Without Protective Measures

HEALTHCARE SYSTEM CAPACITY

With Protective Measures

TIME SINCE FIRST CASE

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Cases, recoveries and fatalities by region
As of April 08, 2020

Cases — 1,446,557 (Global ex-China 1,363,748; China 82,809)
Recoveries — 307,982 (Global ex-China 230,417; China 77,565)
Fatalities — 83,149 (Global ex-China 79,812; China 3,337)

Weekly % change in cases & mortality rate, ex-China
As of April 07, 2020

Growth in cases / Mortality rate

Performance

2019

Index	12/31 to 4/30	4/30 to 5/31	5/31 to 12/31	Full 2019
S&P 500	18.2%	-6.4%	18.7%	31.5%
Russell 2000 Index	18.5%	-7.8%	14.9%	25.5%
MSCI EAFE Index	13.1%	-4.8%	13.6%	22.8%
MSCI EM Index	12.3%	-7.2%	14.0%	18.7%

2020

Index	12/31 to 2/19	2/19 to 3/23	3/23 to 4/21	2020 YTD
S&P 500	5.1%	-33.8%	22.5%	-14.8%
Russell 2000 Index	1.6%	-40.7%	18.4%	-28.7%
MSCI EAFE Index	-0.8%	-32.7%	20.2%	-19.7%
MSCI EM Index	-0.9%	-31.2%	18.8%	-19.0%

Source: Stifel Investment Strategy via Bloomberg, as of April 21, 2020; MSCI EAFE and EM performance as of April 20, 2020

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S&P 500

Crude Oil, WTI

U.S. IG Corporate OAS

Health Panic → Economic Panic → Market Panic

10-Year U.S. Treasury Yield

INVESTMENT STRATEGY BRIEF

Source: Stifel Investment Strategy via Bloomberg, as of intra-day April 21, 2020
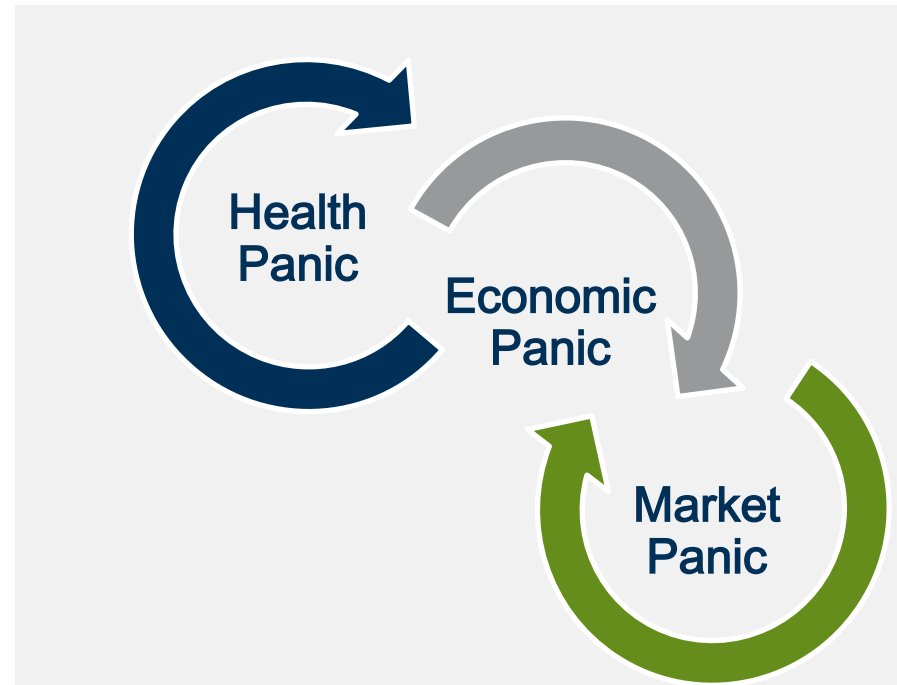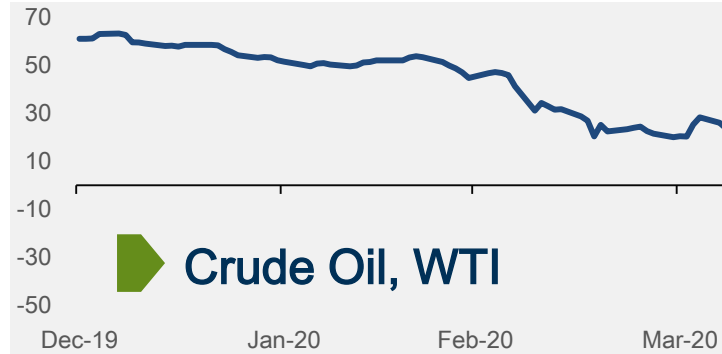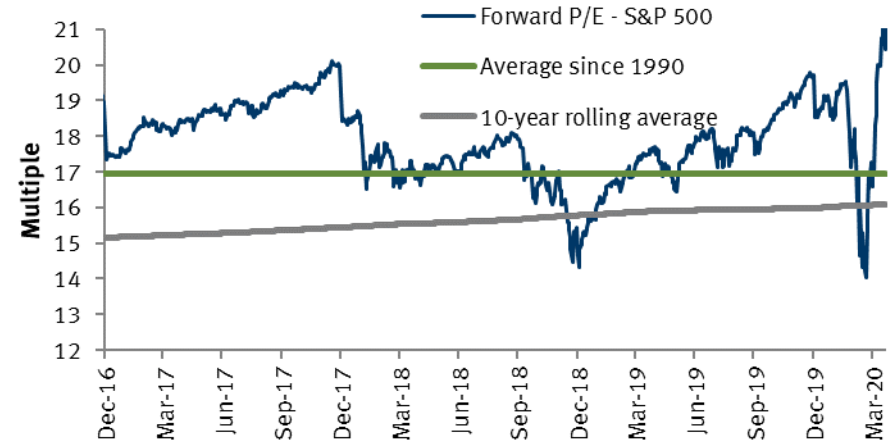
Source: Stifel Investment Strategy via Bloomberg, intra-day as of April 21, 2020
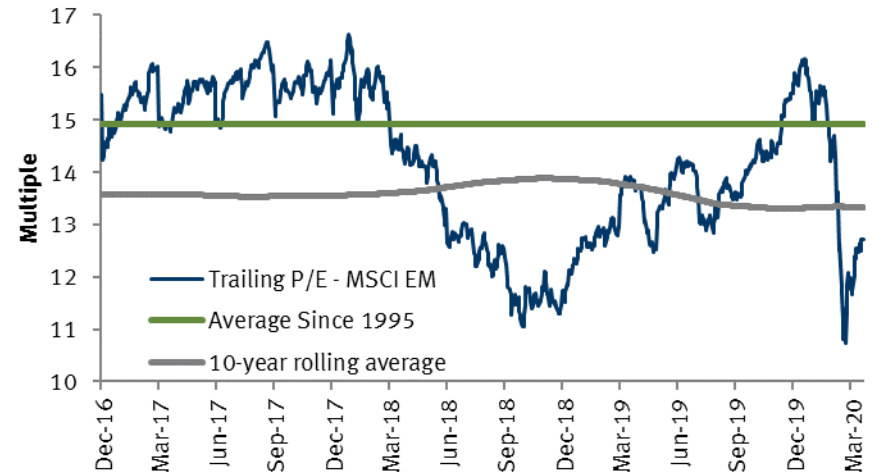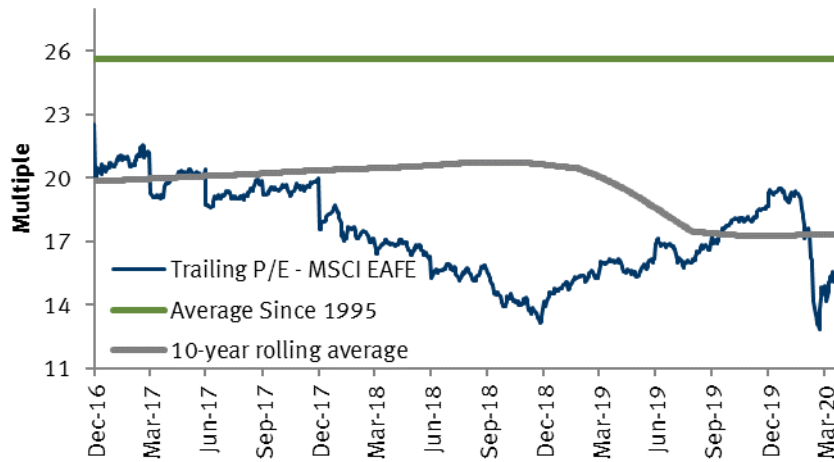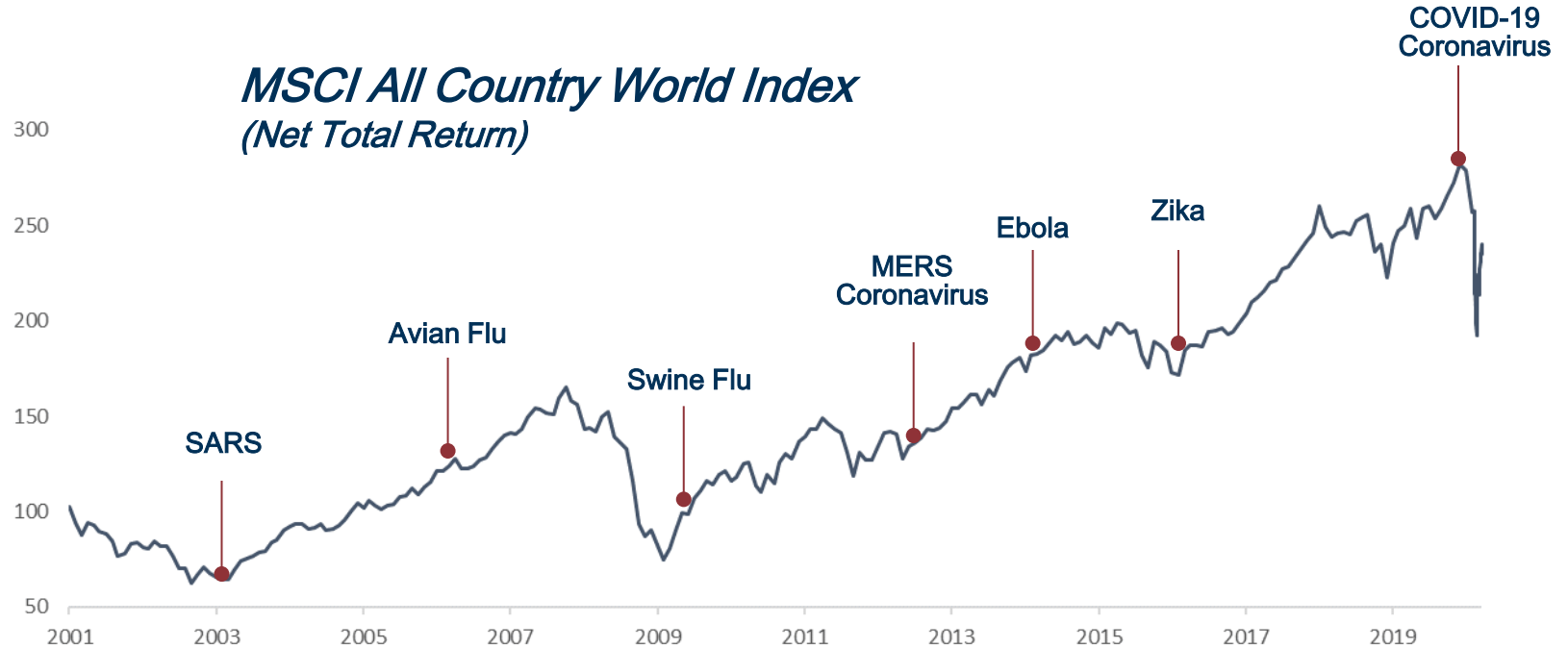

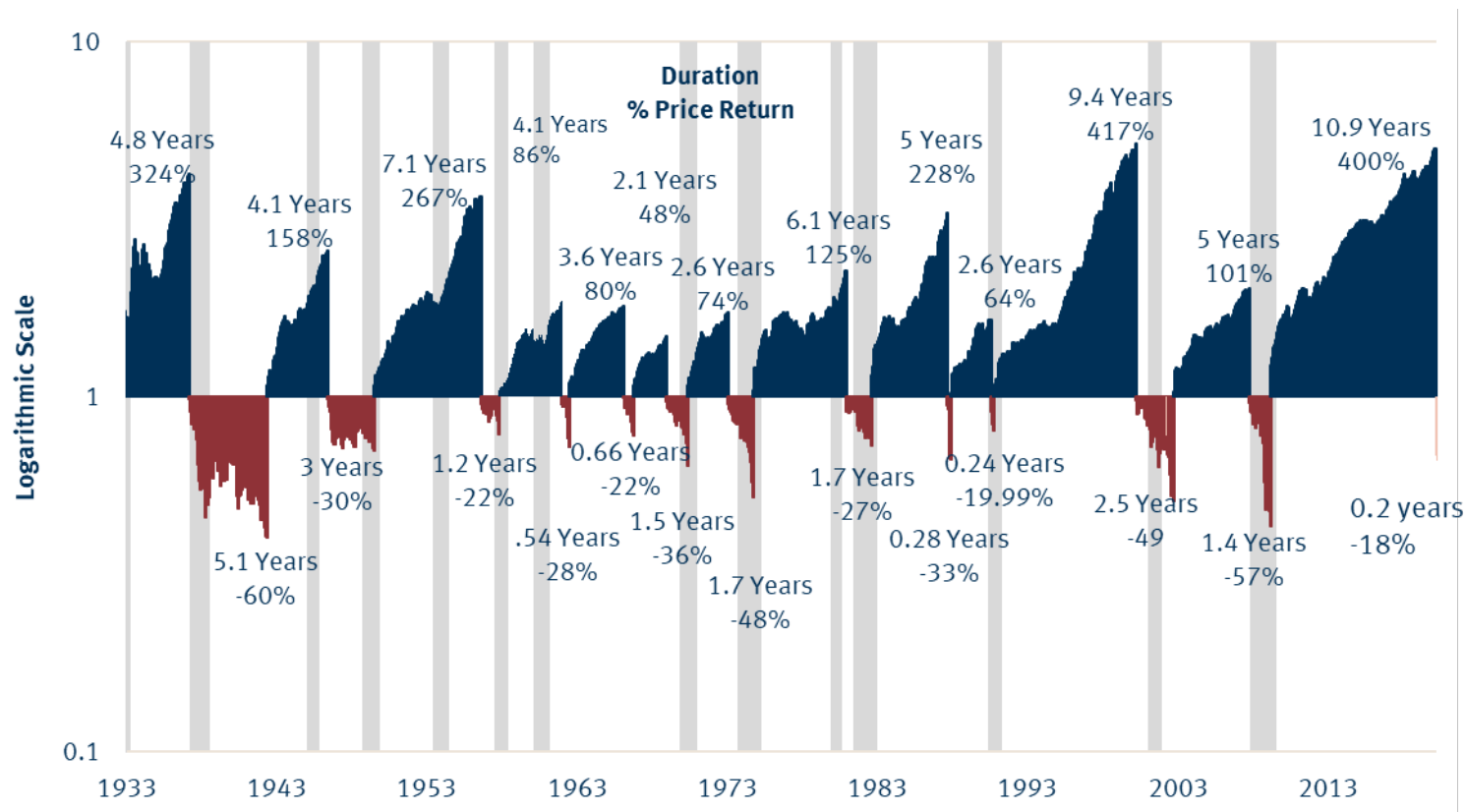Source: Stifel Investment Strategy via Bloomberg, as of April 20, 2020

Outbreak	Year (s)	Impact on Countries	# of Deaths	# of Infections	Mortality Rate	Contagiousness*
COVID-19	2019-	Global	141,195	2,115,624	6.67%	1.5-3.5
Swine Flu	2009-2010	Global	150,000-300,000	60.8 million	0.03%	1.5
SARS	2003-2004	China and 26 others	800	8,000	10%	3.0
Hong Kong Flu	1968-1970	SEA, USA, Europe	1-4 million	N/A**	0.20%	2.0
Asian Flu	1957-1958	China, USA, Europe	1-2 million	N/A**	0.20%	1.8
Spanish Flu	1918-1919	Global	25 million	500 million	10%	2.0

MSCI All Country World Index
(Net Total Return)

Source: Stifel Investment Strategy via Bloomberg, Boston Consulting Group, Bridgewater Associates, National Health Commission China, American Journal of Epidemiology, US National Library of Medicine, BCG Henderson Institute Analysis, CDC, John Hopkins University, as of April 16, 2020
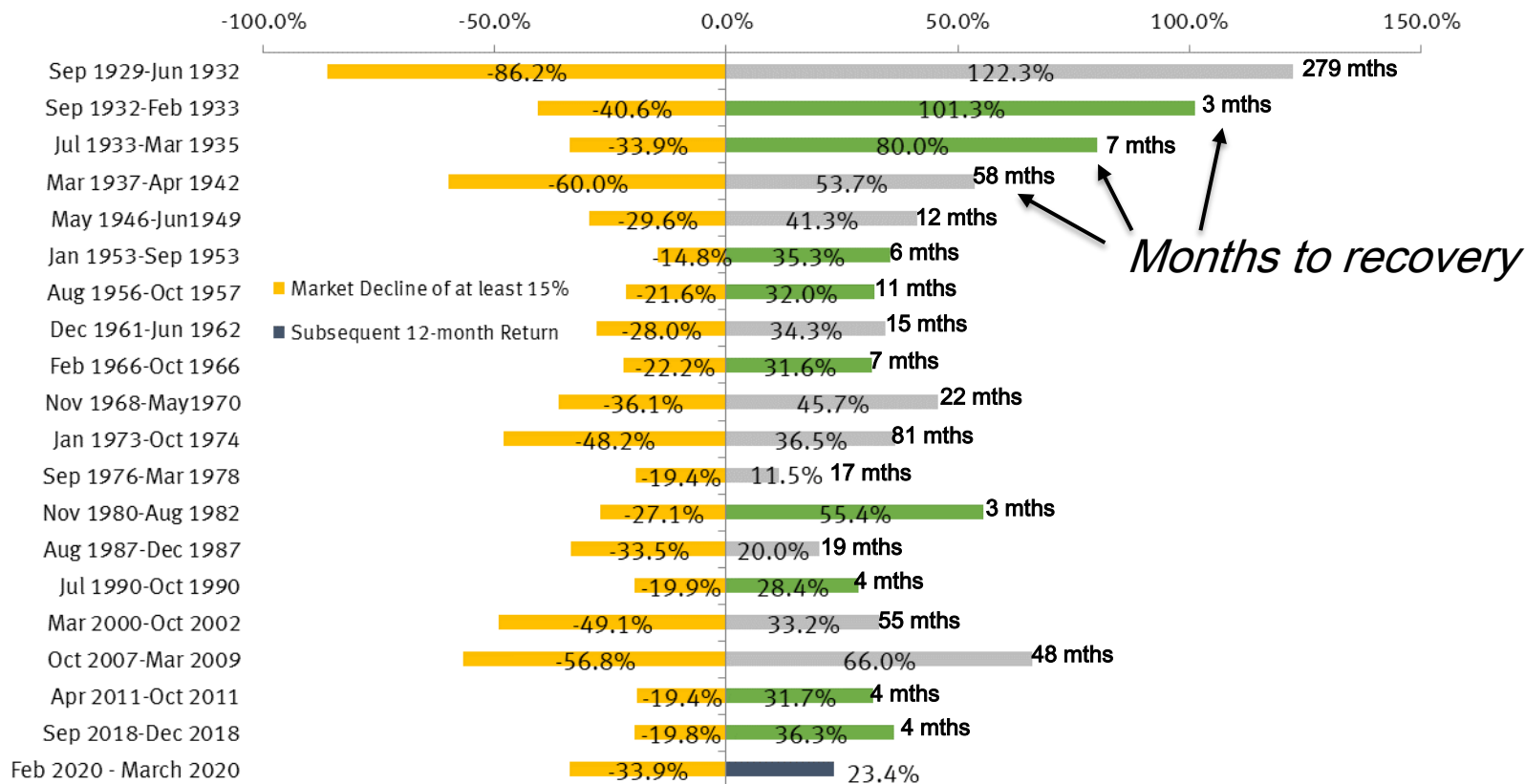
*Average number of persons infected by each sick individual at the peak of transmission based on Boston Consulting Group study. **not available.

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Bull and Bear Markets Since 1932

Source: Stifel Investment Strategy data via Bloomberg, Strategas Research Partners, as of April 16, 2020

The right hand side of the chart below shows the returns of the S&P 500 over the subsequent 12 months. The green bars refer to periods of full recovery within that time.

Period	Market Decline of at least 15%	Subsequent 12-month Return	Months to recovery
Sep 1929-Jun 1932	-86.2%	122.3%	279 mths
Sep 1932-Feb 1933	-40.6%	101.3%	3 mths
Jul 1933-Mar 1935	-33.9%	80.0%	7 mths
Mar 1937-Apr 1942	-60.0%	53.7%	58 mths
May 1946-Jun1949	-29.6%	41.3%	12 mths
Jan 1953-Sep 1953	-14.8%	35.3%	6 mths
Aug 1956-Oct 1957	-21.6%	32.0%	11 mths
Dec 1961-Jun 1962	-28.0%	34.3%	15 mths
Feb 1966-Oct 1966	-22.2%	31.6%	7 mths
Nov 1968-May1970	-36.1%	45.7%	22 mths
Jan 1973-Oct 1974	-48.2%	36.5%	81 mths
Sep 1976-Mar 1978	-19.4%	11.5%	17 mths
Nov 1980-Aug 1982	-27.1%	55.4%	3 mths
Aug 1987-Dec 1987	-33.5%	20.0%	19 mths
Jul 1990-Oct 1990	-19.9%	28.4%	4 mths
Mar 2000-Oct 2002	-49.1%	33.2%	55 mths
Oct 2007-Mar 2009	-56.8%	66.0%	48 mths
Apr 2011-Oct 2011	-19.4%	31.7%	4 mths
Sep 2018-Dec 2018	-19.8%	36.3%	4 mths
Feb 2020 - March 2020	-33.9%	23.4%	

Source: Stifel Investment Strategy via Bloomberg, as of April 17, 2020
Each market decline reflects a decline of at least 15% in the S&P 500's index value, without dividends reinvested.

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	Indicator	Pre-Coronavirus Outbreak	Current	Description
Macro	Redbook Retail Sales (%)	5.0	-6.9	Redbook sales give us a weekly view of the U.S. consumer.
	Jobless Claims (thousands)	216.3	5245.0	A good weekly proxy for aggregate U.S. consumer spending.
	Leading Economic Indicators YoY (%)	0.9	-6.5	A good composite economic indicator consisting of key metrics that lead the economic cycle.
	Global Economic Surprise Index	5.8	-37.8	A measure of how well economic data is faring relative to consensus expectations.
	Bloomberg Consensus 2020 World Real GDP (%)	3.1	-1.5	Sell-side estimate of global GDP.
	IMF 2020 World Real GDP (%)	3.4	-3.0	IMF estimate of global GDP.
	Bloomberg Consensus 2020 U.S. Real GDP (%)	1.9	-3.4	Economist survey estimate of U.S. real GDP.
	ISM New Orders - Manufacturing	52.0	42.2	One of the key leading economic indicators.
	Global Money Supply ($ Trillions)	80.9	81.7	A measure of global liquidity.
	Monetary/Fiscal support			Global central banks and governments have taken simulative measures to support the global economy.

Source: Stifel Investment Strategy via Bloomberg, as of April 21, 2020

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	Indicator	Pre-Coronavirus Outbreak	Current	Description
Survey Data	U. of Michigan Consumer Confidence	99.8	71.0	Forward-looking consumer view of both present and expected economic conditions.
	Conference Board Consumer Confidence	130.4	120.0	Forward-looking consumer view of both present and expected economic conditions.
	NAHB Housing Market Index	75.0	30.0	Homebuilders' confidence - a good proxy of future housing activity.
	U.S. Empire State Manf. Index	4.8	-78.2	How businesses feel about the economy in the state of New York.
	Dallas Fed Manufacturing Index	-0.2	-70.0	How businesses feel about the economy in the state of Texas.
	Philly Fed Manufacturing Index	17.0	-56.6	How businesses feel about the economy in the states of Pennsylvania, New Jersey, and Delaware.
	Markit Manufacturing PMI	51.9	48.5	Reported twice a month and gives a real-time view of the manufacturing sector, covering all-sized U.S. companies.
	ISM Manufacturing PMI	50.9	49.1	Federal Reserve monitors closely. It tracks changes in new orders, production, employment, and inventories.
	Markit Services PMI	53.4	39.8	A timely measure to gauge service level sector activity.
	ISM Services PMI	55.5	52.5	A timely measure to gauge service level sector activity.
Coronavirus	U.S. Coronavirus Cases	0	804759	A direct measure of the virus.
	Global Coronavirus Cases ex China	0	2453915	A direct measure of the contagion from the virus.
Market Data	WTI Crude Oil ($/barrel)	58.5	10.0	A measure of global demand and economic activity. <$50 puts pressure on energy companies. Opec/Non-Opec price war has exasperated situation.
	Copper ($/pound)	284.6	223.1	A measure of global demand and economic activity. China accounts for almost half of global copper demand.
	10-Year/2-Year Treas. Yield Spread (BPs)	26.0	36.5	A negative spread has historically signaled a recession. An inversion could cause the Federal Reserve to ease monetary policy.
	Dow Jones Transportation Average Index	11278.9	7857.0	Equity market index for the top 20 U.S. transportation stocks.

Source: Stifel Investment Strategy via Bloomberg, as of April 21, 2020

INVESTMENT STRATEGY BRIEF

Recession Risk Checklist

Financial	Yield Curve (Caution)
	Credit Spreads (Caution)
	Money Supply (Recession)
Inflation	Wage Growth (Caution)
	Commodities (Caution)
	Inflation (PCE) (Caution)
Consumer	Housing Starts (Recession)
	Jobless Claims (Recession)
	Retail Sales (Recession)
	Job Sentiment (Recession)
Business Activity	ISM New Orders (Recession)
	Profit Margins (Caution)
	Truck Shipments (Caution)

Legend:
- Expansion
- Caution
- Recession

Out of 13 measures, 7 show caution & 6 recession:

- A flat to <u>inverted yield curve</u> often precedes recessions
- <u>Wider credit spreads</u> indicate some stress in funding markets
- <u>Higher-than-normal money supply growth</u>, indicates need for extraordinary monetary policy support in the system
- Weaker demand pushing <u>inflationary pressures lower</u>
- <u>Falling housing starts</u> indicate softer housing demand
- <u>Surging jobless claims</u> indicate higher unemployment
- <u>Declining retail sales</u> suggests weaker consumer activity
- <u>Falling job sentiment</u> show firms struggle to keep workers amid a reduction in business activity
- <u>Meaningful contracting ISM New Orders</u> (manufacturing) show weakness in business activity
- <u>Uncertainty over future earnings may</u> negatively impact profit margins
- Truck <u>shipments</u> indicate a business slowdown

Source: Stifel Investment Strategy data via Bloomberg, as of April 17, 2020
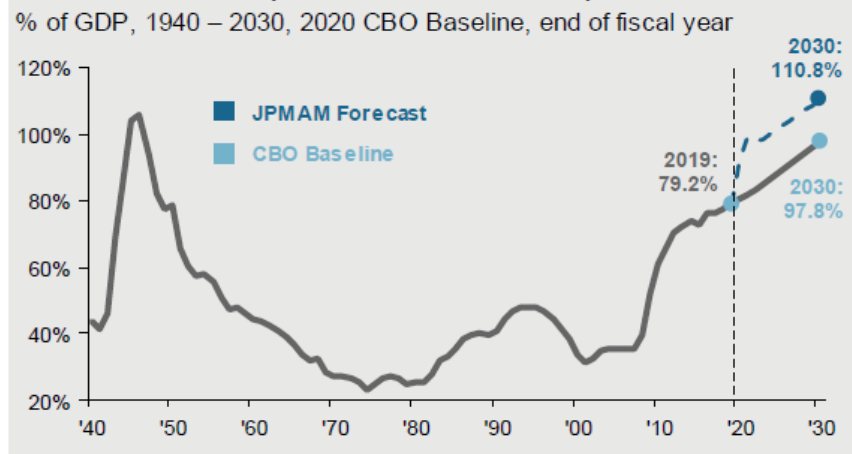
INVESTMENT STRATEGY BRIEF

Coronavirus Aid, Relief, and Economic Security Act

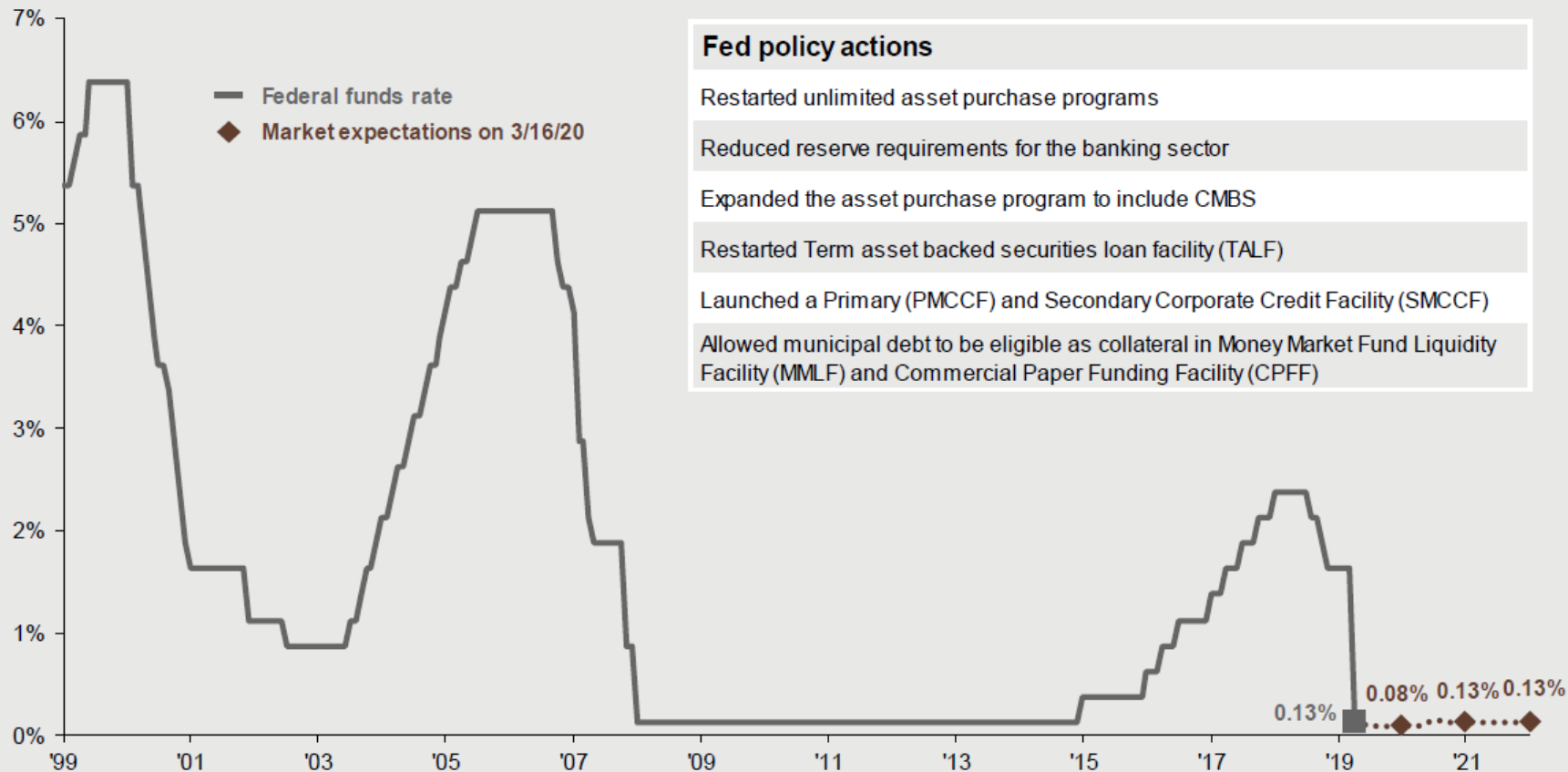| Amount ($ bn)	Measure
$290	One-time stimulus checks amounting to $1,200 per adult and $500 per child up to certain income limits
$260	Enhanced, expanded and extended unemployment benefits, adding $600 per week to every unemployment check for 4 months, expanding program to cover contractors and self-employed 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
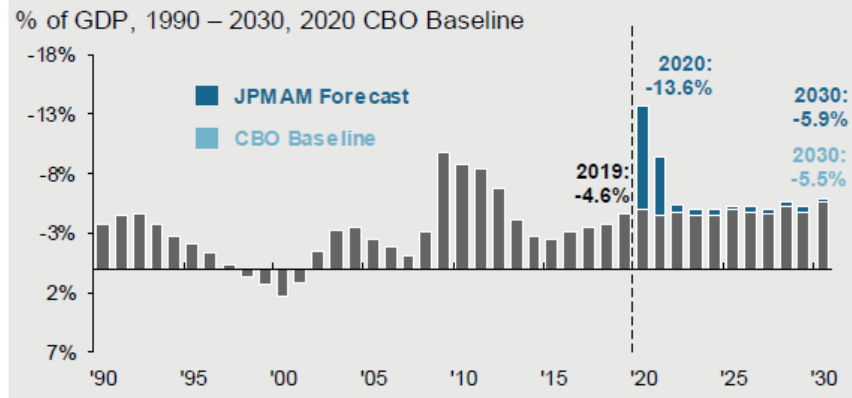
Federal net debt (accumulated deficits)
% of GDP, 1940 – 2030, 2020 CBO Baseline, end of fiscal year

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 April 7, 2020.

Federal funds rate expectations
FOMC and market expectations for the federal funds rate

Legend:
- Federal funds rate
- ◆ Market expectations on 3/16/20

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)

Market expectation values on chart: 0.13%, 0.08%, 0.13%, 0.13%

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 April 7, 2020.

Monetary Policy

- Recently announced $2.3 trillion program to support the economy

- $600 billion "Main Street Lending Fund" to aid small- and medium-sized businesses

- $500 billion facility to purchase notes from states, counties, and cities

- Expanded existing facility to begin buying investment grade Collateralized loan obligations (CLOs) and Commercial mortgage-backed securities (CMBS)

- Gives Fed ability to buy high yield bonds

Fiscal Policy

Potential New Measures

- Infrastructure spending (bridges, roads, buildings, etc.)

- Additional spending directed to healthcare (vaccine development, treatment)

- Additional spending directed to state and local governments

- Providing extra checks to lower income households and those below poverty line

- Providing favorable funding to medical supply providers

- Payroll tax cut

- Additional assistance to small businesses

Latest Measures

- Deal pending: $480 billion package to support small businesses, hospitals, and additional COVID-19 testing

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Developed market central bank bond purchases*
USD billions, 12-month rolling flow

Legend: Fed, BoJ, ECB, BoE
Forecast**
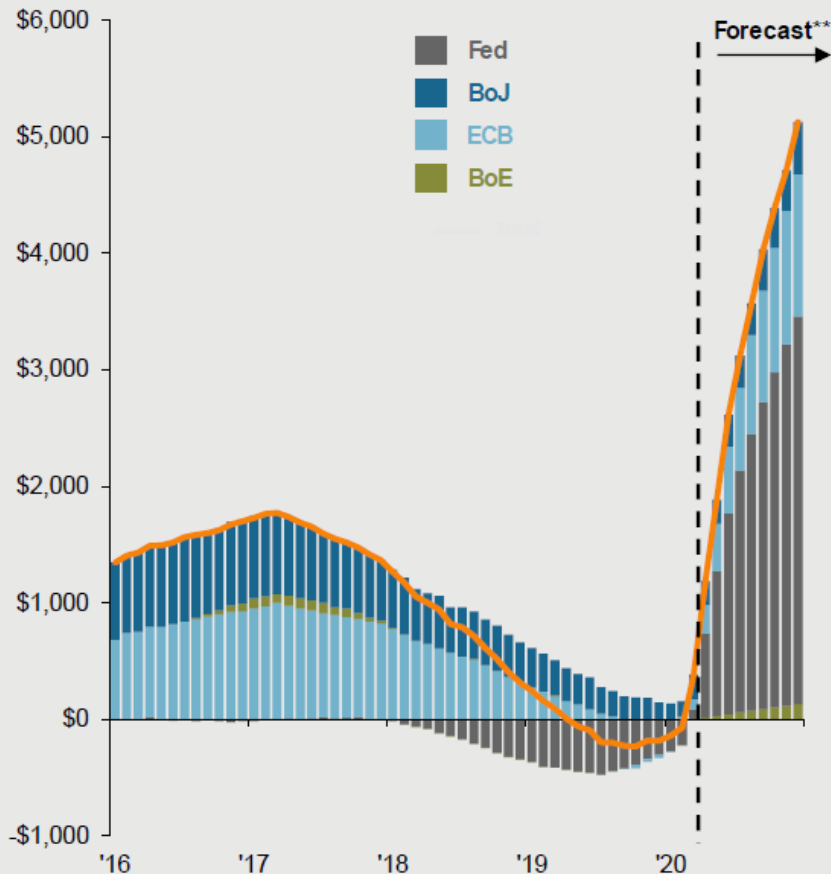
Number of rate changes by EM and DM central banks***

Legend: Cuts, Hikes
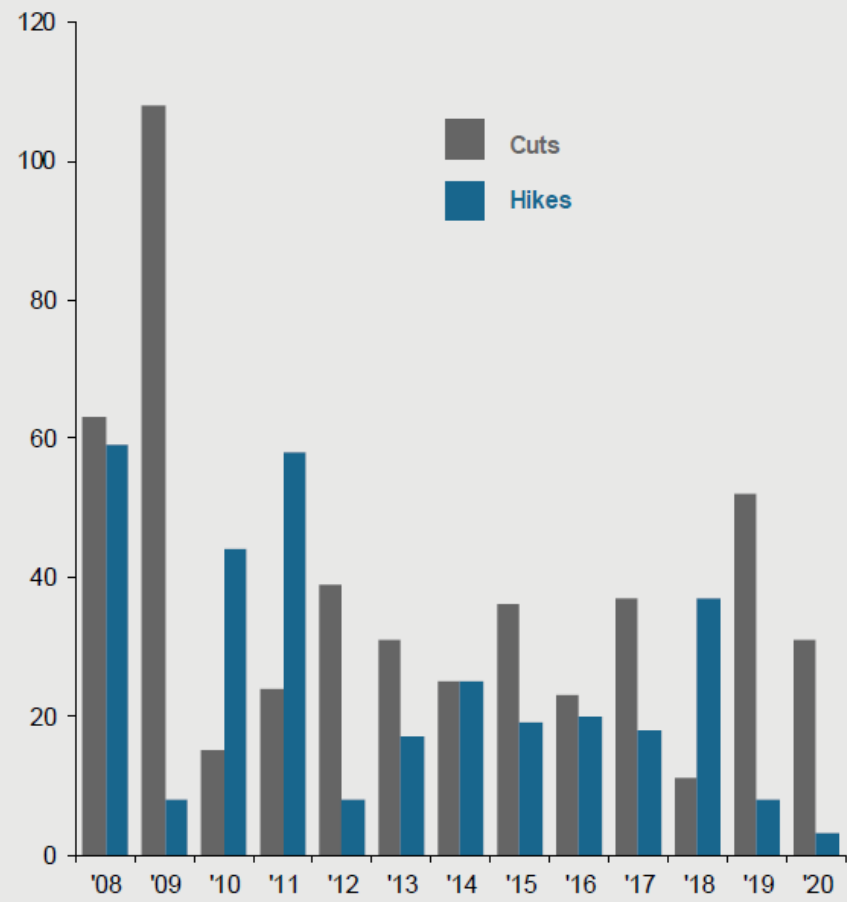
Source: J.P. Morgan Asset Management; (Left) Bank of England, Bank of Japan, European Central Bank, FactSet, Federal Reserve System, J.P. Morgan Global Economic Research; (Right) Bloomberg. *Includes the Bank of Japan (BoJ), Bank of England (BoE), European Central Bank (ECB) and Federal Reserve. **Bond purchase forecast assumes $200bn GBP in net purchases from BoE through August 2021; continued BoJ QE of $50trn JPY ann. for 2020; $1.11trn EUR in net purchases from the ECB through 2020; and the Federal Reserve to purchase $2.5trn of Treasuries, $1.2trn of agency MBS and $50bn of agency CMBS through 2020. Fed assumptions are based on purchase activity in March 2020 and previous QE announcements. ***Central banks include: Australia, Brazil, Canada, Chile, China, Colombia, Denmark, Euro area, Hong Kong SAR, Indonesia, India, Japan, Korea, Malaysia, Mexico, Norway, Peru, Philippines, Poland, Russia, Saudi Arabia, South Africa, Sweden, Switzerland, Thailand, Turkey, United Kingdom and the United States. *Guide to the Markets – U.S.* Data are as of April 7, 2020.

Labor Market

4.4% *Unemployment Rate*	**-27,000** *ADP Net Jobs Reduced*
3.1% *Hourly Earnings YoY*	**6,606,000** *Jobless Claims*

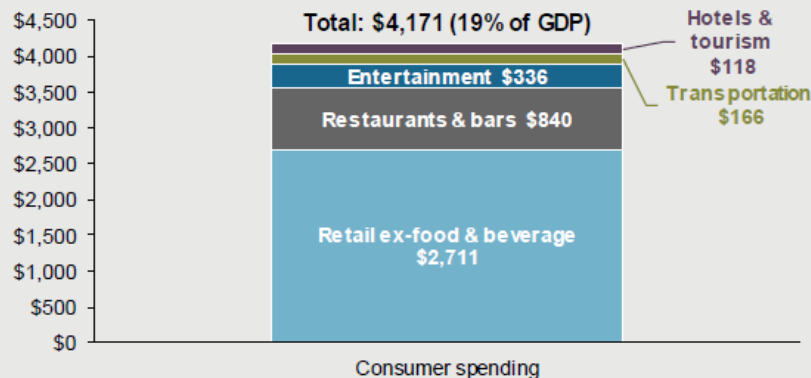*Source: Stifel Investment Strategy data via Bloomberg, as of April 16, 2020*

INVESTMENT STRATEGY BRIEF

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U.S. GDP	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2020*	2021*
Stifel	-2.6	-28.4	9.8	-7.0	-7.1	1.5
IHS Markit	3.0	-27.4	-0.4	6.0	-5.4	6.3
Morgan Stanley	-3.4	-37.9	20.7	15.9	-5.5	5.3
Goldman Sachs	-9.0	-34.0	19.0	12.0	-6.2	5.5
Pantheon Maro	-6.0	-30.0	20.0	6.0	-5.0	3.0
Capital Economics	-3.5	-40.0	18.5	21.5	-5.5	7.0
Strategas	0.0	-33.3	20.0	1.0	-4.2	-
Julius Baer	-4.0	-27.0	12.0	10.0	-4.0	5.0
UBS	-5.1	-25.5	3.1	5.7	-5.2	4.3
Wells Fargo	-1.2	-22.3	7.2	4.8	-3.0	1.7
Bloomberg Economics	-3.0	-9.0	1.0	4.0	-1.4	1.5
Barclays	-1.5	-35.0	25.0	3.0	-4.5	2.4
TD Bank	-1.9	-27.0	12.8	9.0	-3.5	3.6
JPMorgan Chase	-10.0	-40.0	23.0	13.0	-7.7	6.2
Bank of America Merrill Lynch	-7.0	-30.0	-1.0	30.0	-6.0	6.1

Annualized percent change from prior quarter and year-over-year change are shown for quarterly and yearly periods, respectively.

Source: Stifel Investment Strategy data via Bloomberg, as of April 22, 2020

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Consumer spending by industry
2019, billions

Total: $4,171 (19% of GDP)

Hotels & tourism $118

Entertainment $336

Transportation $166

Restaurants & bars $840

Retail ex-food & beverage $2,711

Consumer spending

Employment by industry
Jan. 2020, thousands

Total: 30,817 (20% of payroll jobs)

Hotels & tourism 2,095

Entertainment 2,493

Transportation 1,420

Restaurants & bars 12,235

Retail ex-food & beverage 12,575

Employment
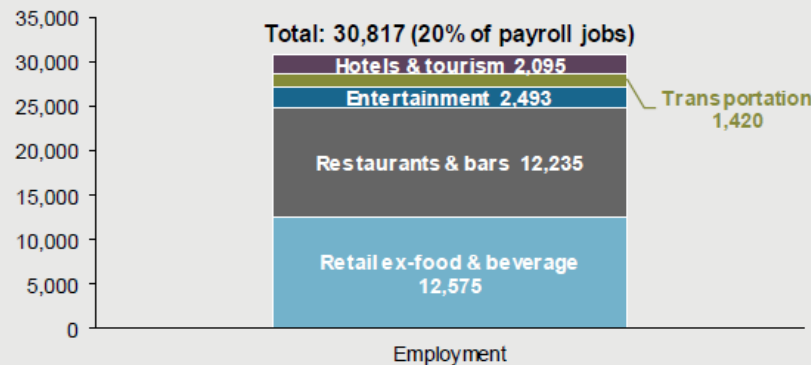
Earnings contribution by industry
Contribution to 2019 S&P 500 operating earnings

Total: $10.75 (7% of operating earnings)

Hotels & tourism $1.08

Airlines & cruises $1.88

Entertainment $1.05

Restaurants & bars $1.38

Retail ex-food & beverage $5.36

2019 Earnings contribution
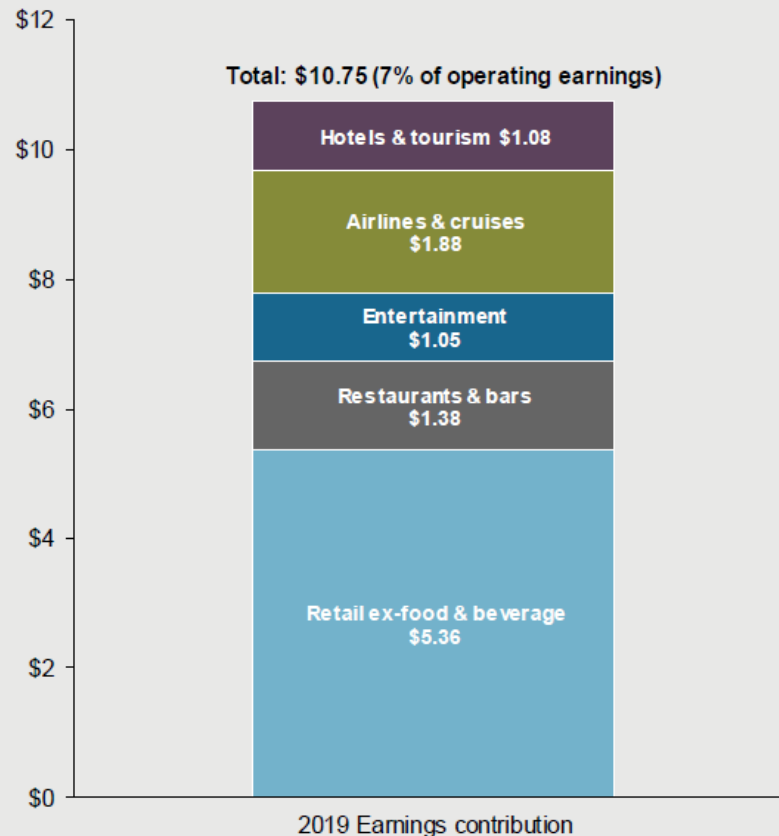
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Factset, S&P 500, J.P. Morgan Asset Management. Consumer spending (2019 annual): membership clubs, sports, amusement parks, campgrounds, movies, theaters, museums, libraries, casino gambling, purchased meals and beverages, packaged tours, air and water transportation, hotels and motels, and select retail goods and services. Employment (January 2020): air and water transportation, transit and ground passenger transportation, support activities for air and water transportation, arts, entertainment, recreation, accommodation, food services and drinking places, and retail ex-food and beverage stores. Earnings (2019 operating): hotels restaurants and leisure; airlines; select entertainment and travel booking companies; multiline and specialty retail; and textiles apparel and luxury goods.
Guide to the Markets – U.S. Data are as of April 7, 2020.

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Earnings Season Update

% of Companies Reporting Surprise

S&P 500 Earnings Growth
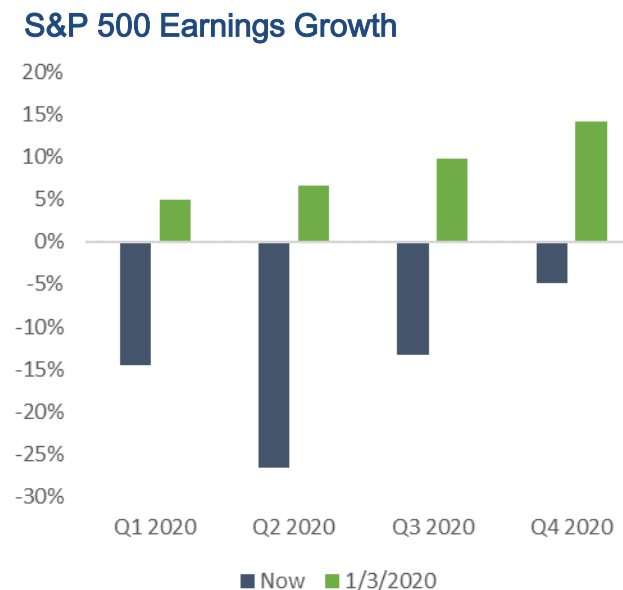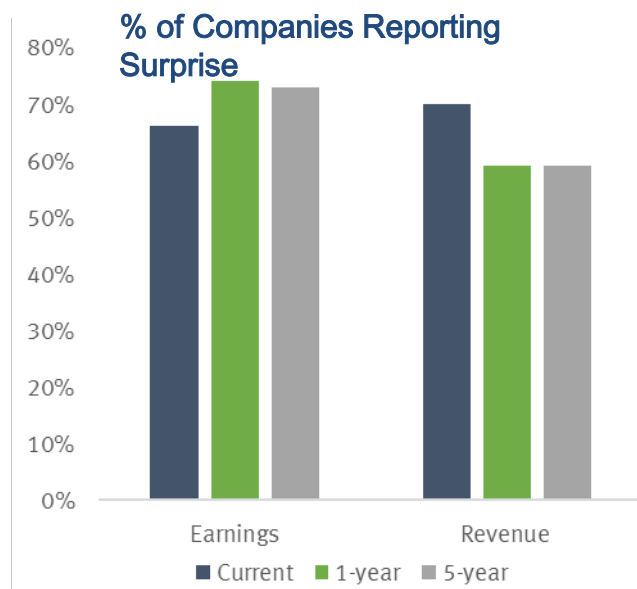
- In the first quarter of 2020, 66% of S&P 500 companies reported earnings that were better than consensus, or a positive earnings surprise
- The result is below the average results over the last year (74%) and last five years (73%). We see a stronger result for revenue, with 70% of the companies reporting a positive revenue surprise, above the one-year result (59%) and five-year result (59%)
- Looking forward to 2020, the consensus earnings growth estimate is -12.4%

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Economic Recovery as Measured by GDP

L

Substantial loss in economic growth followed by a period of stagnation

U

Economy falls and then recovers at a moderate pace

V

Economy endures a sharp but brief decline, followed by a strong recovery

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- Genome sequencing - in less than 10 days mapped the COVID-19 DNA
- At least 30 companies pursuing vaccines and treatments
  - Purpose specific vs. designed for other diseases
- Treatments to dampen side effects possibly available in 2020
- Gilead's drug Remdesivir is showing "rapid recoveries" in clinical trials
- Antibody treatments are showing most hope for treatment option
- Vaccine possibly available in 2021
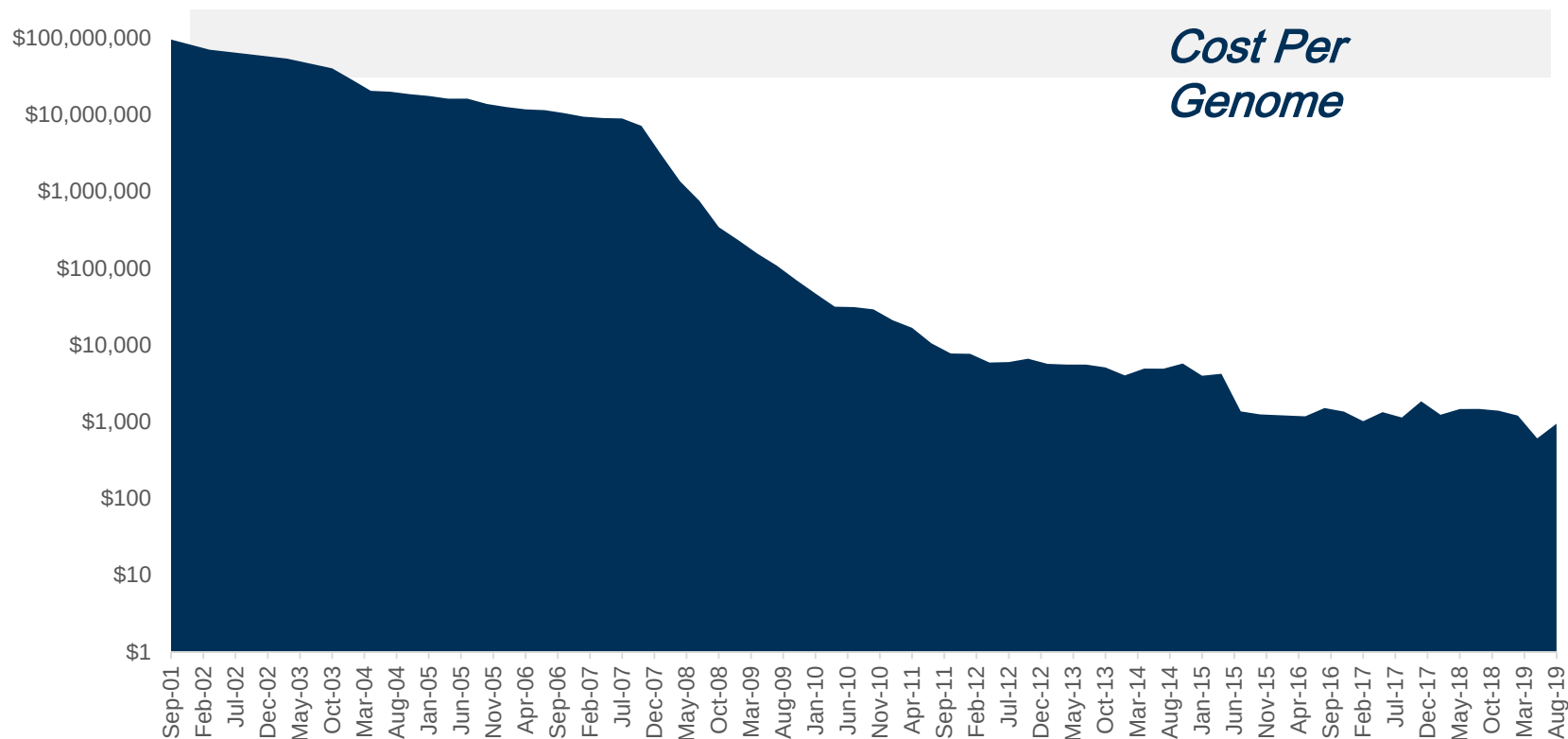
Cost Per Genome

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Provided by The White House & the CDC

Can be implemented at State or County level

Guidelines for All Phases

✓ Practice Good Hygiene

✓ Stay Home if Sick

✓ Social Distancing

✓ Contact Tracing & Testing

State or Regional Gating Criteria

- 14-day downward trajectory of symptoms

- 14-day downward trajectory of cases

- Hospitals can treat all cases and test at-risk healthcare workers

Guidelines: Opening Up America Again

Provided by The White House & the CDC

Phase One	Phase Two	Phase Three
• Vulnerable shelter in place	• Vulnerable shelter in place	• Vulnerable shelter back to work
• Avoid groups more than ten	• Avoid groups more than 50	• Minimize time spent in crowds
• Telework, return in phases	• Encourage Telework	• No workplace restrictions
• Minimize non-essential travel	• Non-essential travel resumes	• Non-essential travel allowed
• Large venues, gyms open with physical distancing	• Large venues, bars, gyms open with physical distancing	• Large venues with physical distancing
• Schools, bars closed	• Schools open	• Keep gyms clean, have more space in bars

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Betting Odds:
Which Party Will Win the 2020 Presidential Election (PredictIt)

Democrat
52%

Republican
50%
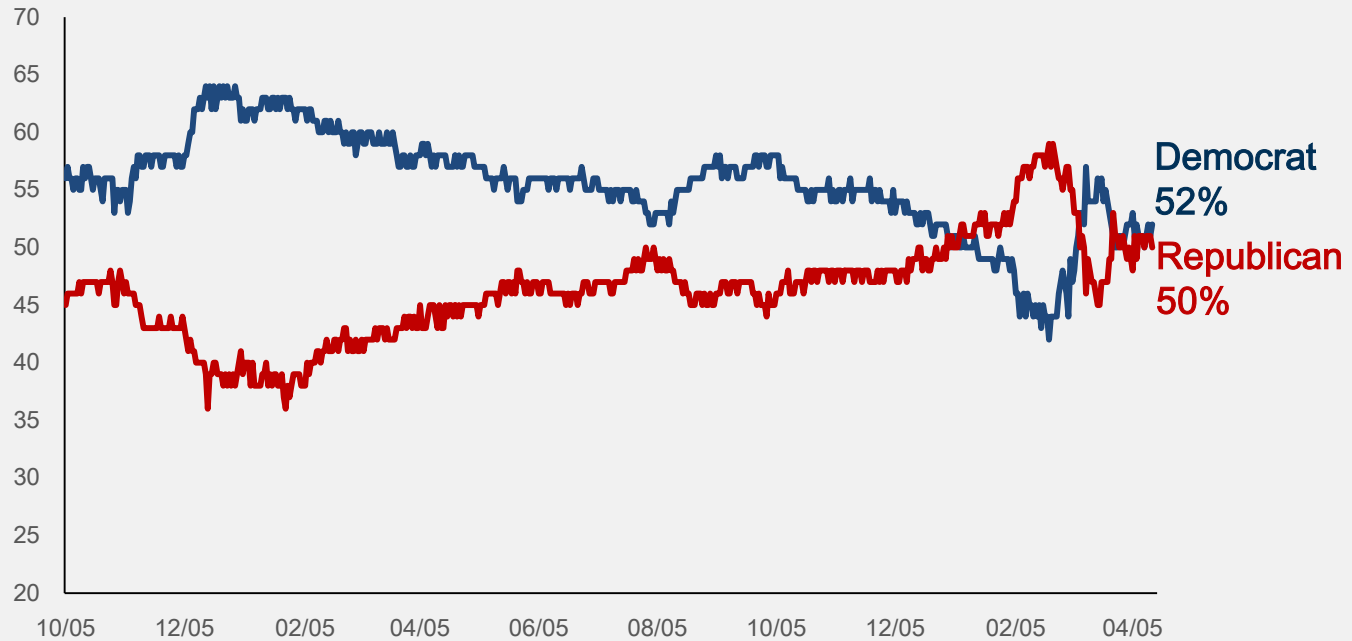
Source: Stifel Investment Strategy via Strategas Research Partners and PredictIt, as of April 16, 2020

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BRIEF**

Base Case: 60% Probability

- The coronavirus severely impacts consumers, businesses, and trade
- Despite monetary and fiscal support, the U.S. is in a recession, but recovers in the second half of 2020
- Earnings growth turns negative, but recovers towards the end of the year
- U.S. economy begins to re-open in May/June

Bull Case: 15% Probability

- Coronavirus cases subside sooner than expected and a treatment is developed this year
- Global monetary and fiscal stimulus works well to support the economy
- Strong manufacturing recovery - productivity and wage growth increase
- The re-opening of the economy runs smoothly without a resurgence in cases

Bear Case: 25% Probability

- Coronavirus re-emerges triggering further lockdowns
- Despite significant policy support, the economy experiences material damage
- Economy takes longer to recover than expected

Common Investor Biases:

Loss Aversion

Most investors have a natural aversion to losing money but studies indicate that losses have a much stronger impact on preferences than do gains: people care a lot more about losing a dollar than they do about making a dollar. Investors subject to this bias could panic sell during sharp market declines.

Herd Mentality

The herd behavior is usually when individuals tend to behave like the larger group they are associated with. Individually, they might not have necessarily made those choices. Some of the common reasons could be acceptance by the group, member influence (positive or negative), idea that large group could not be wrong.

Recency Bias

Another common bias is recency bias where we most easily remember something that has happened recently and this feeling makes us uncomfortable. During volatile periods, investors are vulnerable to short-term decision-making that could undermine their long-run success.

STIFEL

If one missed the top 22 trading days since 1997, the cumulative S&P 500 return would almost be flat.

It's important to have fortitude and stay invested, especially at times of market volatility!
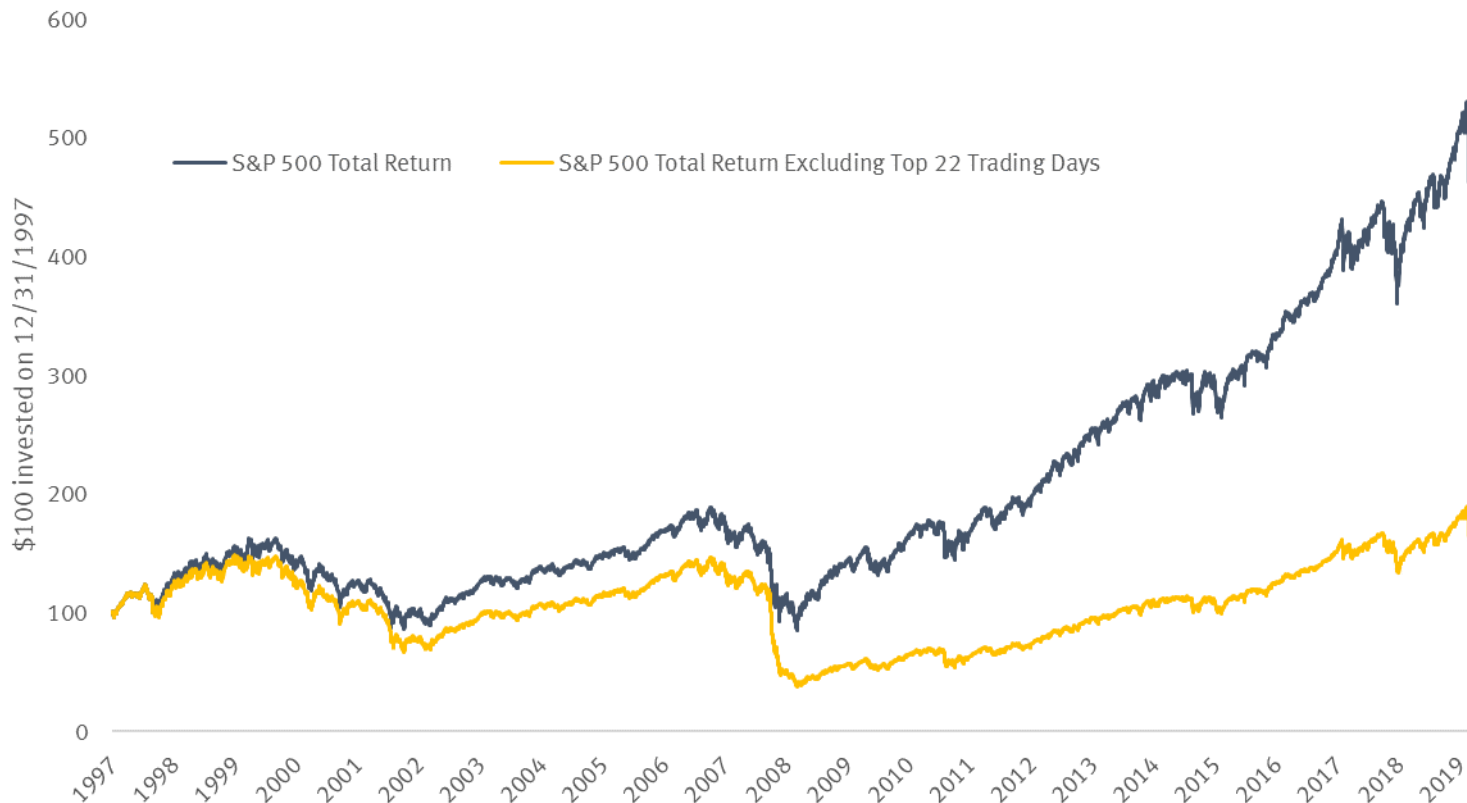
Source: Stifel Investment Strategy via Bloomberg, as of April 1, 2020; latest data point is based on intra-day price.

Our Proprietary Financial ID

- Questionnaire which results in a high-resolution image of how the investor thinks and feels about investing

- Helps us understand how to create an investment experience that is supportive of the investor's financial goals

- Investments are mapped to Financial ID characteristics

Our Financial ID vs Traditional Risk Tolerance

TRADITIONAL RISK TOLERANCE

- Account-based
- Time horizon
- Income requirements
- Liquidity needs

OUR FINANCIAL ID

RISK ATTRIBUTES

- Risk Attitude – personal appetite for risk
- Composure – ability to withstand volatility
- Market Involvement – depth of connection to markets

DECISION STYLE

- Perceived Investment Expertise – degree of acumen (self score
- Degree of Delegation – comfort with giving up control
- Belief in Skill – can managers outperform

Lower Composure clients tend to react when markets correct

Financial ID*

Risk Attitude*

Composure

Market Involvement
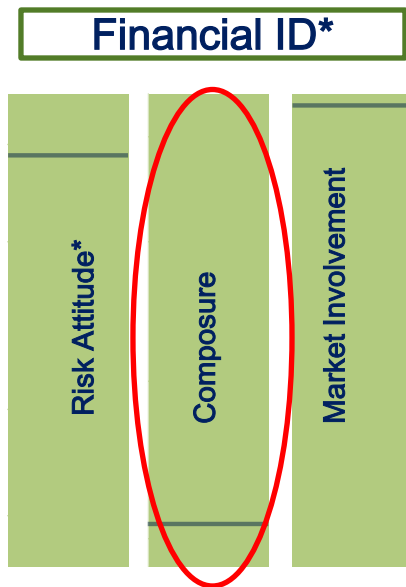
What is Composure?

How emotionally engaged you tend to be with the investment journey – how much you feel and respond to short-term gains and losses. Such investors typically get stressed or anxious during short-term market swings.

What do we recommend for clients with Low Composure?

We recommend holding a little more cash that can provide some cushion. This can also act as dry powder to redeploy on market weakness.

We also recommend rebalancing portfolios, where necessary (for example, trimming equities) or "selling your winners" to overcome certain behavioral biases. Managers or Investment strategies that aim to protect the downside could be suitable for clients with lower composure.

*The Financial I.D. understands varied aspects of an investor's financial identity in a scientific manner. The results build a highly detailed profile of their financial preferences and risk attitudes. We can use this high-resolution picture of our client as a starting point for designing an optimal, personalized Investment Portfolio -- one that matches both their financial identity and their investment objectives. It is a 36 question questionnaire and measures investors risk attitudes and decision style on a scale of six dimensions.

- Questionnaire used to understand an investor's risk attitudes and decision making preferences.

- 36 questions, takes about 10 minutes to complete

- Please contact your Financial Advisor for a copy of the questionnaire.

STIFEL

144 ASSET ALLOCATION MODELS FOR YOUR SELECTION

6
Risk
Profiles

Conservative

Moderately
Conservative

Moderate

Moderate
Growth

Moderately
Aggressive

Aggressive
Growth

2
Equity
Choices

2
Fixed
Income
Choices

U.S. Focused

Global

Tax Sensitive

Taxable

3
Levels of
Liquidity

Tier 1

Tier 2

Tier 3

2
Time
Frames

Strategic
(Long Term)

Dynamic
(Near Term)

Dynamic Asset Allocation

▲ overweight ▼ underweight ◼ neutral

Asset Class		Previous	Current	Comments
EQUITY	**U.S. Equity**	▼	▲	Equities have entered a bear market as the coronavirus pandemic is expected to lead to a severe recession in the U.S. and abroad. The U.S. economy was on solid footing prior to the outbreak, and we expect the enormous fiscal and monetary stimulus to provide support for a strong recovery. We recommend a diversified approach to investing in U.S. and non-U.S. equity. However, when investing dynamically versus our Strategic Asset Allocation (SAA), our dynamic leaning is to overweight U.S. equities given the perceived higher quality of U.S. companies relative to their international counterparts.
	U.S. Large Cap	◼	▲	Many industries of the economy have been forced to reduce output or close altogether. This is expected to have a significant impact on company earnings and cash flow. This will especially prove to be a challenge for smaller companies, which tend to have lower profit margins and weaker financials. In the current environment we are modestly overweight U.S. large cap equities relative to small cap.
	Large Value vs. Large Growth	▲ ▼	▼ ▲	We expect companies in the Large Cap Value segment of the market to underperform in the next few months as they navigate a weaker economy with diminished cash flows. Large Cap Growth valuations are now reasonable given the decline in prices, and some of the underlying companies in this segment have a stronger financial profile and recurring revenue streams.
	U.S. Small Cap	◼	▼	Many industries of the economy have been forced to reduce output or close altogether. This is expected to have a significant impact on company earnings and cash flow. This will especially prove to be a challenge for smaller companies that tend to have lower profit margins and weaker financials. In the current environment we are modestly overweight U.S. large cap equities relative to small cap.
	Small Value vs. Small Growth	◼	◼	We recommend a diversified approach investing in both small cap value and growth.
	Non-U.S. Equity	▲	▼	We recommend a diversified approach to investing in U.S. and Non-U.S. equity. However, when investing dynamically versus our Strategic Asset Allocation (SAA), our dynamic leaning is to overweight U.S. equities given the perceived higher quality of U.S. companies relative to their international counterparts.
	Non-U.S. Developed Markets	◼	◼	While we are underweight Non-U.S. equity relative to U.S. equity, we are neutral within non-U.S. equity between Developed and Emerging markets.
	Europe vs. Asia	▲ ▼	◼	European countries were the first hot spot for the outbreak outside of China. The European Central Bank (ECB) has taken stimulative measures, and individual countries have announced relief packages. However, Europe has been unable to reach a deal for a regional fiscal stimulus. There is the risk for EU fragmentation once the crisis is over. Japan approved a $1 trillion stimulus package, but the country is showing a resurgence in infections, and the 4Q 2019 GDP was negative due to the increased consumption tax rate.
	Emerging Markets	◼	◼	Risks are balanced. A weaker dollar and the reopening of China's economy should support emerging countries. However, weaker healthcare systems and low oil prices represent headwinds for some emerging economies. Note, within non-U.S. equity, we are neutral between Non-U.S. Developed Markets and Emerging Markets.

Our U.S. Large Cap Equity guidance is based on the Russell 1000 Index which includes the Russell Top 200 and Russell Midcap Indices.

▲ overweight ▼ underweight ▪ neutral

Asset Class		Previous	Current	Comments
FIXED INCOME	U.S. Investment Grade	▪	▪	Within Fixed Income, we are neutral between U.S. Investment Grade and U.S. High Yield.
	Corporates Gov't/Agency MBS	▪	▲ ▼ ▼	The Fed's backstop for corporate bonds and dislocation in credit spreads has created opportunity. Our overweight is to higher rated investment grade corporates (Aaa - A rated).
	Inflation Protected	▲	▲	Inflation expectations have come down. However, the market's implied inflation expectations via swaps and the monetary and fiscal stimulus suggest there is room for inflation to surprise to the upside. Short-dated TIPs offer protection if inflation accelerates.
	Duration	▼	▼	Treasury yields across the curve have fallen to historic lows. We expect rates to rise, albeit at a slower pace. We recommend maintaining a shorter duration than the benchmark.
	U.S. High Yield	▪	▪	Credit spreads widened given the economic impact from the coronavirus and the decline in oil prices as a result of the Russia-Saudi Arabia price war. Risks of default remain high in the coming months, but this is now largely priced in. Note, within Fixed Income we are neutral between U.S. Investment Grade and U.S. High Yield.
ALTERNATIVES	Private Assets	▪	▪	For investors interested in alternative investments and able to handle illiquidity, exposure to some combination of private equity, private debt, and/or private real estate can be considered as part of a diversified portfolio.
	Hedge Funds	▪	▪	For investors interested in alternative investments and able to handle less liquidity who have conviction about manager skill, exposure to hedge funds can be a helpful part of a diversified portfolio. This is especially true in volatile, low-return environments.

The following summarizes how we deliver our economic and market analysis and corresponding investment guidance, along with some helpful links.

- Each day we broadcast *Stifel Investor Insights on iHeartRadio*.

- *Sight|Lines* is a weekly note for clients, along with a video summary and a podcast on Spotify, Apple, Omny, and Google.

- Market Pulse is shared when the S&P 500 Index moves up or down 2%.

- The monthly *Investment Strategy Brief* video series shares our update on the current economic and market environment. The podcast: Spotify, Apple, Omny, and Google.

- The weekly, monthly, and quarterly *Market Perspectives* provide a recap of the most recent period's global market results.

- The monthly Favorite 15 shares our favorite 15 slides for the month.

- *Stifel's Allocation Insights* provides our dynamic asset allocation leanings quarterly.

- The *Stifel Outlook:* provides our annual outlook and related articles.

- Stifel's Approach to Asset Allocation summarizes our asset allocation approach and provides a catalogue of various recommended asset mix models.

- The *Stifel Financial ID* video series provides an overview of our work in behavioral finance and the related *Stifel Financial ID* model.

Indices are unmanaged, do not reflect fees and expenses, and are not available for direct investment.

Past performance does not guarantee future results. Investing involves risk, including the possible loss of principal. Asset allocation and diversification do not ensure a profit or protection against loss.

Alternative Investments or Non-Traditional Assets – Alternative investments may include, but are not limited to: Real Estate Investment Trusts (REITs), Commodities, Futures, Hedge Funds, Venture Capital, Limited Partnerships, etc.

Real Estate – When investing in real estate companies, property values can fall due to environmental, economic, or other reasons, and changes in interest rates can negatively impact the performance.

Commodities and Futures – The risk of loss in trading commodities and futures can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. The high degree of leverage that is often obtainable in commodity trading can work against you as well as for you. The use of leverage can lead to large losses as well as gains.

Hedge Funds – *Investors should be aware that hedge funds often engage in leverage, short-selling, arbitrage, hedging, derivatives, and other speculative investment practices that may increase investment loss. Hedge funds can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information. While hedge funds may appear similar to mutual funds, they are not necessarily subject to the same regulatory requirements as mutual funds.*

Venture Capital – Venture capital investments involve substantial risks. The risks associated with investing in companies in the start-up or expansion stages of development are greater than those of companies in later stages, because the companies' business concepts generally are unproven and the companies have little or no track record.

Limited Partnerships – Generally, limited partnership investments are suitable only for a narrow class of relatively sophisticated investors. Limited partnership investments may be speculative in nature and be subject to resale restrictions or illiquidity. An investment is appropriate only for investors who have the capacity to absorb a loss of some or all of their investment.

Bonds – When investing in bonds, it is important to note that as interest rates rise, bond prices will fall. High-yield bonds have greater credit risk than higher quality bonds.

Duration – Duration is a measure of the sensitivity of the price -- the value of principal -- of a fixed-income investment to a change in interest rates. Duration is expressed as a number of years.

Standard Deviation – Standard deviation is a measure of the dispersion of a set of data from its mean. It is calculated as the square root of variance by determining the variation between each data point relative to the mean. If the data points are further from the mean, there is higher deviation within the data set.

International and Emerging Markets – There are special considerations associated with international investing, including the risk of currency fluctuations and political and economic events. Investing in emerging markets may involve greater risk and volatility than investing in more developed countries.

Private Equity – Private equity funds are not appropriate for all investors. Investors should be aware that private equity funds may contain speculative investment practices that can lead to a loss of the entire investment. Private equity funds may invest in entities in which no secondary market exists and, as such, may be highly illiquid. The funds are not required to provide periodic pricing or valuation information to investors and often charge high fees that can erode performance. Additionally, they may involve complex tax structures and delays in distributing tax information.

Short Positions – The investor should note that when a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker will demand more collateral and the manager might have to close out that short position at an inopportune time to limit any further losses.

Small Company Securities – Small company securities are typically more volatile and carry additional risks, since smaller companies generally are not as well established as larger companies.

INVESTMENT STRATEGY BRIEF

Bloomberg Barclays U.S. Treasury Bills 1-3 Months Index includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than three months and more than one month, are rated investment grade, and have $250 million or more of outstanding face value.

Bloomberg Barclays U.S. Corporate IG Index is an unmanaged index considered representative of fixed-rate investment-grade taxable bond debt.

Bloomberg Barclays U.S. Aggregate Corporate Index is an unmanaged index considered representative of fixed-rate investment-grade taxable bond debt.

Bloomberg Barclays U.S. Corporate High Yield is an unmanaged index considered representative of fixed-rate, noninvestment-grade debt.

Bloomberg Barclays U.S. Government Bond Index is an unmanaged index considered representative of fixed-rate, investment-grade US Government debt.

Bloomberg Barclays Global Aggregate This index provides a broad-based measure of the global investment-grade, fixed-rate debt market.

DXY Index is a measure of the value of the U.S. dollar relative to the value of a basket of currencies of the majority of the U.S.'s most significant trading partners.

S&P 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

Russell 1000 Index represents approximately 1,000 of the largest companies in the U.S. equity markets, the Russell 1000 is a subset of the Russell 3000 Index. The Russell 1000 (maintained by the Russell Investment Group) comprises over 90% of the total market capitalization of all listed U.S. stocks and is considered a bellwether index for large cap investing.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 index.

MSCI EAFE Index captures large and mid cap representation across Developed Markets countries around the world, excluding the U.S. and Canada. With 914 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets (EM) Index captures large and mid cap representation across 23 Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Morgan Stanley Market implied pace of hikes index (MSPOKE) is the number of Fed rate hikes in the 12 months following the first rate hike implied by the Eurodollar interest rate futures market.

The **MSCI World Index** is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of developed markets.

Wilshire 5000 Index is a market-capitalization-weighted index of the market value of all stocks actively traded in the United States.

VIX Index shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options.

EURO STOXX 50 is a stock index of Eurozone stocks designed by STOXX, an index provider owned by Deutsche Börse Group. According to STOXX, its goal is "to provide a blue-chip representation of Supersector leaders in the Eurozone

Cash & Cash Eq. is represented by the Bloomberg Barclays U.S. Treasury 3-6 months Bill Index, comprised of treasury bills issued by the U.S. government with less than one year to maturity.

U.S. Gov't Bonds is represented by the Bloomberg Barclays U.S. Government Bond Index, comprised of the U.S. Treasury and U.S. Agency indexes.

U.S. Corp IG Bonds is represented by the Bloomberg Barclays U.S. Corporate Bond Index, comprised of the investment grade, fixed –rate, taxable corporate bond market.

High-Yield Bonds is represented by the Bloomberg Barclays U.S. Corporate High Yield Bond Index, comprised of U.S. Dollar denominated, high-yield, fixed- rate corporate bond market securities.

U.S. LC (Large Cap) equities is represented by Russell 1000 Index, comprised of 1,000 of the largest U.S. securities based on a combination of their market cap and current index membership.

U.S. SC (Small Cap) equities is represented by the Russell 2000 Index, comprised of 2,000 of the smallest U.S. securities based on a combination of their market cap and current index membership.

Dev Int'l Equities is represented by the MSCI EAFE Index, comprised of equity securities that belong to markets outside of the U.S. and Canada.

EM Equities is represented by the MSCI EM Index, comprised of equity securities that belong to emerging markets.

Moderate Bench stands for moderate benchmark portfolio return which is a blended portfolio of stocks (60% weight, represented by MSCI AC World Index) and bonds (40% weight, represented by Bloomberg Barclays U.S. Agg Gov/Credit).

MSCI AC World Index is comprised of equity securities belonging to 23 developed markets and 24 emerging markets countries.

Bloomberg Barclays U.S. Government/Credit Bond Index is comprised investment grade, dollar-denominated, fixed-rate Treasuries, government-related and corporate securities.

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INVESTMENT STRATEGY BRIEF