



CORONAVIRUS, INTEREST RATES & VOLATILITY

WHERE DO WE GO FROM HERE?

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Logistics

- Attendees in listen only mode.
- Questions welcome. Type question using "Question" function on control panel, and we will answer following the presentation.
- Audio or technical issues during webinar, call GoToWebinar at 1-800-263-6317.
- We are recording this session and webinar replay will be available at www.nirsonline.org/events/webinars.



Today's Speakers



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Jim McDonald
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Erick Noensie, Ph.D.
Senior Healthcare Analyst

AGENDA

1

The progression of Coronavirus

2

Positioning portfolios to weather the storm

3

Q&A

THE PROGRESSION OF CORONAVIRUS

COVID-19 vs. Other Outbreaks

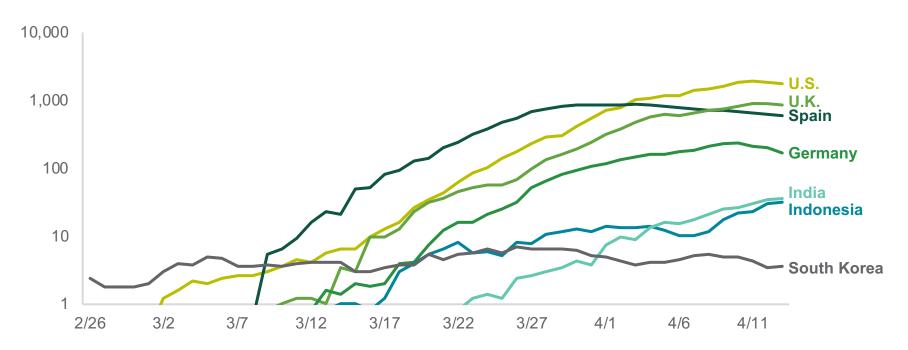
	Year	Mortality Rate	Global # Infected	Global # Deaths	U.S. # Infected	U.S. # Deaths	# of U.S. Hospitalization
COVID-19	2020	0.6-2.3%	>2 million*	>125,000	>600,000*	>26,000	Est. 300K** (15% rate)
Relevant Outbreak References							
SARS (Severe Acute Respiratory Syndrome)	2002-03	10%	~8,000	774	8	0	-
MERS (Middle East Respiratory Syndrome)	2012	30%	2,494	858	2	0	-
Swine Flu (H1N1)	2009	0.02%	11-21% population	151,700- 575,400	60.8 million	12,469	>274,000 (0.4%)
Seasonal Flu (all numbers annual)	Annual	0.1-0.2% (U.S.)	5-10% of Adults	250K-500K	9-45 million	12,000- 61,000	140K-810K (1.2-2.0%)

^{*}Actual infected likely significantly higher as testing has been backlogged.

^{**}Assumes 300K hospitalized patients is threshold of U.S. capacity, ~10% more than H1N1 cases. Uses 15% hospitalization rate to calculate 2 million infected. Source: Northern Trust Asset Management, CNN, CDC, WHO, The Lancet, Journal of American Medical Association, PLoS One, BMC, NCBI. Data as of 4/14/2020

Current COVID-19 Trajectories in Three Zones

COVID-19 MORTALITY PER DAY (LOG SCALE, 5-DAY MOVING AVERAGE)



Source: Northern Trust Asset Management, Bloomberg. Data through 4/13/2020.

Estimated Requirements and Timeline for Containment

TESTING

Swab tests are key for containment while antibody tests are not yet proven.

- We estimate the U.S. needs to perform ~200,000 swab tests per day and 3.6M total
- Antibody tests still require proof but could accelerate recovery

TIMELINES

We estimate U.S. mortality rates could decline into May/June.

- Case rates could be low enough to begin a first phase of containment in May or June
- If community spread can be eliminated, second containment phase could occur in July to August

CONTAINMENT

Key variables for containment:

- Effectiveness of social distancing by region
- Sufficient PPE
- Contact-tracing mobile apps
- Herd immunity

Source: Northern Trust Asset Management

Potential Treatments and Vaccines

We believe public health measures are more likely to contain COVID-19 over the next 12-18 months than a new drug or vaccine.

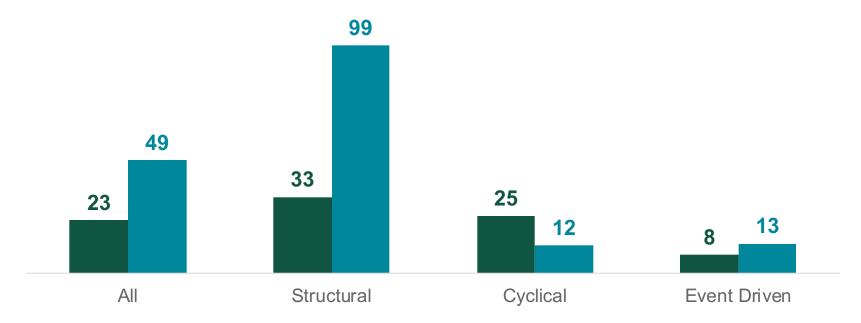
Remdesivir Hydroxy-chloroquine Antibodies Vaccines

POSITIONING PORTFOLIOS TO WEATHER THE STORM

Bear Market Analysis

AVERAGE DURATION OF BEAR MARKETS (MONTHS)

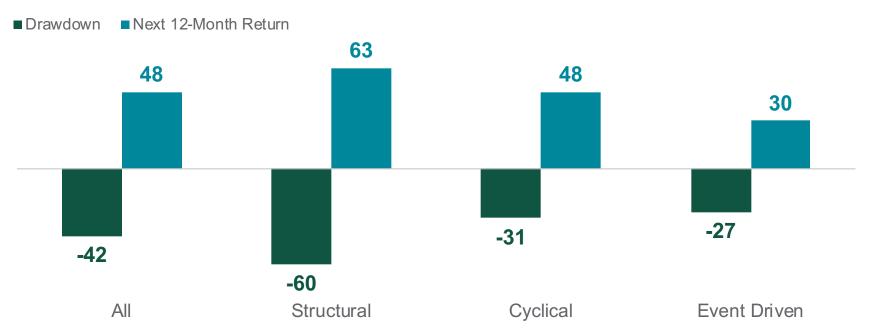
■ Peak-to-Trough ■ Recovery to Prior Peak



Source: Northern Trust Asset Management, Bloomberg, GS Portfolio Strategy Research. Next 12-month return denotes one-year return from trough. Averages shown for all S&P 500 bear markets from 1/1/1927 – 2/18/2020 using price returns. Bear market defined as 20% or greater decline from recent peak. Months rounded to nearest whole number. Past performance does not guarantee future results.

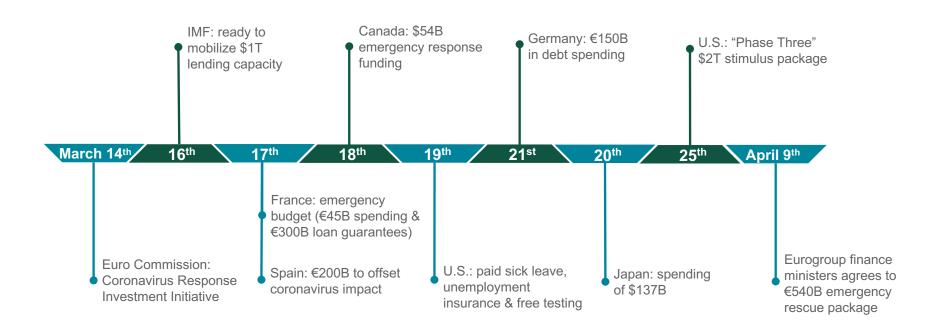
Event-Driven Bear Markets Are Short, But Still Pack a Punch

MAGNITUDE OF DRAWDOWN AND RECOVERY (%)



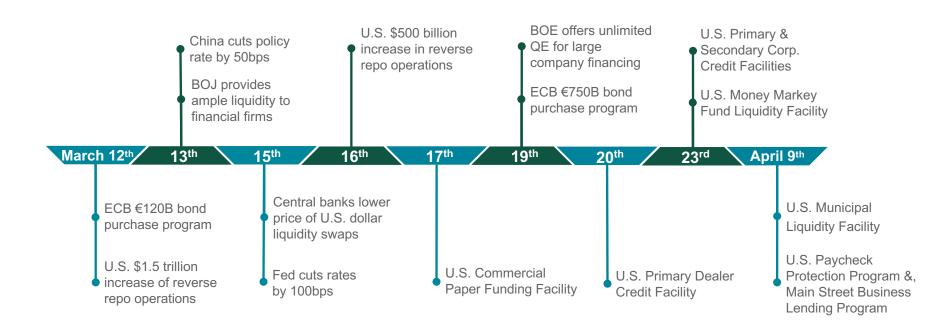
Source: Northern Trust Asset Management, Bloomberg, GS Portfolio Strategy Research. Next 12-month return denotes one-year return from trough. Averages shown for all S&P 500 bear markets from 1/1/1927 – 2/18/2020 using price returns. Bear market defined as 20% or greater decline from recent peak. Months rounded to nearest whole number. Past performance does not guarantee future results.

Fiscal Policy Response



Source: Northern Trust Asset Management

Monetary Policy Response



Source: Northern Trust Asset Management

The Rate of Change in Confirmed Cases is Key for Markets

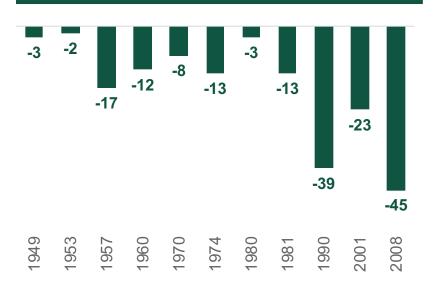
NEW DAILY CONFIRMED COVID-19 CASES



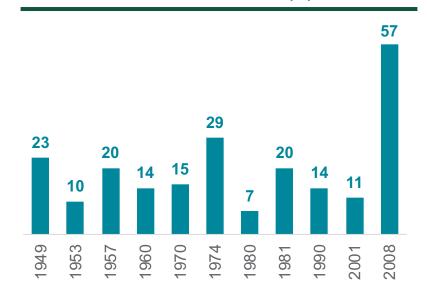
Source: Northern Trust Asset Management, Bloomberg. Data through 4/13/2020.

Earnings Rebounds Have Inevitably Followed Drawdowns

EPS DRAWDOWN (%)



NEXT-4-QUARTER EPS REBOUND (%)



Source: Northern Trust Asset Management, Bloomberg. Returns represent S&P 500 Index of the 500 largest U.S. publicly traded companies.

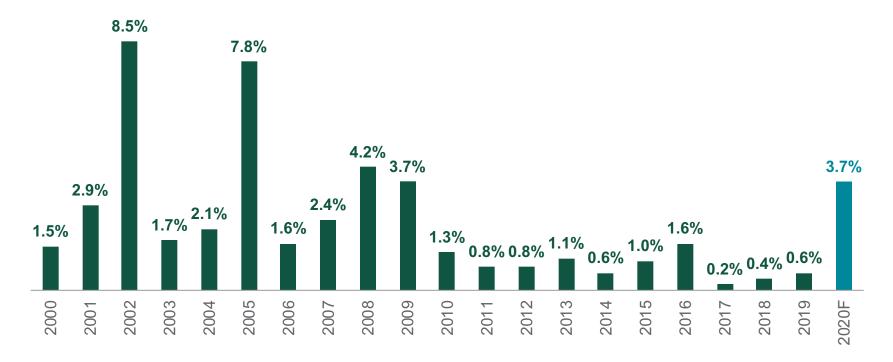
Watching Market Signals



Source: Northern Trust Asset Management, Bloomberg. Data from 2/28/2019 - 4/13/2020.

Expect The Highest Number of Fallen Angels in 10 Years

PERCENT OF HIGH GRADE MARKET INDEX DEBT DOWNGRADED TO HIGH YIELD



Source: Northern Trust Asset Management, JP Morgan. Data is ex-EM issuers. Forecasts of financial market trends that are based on current market conditions constitute CMAWG judgment and are subject to change without notice.

Tactical Positioning: Favoring U.S. Assets

	ASSET CLASS		STRATEGIC (%)		FICAL RWEIGHT (%)	TACTICAL (%)
RISK	ЭЕ	Cash	2	-2		0
	псоп	U.S. Investment Grade	29	-4		25
	Fixed Income	Inflation-Linked	5	-5		0
	ίΞ	High Yield	3		6	9
RISK ASSETS	Equities	U.S. Equity	16		6	22
		Dev. Ex-U.S. Equity	10	-1		9
	Ш	Emerging Market Equity	4	-4		0
	sets	Global Natural Resources	3	-1		2
	Real Assets	Global Real Estate	1		3	4
	Rea	Global Listed Infrastructure	1		2	3
	Alts	Hedge Funds*	14		0	14
	₹	Private Equity*	12		0	12

^{*}Note: Due to illiquid nature of Alternative asset classes, Northern Trust does not make tactical recommendations.

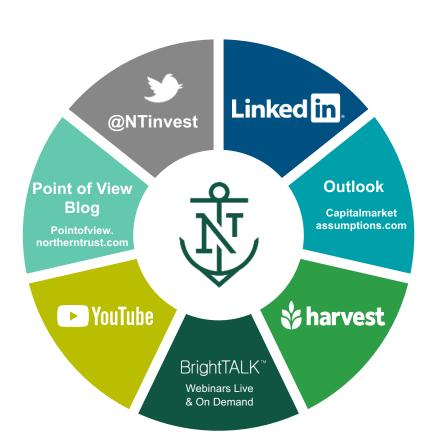
Source: Northern Trust Investment Strategy. Allocations above reflect Northern Trust's Perpetual Capital Model (Moderate risk profile). Tactical recommendations (in the form of over/under/equal weights) are displayed in the bar chart. Allocations as of 4/9/2020. SAA = Strategic Asset Allocation. TAA = Tactical Asset Allocation.

QUESTIONS

Please type your question(s) into the "Question" field in your control panel. We will read aloud and reply.

Follow Up Questions: Dan Doonan: dan@nirsonline.org | 202.457.8190

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