

A business of Morgan Stanley 760 W. Main, Barrington, II



Graystone Consulting

2nd Quarter 2020 Investment Outlook

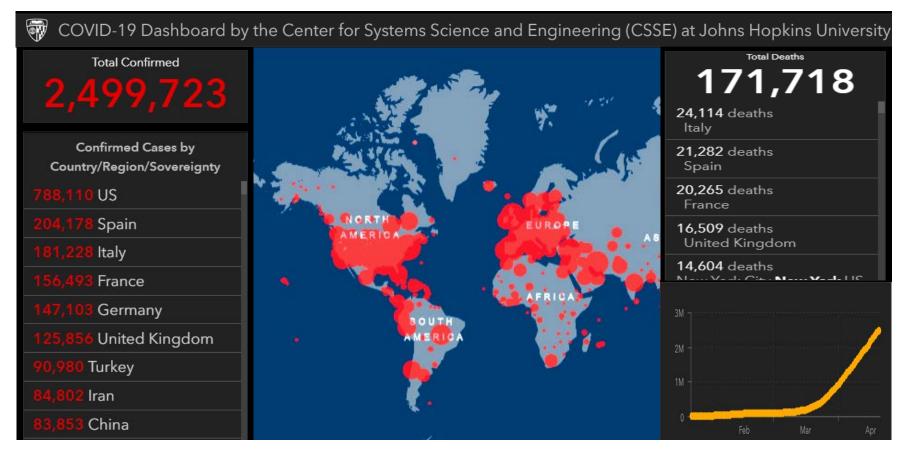
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Source: Johns Hopkins https://coronavirus.jhu.edu/map.html as of 04-15-2020



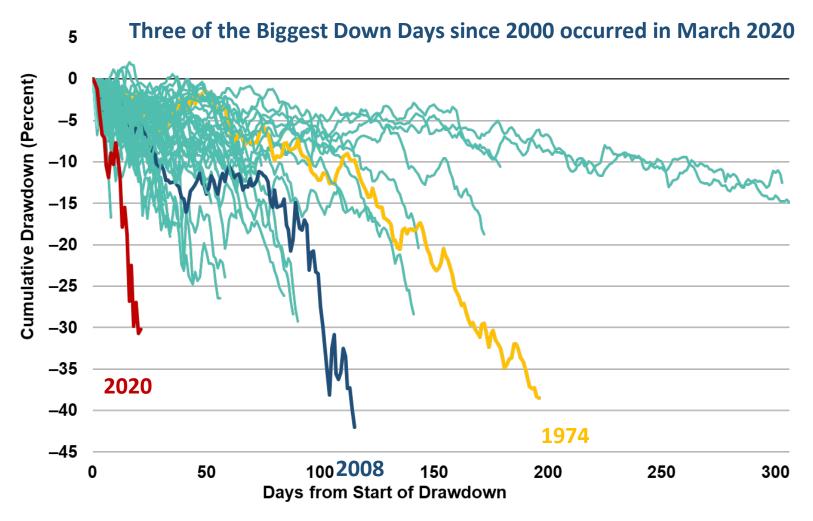
The Covid-19 Crisis has infected most of the population centers of the world, leading to Lock Down of businesses and Universities

Covid-19 Crisis of 2020

Most Rapid Stock Market Correction in Decades

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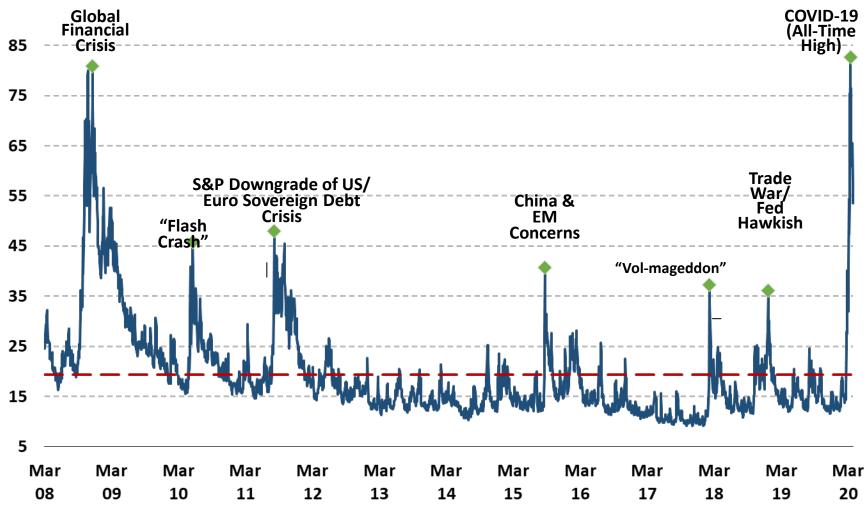
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Source: Alliance Bernstein CMO April, 2020 Chart shows all drawdowns greater than 5% since 1965. Global equities are represented by MSCI World (USD). of March 19, 2020

The Covid-19 Crisis precipitated the fastest equity decline in several decades – Impacting both revenue and Endowment valuation.

The VIX Attains a New High-Water Mark



Source: Alliance Bernstein CMO April 2020 Data from March 1, 2008, through March 31, 2020

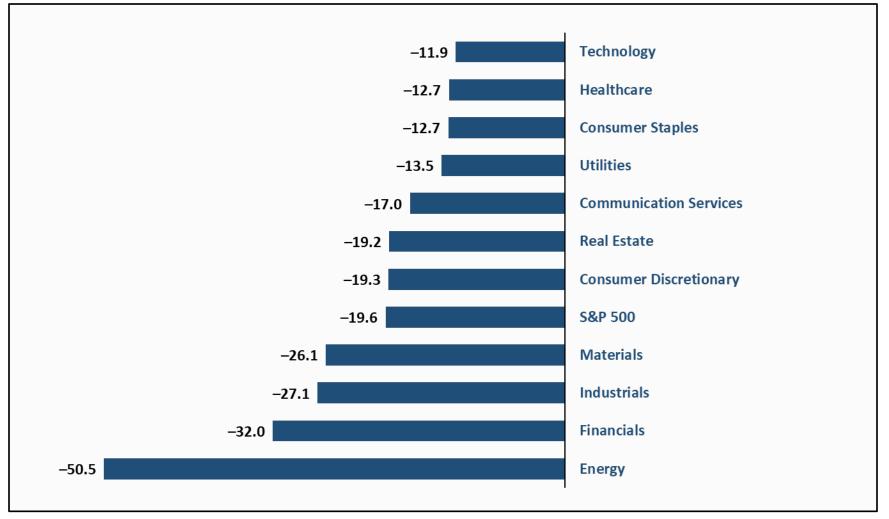


VIX is a real-time market index on CBOE that represents the market's expectation of 30-day forward-looking volatility. Proxy for market fear.

Market Response

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Not a One Spared: S&P 500 and Sector Total Returns



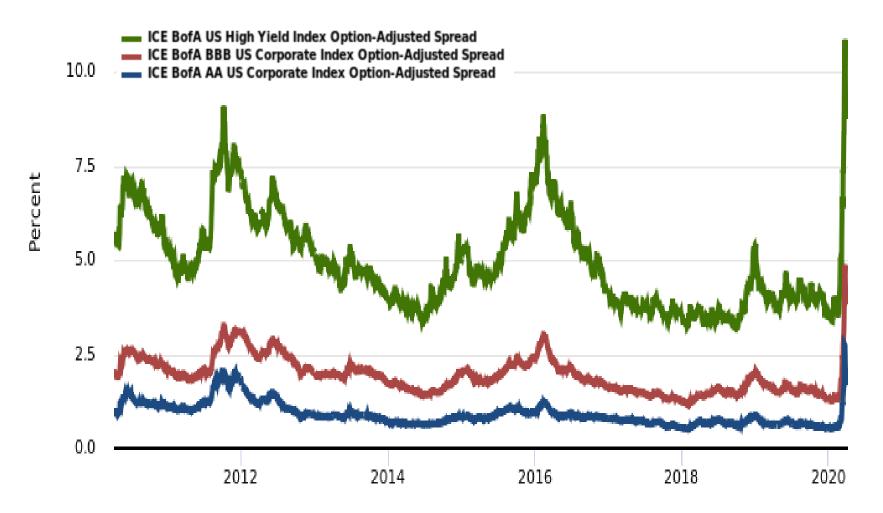
Source: Alliance Bernstein CMO April 2020 Data first quarter ending March 31, 2020

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While no sector was spared, Value sectors: Energy, Financials and Industrials were impacted worse than others.

Corporate Spreads 'Blow Wide Open'



Ice Data Indices, LLC, ICE BofA US High Yield Index Option-Adjusted Spread [BAMLH0A0HYM2], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/BAMLH0A0HYM2, April 14, 2020.

Graystone Consulting A spread of 8% or more over Treasury indicates a fear by bond buyers that recession is coming and defaults may rise.

Real (After Inflation) Yield of 10 Year Treasury

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Board of Governors of the Federal Reserve System (US), 10-Year Treasury Constant Maturity Rate [DGS10], https://fred.stlouisfed.org/series/DGS10, April 21, 2020. U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL]

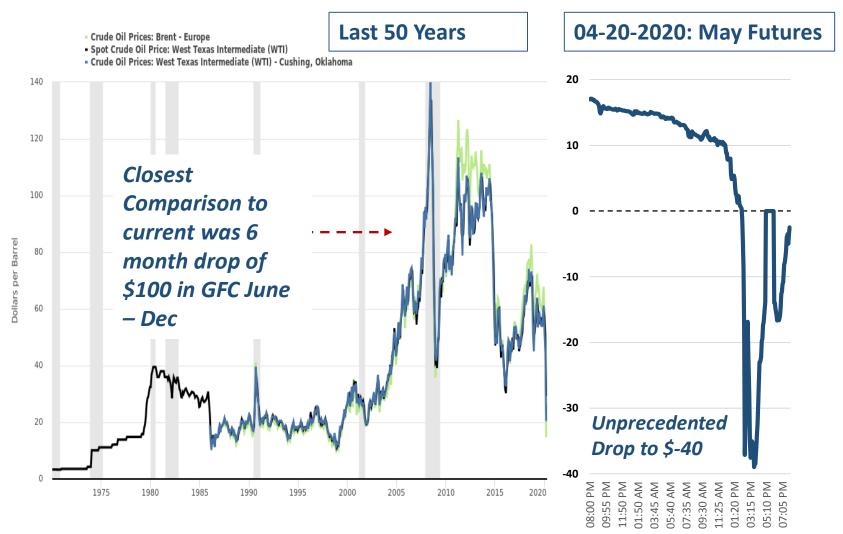
Negative Yielding Bonds creates difficulty for Endowment Funds trying

to distribute funds for spending or grow for future needs.

Market Response

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Oil Prices Collapse

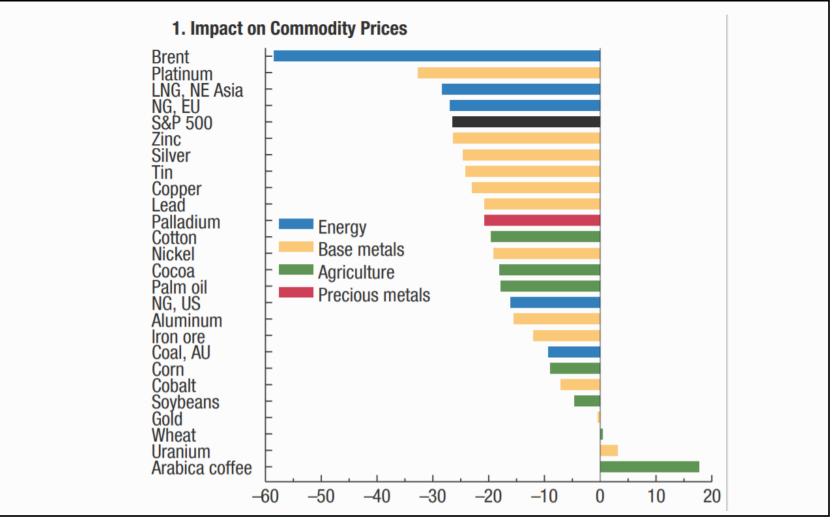


Federal Reserve Bank of St. Louis, Spot Crude Oil Price: West Texas Intermediate (WTI) [WTISPLC], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/WTISPLC, April 14, 2020 Reuters April 20-2020.



When there is nowhere to deliver or store crude oil, traders sell at any price – but one day \$60 price drop to -\$40 was beyond imaginable.

Commodity Prices Collapse

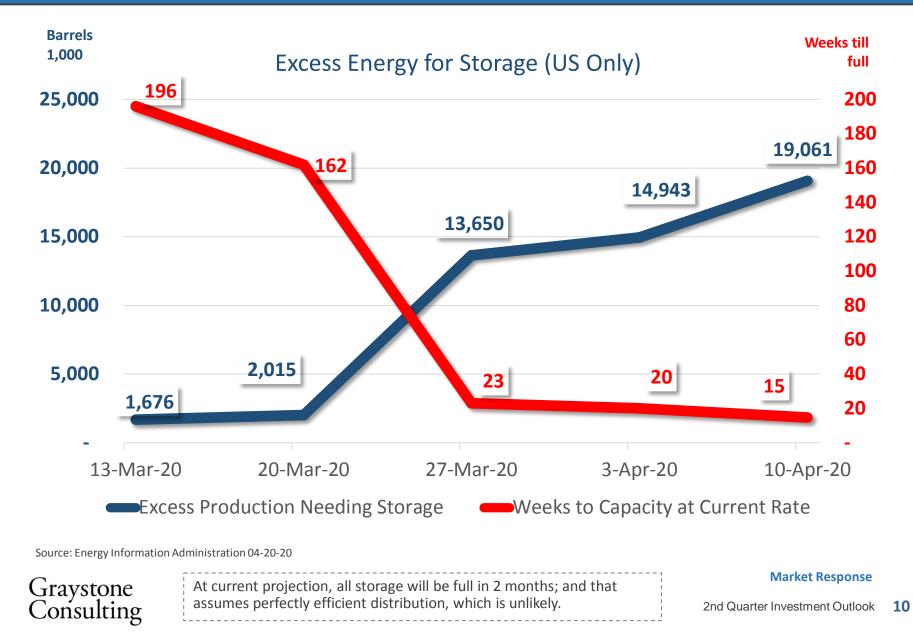


Source IMF World Economic Outlook 04-14-2020



Demand for Energy and Industrial Metals has plummeted While Gold and Groceries stay in Demand

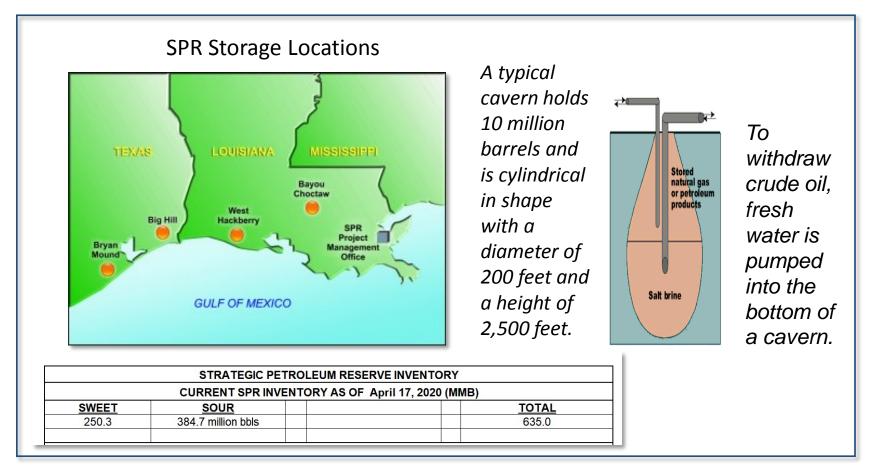
Energy Storage Capacity



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SPR Total Storage Capacity 713.5MMB Current Available78.5MMB

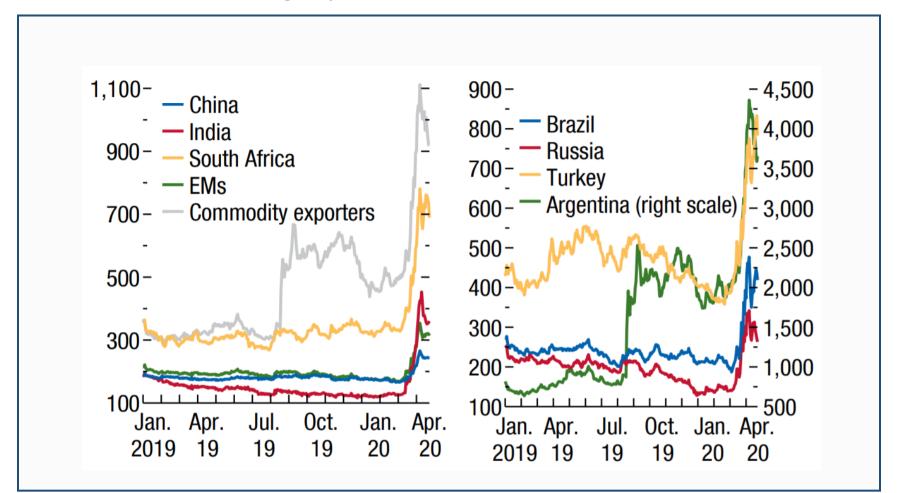


Source: Energy.gov <u>https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/spr-storage-sites, https://primis.phmsa.dot.gov/</u>

The SPR provides an emergency source of energy. On April 20, Trump suggested buying oil or leasing the storage to oil companies.

Emerging Markets Sovereign Spreads 'Blow Out'

Sovereign Spreads: Basis Points



IMF World Economic Outlook April 14-2020



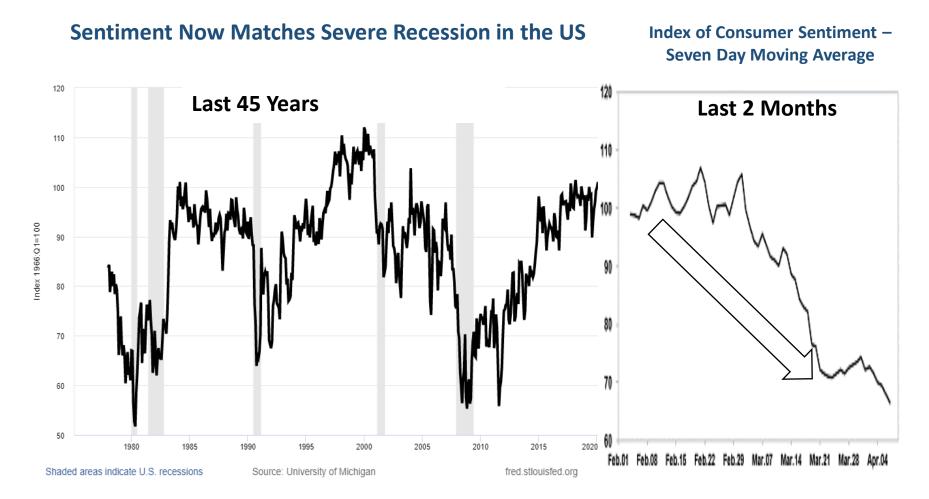
Bond yields in EM countries climbed, especially commodity exporting countries.

Market Returns

ASSET CLASS Global Equity	INDEX IN USD	1-MONTH	YTD	1-YR	3-YR ANN	5-YR ANI
Global Equity	MSCI All Country World	-13.4%	-21.3%	-10.8%	2.0%	3.4%
US Equity	S&P 500	-12.4%	-19.6%	-7.0%	4.0%	6.2%
International Equity	MSCI All Country World ex US	-14.4%	-23.3%	-15.1%	-1.5%	-0.2%
Emerging Markets Equity	MSCI Emerging Markets	-15.4%	-23.6%	-17.4%	-1.3%	-0.2%
Global Fixed Income						
IG Fixed Income	Barclays US Aggregate	-0.6%	3.1%	8.9%	4.8%	3.3%
Inflation-Linked	Barclays Inflation-Linked	-3.4%	0.3%	4.5%	3.7%	3.6%
High Yield	Barclays Global High Yield (H)	-13.4%	-14.5%	-9.2%	-0.3%	2.6%
EM Fixed Income	JP Morgan EM Bonds in USD	-11.1%	-15.2%	-6.5%	-1.3%	1.0%
Alternative Investments Global REITs	FTSE EPRA/NAREIT GI REITs	-22.3%	-28.4%	-23.0%	-2.4%	-0.8%
Commodities	Bloomberg Commodities	-12.8%	-23.3%	-22.3%	-9.2%	-8.4%
MLPs	Alerian MLP	-47.2%	-57.2%	-61.0%	-29.6%	-21.1%
Hedged Strategies	HFRX Hedge Fund Index	-5.9%	-6.9%	-1.4%	-0.6%	-0.7%
Managed Futures	HFRX Macro/CTA Index	-1.0%	-1.3%	4.4%	1.1%	-1.1%
Private Real Estate	NCREIF Private Real Estate	-	0.0%	6.4%	6.7%	8.2%
Global Cash Cash	Citigroup 3-month T- Bill	0.1%	0.4%	2.0%	1.7%	1.1%
Other Fixed Income	Citigroup 5-month 1- bill	0.1/0	0.4/0	2.0/0	1.7/0	1.1/0
other rixed income	Barclays Municipal Bond	-3.6%	-0.6%	3.8%	4.0%	3.2%

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Stocks which had been down 34% finished the quarter -19.6. Energy, Commodities and REITs suffered severely.



University of Michigan, University of Michigan: Consumer Sentiment [UMCSENT], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/UMCSENT, April 13, 2020.

Graystone Consulting The speed of Consumer Sentiment decline is unmatched. Consumers make up more than 70% of U.S. GDP. 2r

Consumer Response

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Auto 'Crash'



'Shelter in Place' has shut down production and halted auto sales

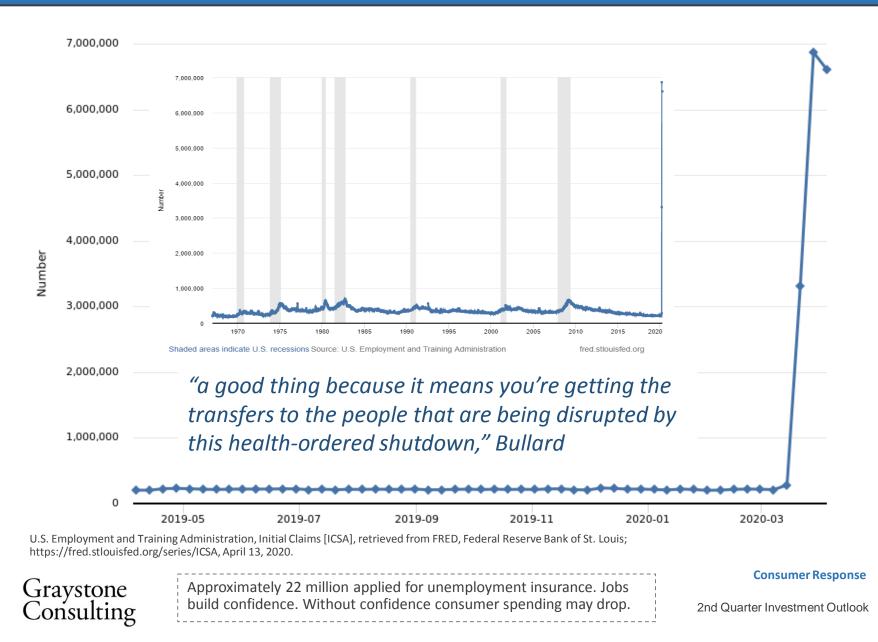
U.S. Bureau of Economic Analysis, Total Vehicle Sales [TOTALSA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TOTALSA, April 14, 2020

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As "discretionary" items, auto sales often drop precipitously in economic crisis and typically recover over 2 to 5 years.

Consumer Response

Initial Unemployment Claims

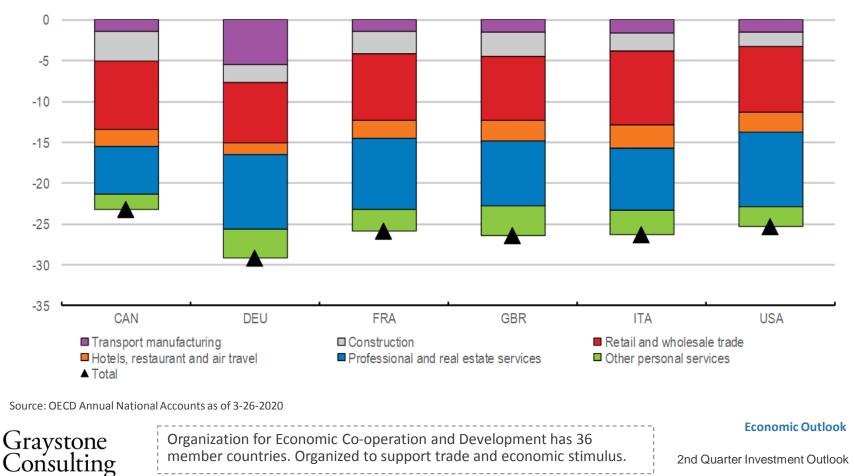


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OECD Outlook for GDP

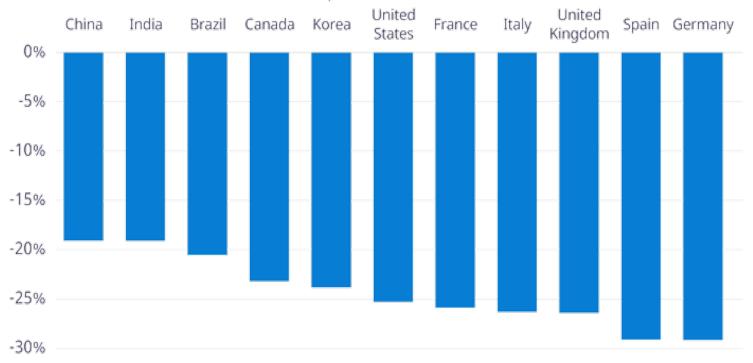
The potential impact of partial or complete shutdowns on activity in the selected G7 economies

Per cent of GDP at constant prices



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The initial impact of containment measures will be felt worldwide



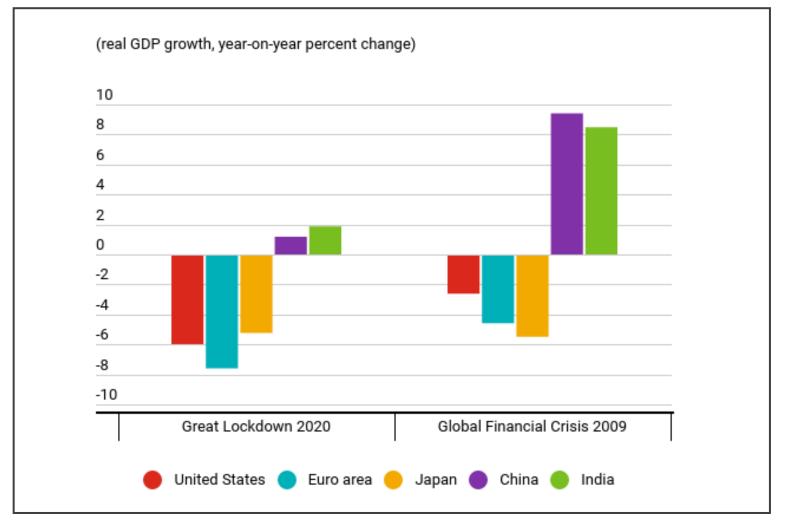
Selected countries, in % of GDP at constant prices

Source: OECD Annual National Accounts; OECD Trade in Value-Added database; Statistics Korea; Brazilian Institute of Geography and Statistics; and OECD calculations. As of 03-26-2020



The Great Lock Down has impacted all World Economies

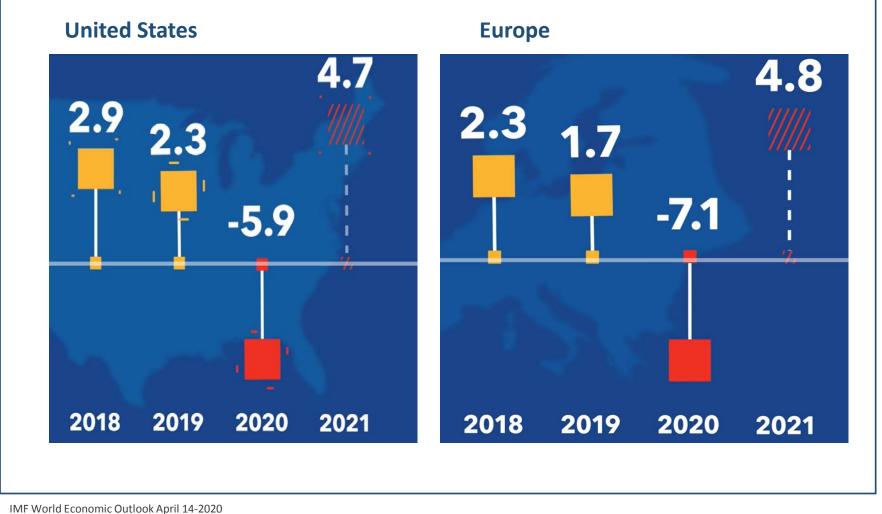
Real GDP Growth Year on Year Percent Change



Source: IMF World Economic Outlook 04-14-2020

Graystone Consulting The Great Lock Down will likely be more severe than the Global Financial Crisis of 2008 according to IMF.

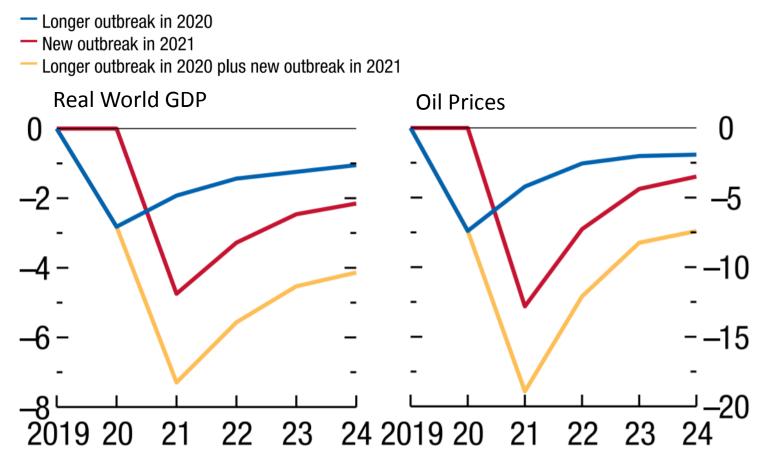
IMF GDP Forecast



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The estimated Downturn in GSP for 2020 may not be fully made up in 2021 according to IMF. _____

IMF Concern: Road to Recovery is Uncertain



'This could be a long, hard road that we have ahead of us until we get to either an effective therapy or a vaccine.' Neel Kashkari - Minneapolis Fed

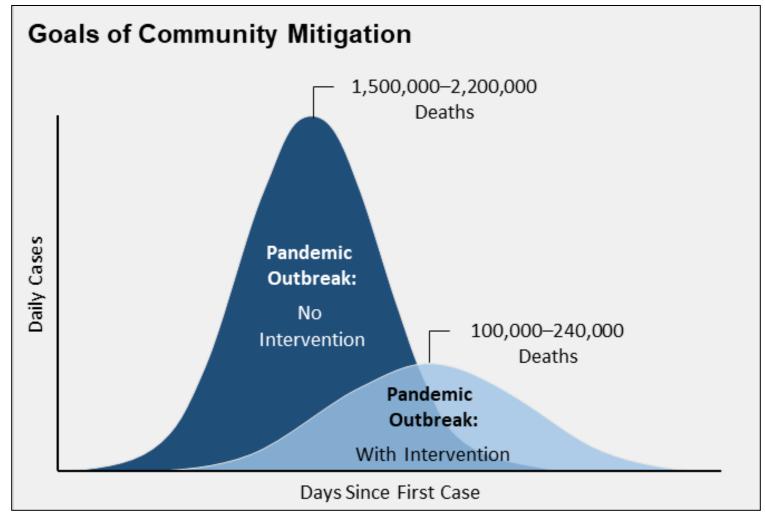
Source: IMF World Economic Outlook 04-14-2020 Neel Kashkari Federal Reserve 4-12-2020

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Risks to recovery include the outbreak lasting longer than expected or a new outbreak in the fall or winter.

Covid-19 Case Curve in Theory



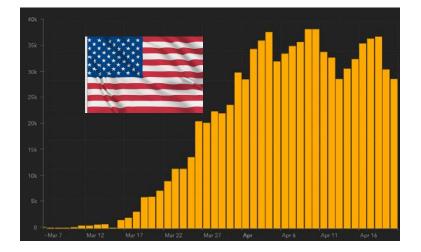
Source: Alliance Bernstein CMO April 2020 Data as of March 31, 2020 Centers for Disease Control and Prevention (CDC), Drew Harris, Johns Hopkins University

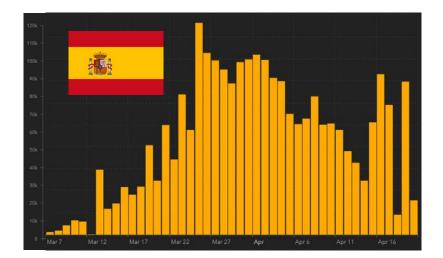


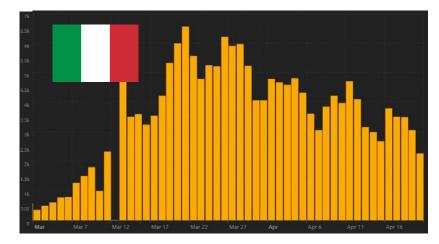
Goals of "Lockdown:" 1. Delay outbreak peak 2. Decompress burden on hospitals 3. Diminish overall cases 4. Decrease fatalities

The Covid-19 Curve

Covid-19 Case Curve in Real Time







Source: Johns Hopkins https://coronavirus.jhu.edu/map.html as of 04-21-2020



Fortunately, the number of new cases appears to have peaked in several developed market economies, preparing the way to recovery.

The Covid-19 Curve

	Reported Cases	Projected Date of Peak Resource Use*	Projected Date of Zero Daily Deaths*
US	374,329	April 15, 2020	June 19, 2020
New York	141,100	April 8, 2020	May 8, 2020
New Jersey	41,090	April 15, 2020	May 12, 2020
Michigan	17,221	April 8, 2020	April 29, 2020
Louisiana	14,867	April 1, 2020	April 24, 2020
California	14,336	April 14, 2020	May 20, 2020
Massachusetts	13,837	April 18, 2020	May 31, 2020
Florida	13,214	April 21, 2020	June 14, 2020
Pennsylvania	12,980	April 11, 2020	May 13, 2020
Illinois	12,262	April 16, 2020	May 6, 2020

Analysis provided for illustrative purposes only and is subject to revision.

Source: Alliance Bernstein CMO April 2020

Graystone Consulting Projections for "return to work" vary by state but may be realized in part by May or June

The Covid-19 Curve

Unprecedented Response

Federal Reserve Action

Two emergency rate cuts by the Fed

Rate cuts of 50 b.p. and 100 b.p. leave rates at the zero bound

Unlimited quantitative easing

Fed's initial pledge to purchase \$700 billion in US Treasuries and agency mortgage-backed securities (MBS) is changed to unlimited amounts—including commercial mortgage-backed securities (CMBS)

Fed's emergency powers to create facilities to expand liquidity*

Primary Dealer Credit Facility (PDCF) Commercial Paper Funding Facility (CPFF) Money Market Mutual Fund Liquidity Facility (MMLF) Primary Market Corporate Credit Facility (PMCCF) Secondary Market Corporate Credit Facility (SMCCF) Term Asset-Backed Securities Loan Facility (TALF) Main Street Lending Facility (MSLF) FIMA Repo Lending Facility

Purchase of Commercial Paper, Muni's, CLOs, CMBS, Corporate Bonds, ETFs, Junk Bonds, ABS: Student Loans, Auto Loans, Credit Cards

Source: Alliance Bernstein CMO April 2020

Graystone Consulting The response to crisis in 2007-2009 took almost 2 years for Fed Intervention. The Covid-19 Crisis took 2 weeks.

Central Bank Action

Congressional Relief

Backstop businesses

\$350 billion in small business loans \$500 billion in corporate aid and loans—administered by US Department of the Treasury \$25 billion in grants for airlines, along with \$25 billion in loans \$17 billion in loans to companies (e.g., Boeing) deemed critical to national security

Backstop incomes

Direct payments of \$1,200 per individual, \$500 per child Tax and interest relief, including from mortgages and student loans

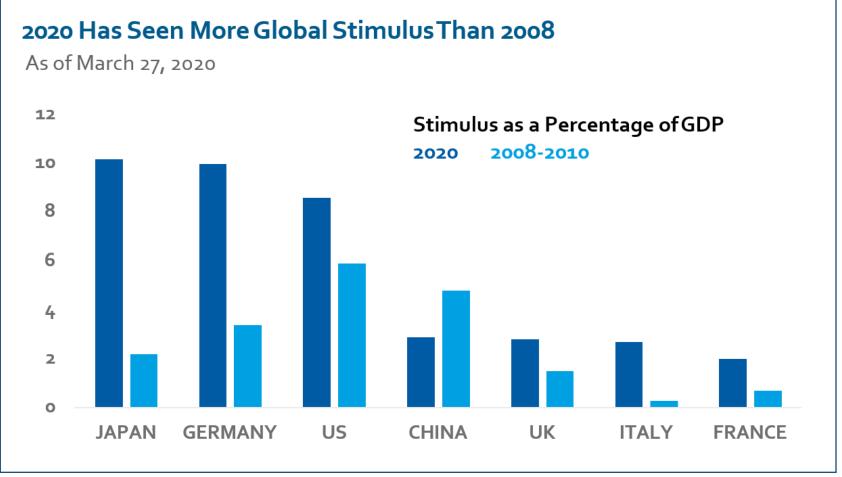
Employees

Paid sick leave (Phase 2) Expanded unemployment insurance (Phases 2 & 3)

Source: Alliance Bernstein CMO April 2020*The Fed has "emergency powers" through Section 13(3) of the Federal Reserve Act. These powers allow the Fed to create programs or facilities to get liquidity into distressed areas of the economy. As of March 31, 2020. Source: Bloomberg, CNBC, US Federal Reserve, *Wall Street Journal* and AB

Graystone Consulting Congress has acted quickly to put money in the hands of consumers and small businesses.

Congressional Action



Source: Morgan Stanley Wealth Management 03-27-2020

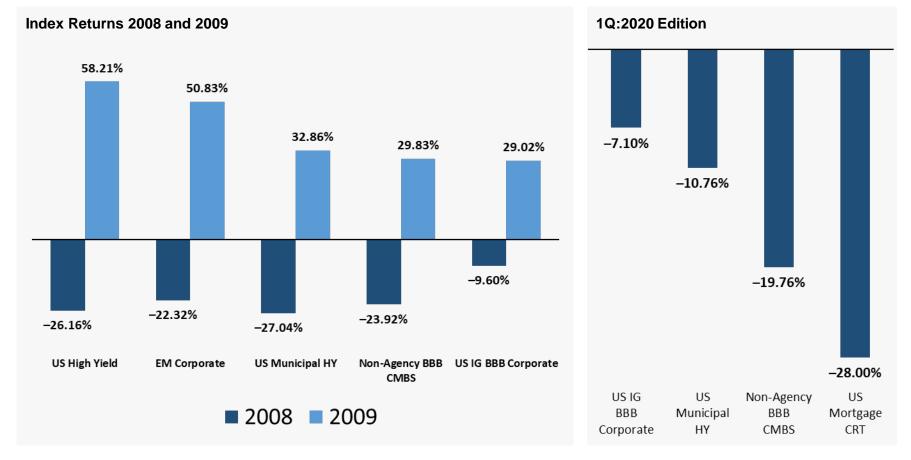


Rapid Central Government response may mitigate the impact of severely tested economies.

Global Government Action

'Beaten Down' Assets may offer Opportunity in Rebound

A Look Back to 2008–2009

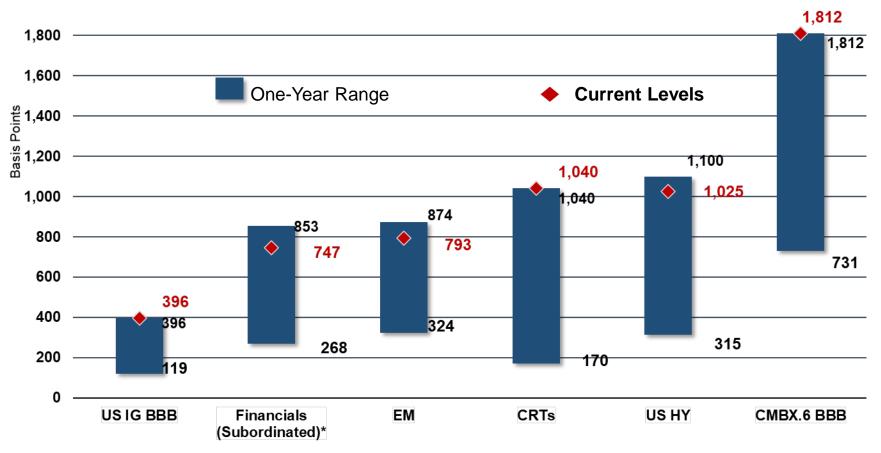


Source: Alliance Bernstein CMO April 2020US high yield (HY) represented by Bloomberg Barclays US High-Yield; emerging-market (EM) corporate by Bloomberg Barclays USD Emerging Markets Corporate; US municipal HY by Bloomberg Barclays Municipal High-Yield; non-agency BBB CMBS by Bloomberg Barclays Non-Agency BBB CMBS; US investment-grade (IG) BBB Corporate by Bloomberg Barclays US Corporate Investment-Grade BBB; CRT 2015 Last Cash Flow/High Loan to Value



'Beaten Down' Assets may offer Opportunity in Rebound

Current Spread vs. Past 12 Months



Source: Alliance Bernstein CMO April 2020 Bloomberg Barclays and ABUS investment grade (IG) represented by Bloomberg Barclays US Corporate Investment-Grade BBB; emerging markets (EM) by Bloomberg Barclays USD Emerging Markets Sovereign; credit risk-transfer (CRT) securities by a representative set of bonds; US high yield (HY) by Bloomberg Barclays US High-Yield. *Subordinated Financials is the Tier 1 component of Bloomberg Barclays Global Capital Securities Index. As of March 25, 2020

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Spreads on most fixed income instruments moved to widest since 2008.

Strategy: Look for 'Beaten Down' Sector at the Recession Trough

Peak To Trough Performance	Total Return (%)		Forward Returns	3-mths	6-mths	12-mths 2	24-mt
Utilities	-1%		Financials	17%	59%	64%	93
Energy	-4%		Consumer Disc.	13%	45%	50%	72
Comm. Services	-8%		Health Care	7%	38%	45%	36
Health Care	-13%	ATT	Consumer Staples	10%	37%	41%	65
Consumer Staples	-14%		Materials	12%	26%	37%	45
5&P 500 INDEX	-19%		5&P 500 INDEX	8%	30%	34%	45
Materials	-23%		Industrials	10%	33%	33%	44
Industrials	-28%		Info Tech	16%	39%	26%	28
Info Tech	-30%	A	Utilities	6%	13%	23%	36
Consumer Disc.	-31%		Energy	-3%	9%	12%	13
Financials	-33%		Comm. Services	o%	7%	8%	24

Sector Performance During 1990

Tables show sectors that perform worst during peak to trough of recessions have tended to have stronger forward-month returns.

Sector Performance During Tech Bubble

Peak to Trough Performance	Total Return (%)	Forward Return	15
Consumer Staples	31%	🚽 Info Tech	
Health Care	-4%	Utilities	
Energy	-14%	Financials	
Materials	-20%	Materials	
Financials	-22%	Consumer Disc.	
Industrials	-36%	Industrials	
Consumer Disc.	-40%	S&P 500 INDEX	
Utilities	-43%	Comm. Services	
5&P 500 INDEX	-47%	Energy	
Comm. Services	-73%	Health Care	
Info Tech	-82%	Consumer Staple	es

Sector Performance During Global Financial Crisis

Peak to Trough Performance Total Return (%) Consumer Staples -29% Health Care -38% Utilities -43% -45% Energy Comm. Services -48% Info Tech -52% 5&P 500 INDEX -55% Consumer Disc. -57% Materials -58% Industrials -64% Financials -82%

Forward Returns 6-mths 3-mths 12-mths Financials 101% 135% Consumer Disc. 69% 53% 72% Industrials 56%

I	Materials	55%	71%	87%	127%
	Info Tech	46%	65%	86%	116%
1	S&P 500 INDEX	40%	55%	72%	103%
	Health Care	17%	33%	48%	57%
	Consumer Staples	22%	31%	46%	64%
	Energy	30%	31%	42%	91%
	Utilities	20%	31%	39%	59%
	Comm. Services	17%	23%	27%	62%

3-mths

42%

36%

27%

24%

14%

19%

20%

43%

9%

8%

2%

6-mths

28%

25%

18%

13%

12%

13%

13%

12%

7%

6%

-6%

12-mths

78%

52%

47%

41%

39%

37%

36%

26%

22%

11%

6%

149%

103%

101%

. . .

24-mths

73%

82%

62%

74%

51%

63%

50%

61%

76%

13%

11%

24-mths

176%

154%

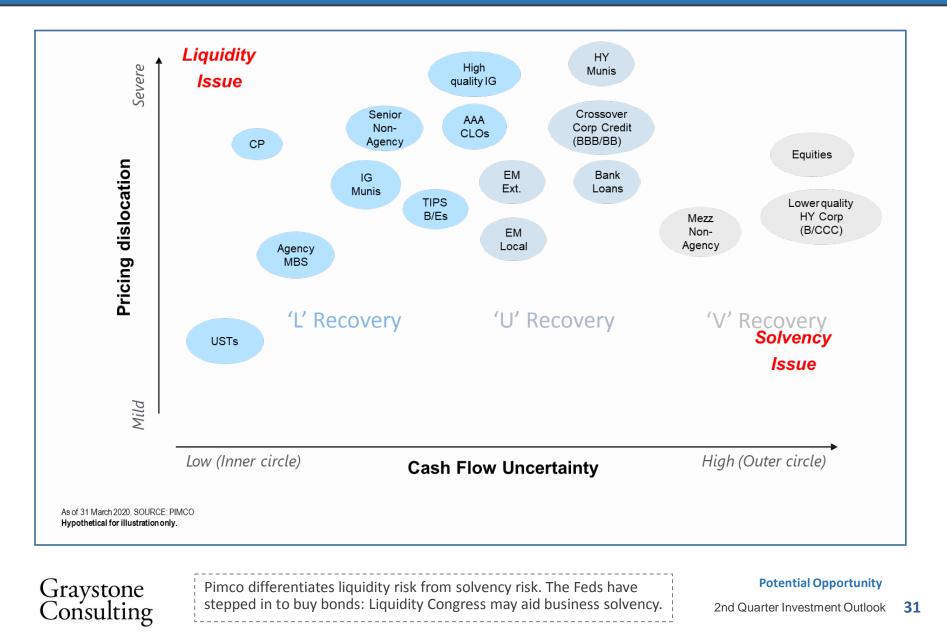
152%

Source:, Morgan Stanley Wealth Management.

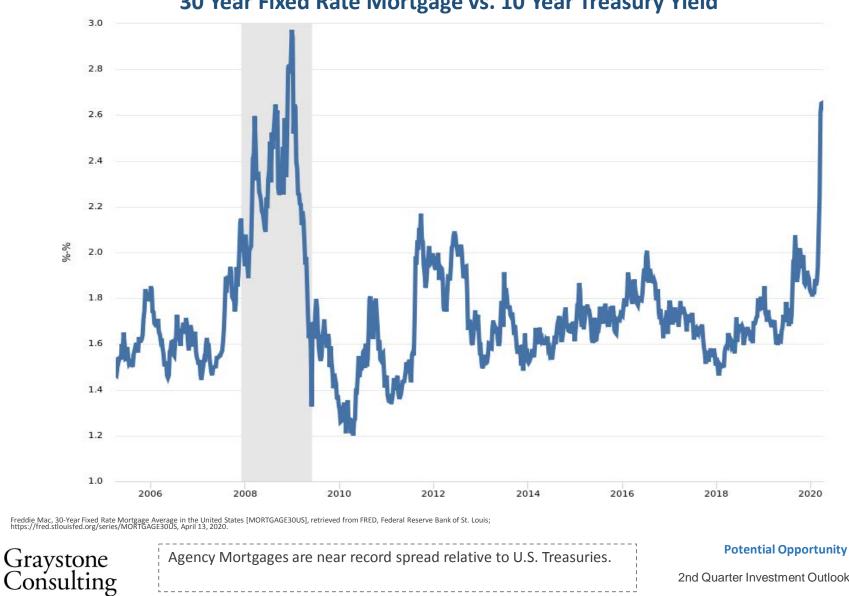


The worst performing sector is often the best performer in a rebound.

Opportunity Set

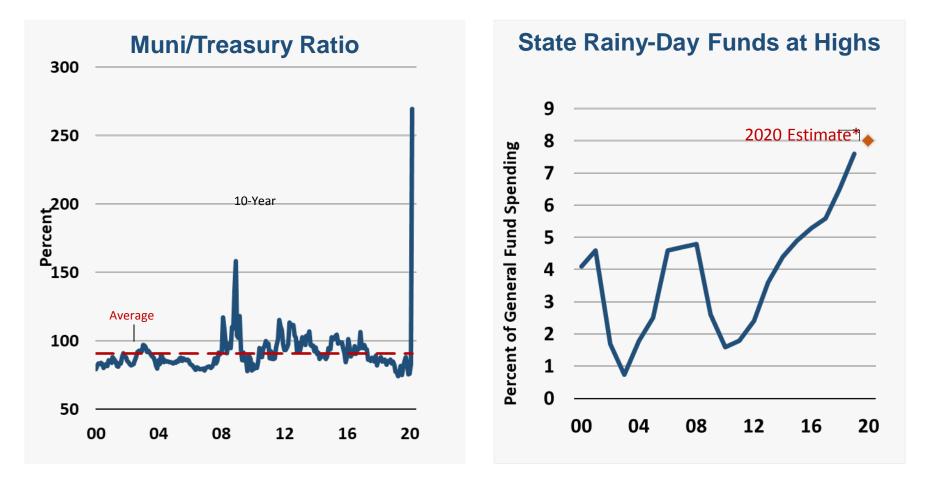


Agency Mortgages



30 Year Fixed Rate Mortgage vs. 10 Year Treasury Yield

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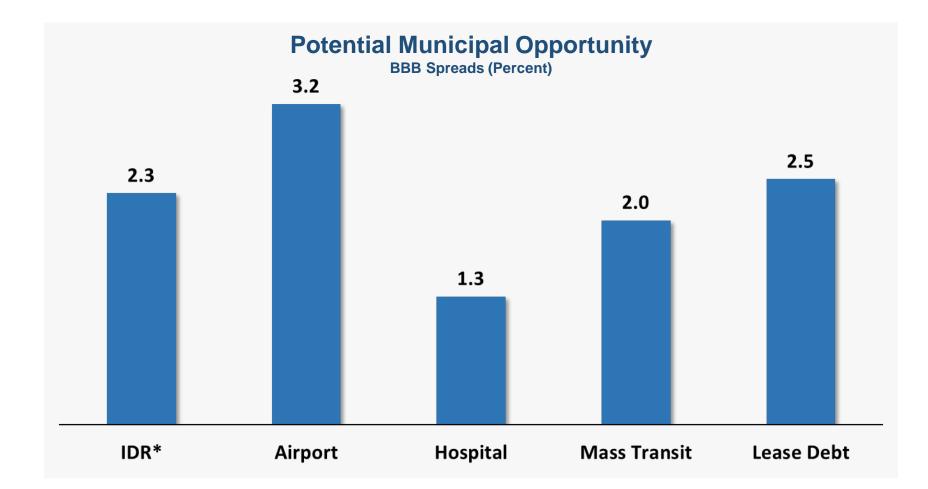
*Source: Alliance Bernstein CMO April 2020 Municipal Market Data, National Association of State Budget Officers Figures for fiscal 2020 are projected based on states' enacted budgets. Data as of March 31, 2020

Graystone Consulting Municipal Bonds, in theory, should yield less than Treasuries due to favorable tax treatment. They may currently offer potential value.

Potential Opportunity

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Municipal Bonds



*Source: Alliance Bernstein CMO April 2020 Credit rating is a measure of the quality and safety of a bond or portfolio, based on an issuer's financial condition. AAA is the highest (best) and D is the lowest (worst). Investment-grade securities are those rated BBB and above. Ratings are subject to change. *Industrial development revenue



Municipal Bonds appear cheap across the spectrum of sectors.

Seniority: Emphasis on senior tranches of very seasoned loans. Even in an economic slowdown, we expect these bonds to be relatively insulated

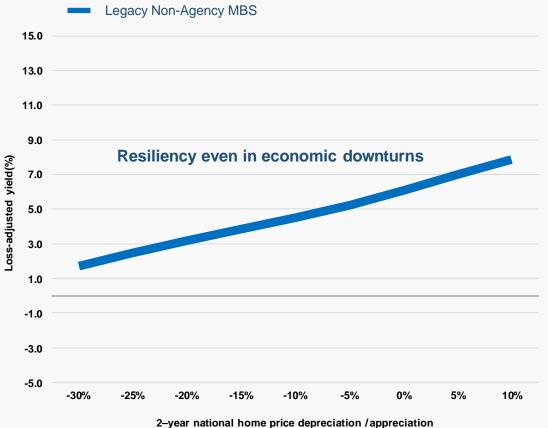
Favorable fundamentals:

Homeowners underlying the bonds have been making payments for over a decade with high levels of equity / low LTVs

Focus on resiliency across a wide range of economic environments

Above is Pimco Commentary

Unlevered loss adjusted yield s in a range of home price scenarios



For illustrative purposes only. Past performance is not a guarantee or a reliable indicator of futureresults. As of 22 March 2020. Source: PIMCO, Bloomberg

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There may be an opportunity in residential mortgage backed bonds.

Forward Returns of Various Asset Classes After HY Spreads Peak

As of March 31, 2020

Average Returns Around HY Spreads Peaking*	Months Before/After HY Spreads Peaked						
Caking	-3 mths	-1 mths	+3 mths	+6 mths	+12 mths	+24 mths	
Barclays Agg HY Index	-14%	-9%	12%	25%	39%	53%	
Bloomberg Barclays Agg IG Index	2%	1%	1%	2%	5%	7%	
S&P 500	-19%	-9%	5%	12%	26%	41%	
Bloomberg Commodity Index	-15%	-9%	5%	8%	18%	23%	

*uses HY peaks in '01/02 recession, GFC, 2011 debt crisis, 2015/16 shale bust

Source: Bloomberg, Morgan Stanley Wealth Management GIC

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized..

Graystone Consulting MS Analysts suggest that High Yield may snap back before equities

If looking for a 'V' Recovery: CMBS

CMBX.6 Updated Base Case Assumptions

- Decline in the net operating income margins that is more severe than that experienced in 2008–2009, for all properties including nonretail
- + 20% reduction in sales
- Reduction in occupancy (rent as a percentage of sales) costs to 10% or lower
- + Decline in occupancy rates to 80% (from low 90s today) for all malls, including those of the highest quality

AB Commentary

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CMBX.6 Yields Extremely High After Adjusting for Losses April 2015–March 2020 (Percent)



Source: Alliance Bernstein Capital Market Outlook April 2020 Data as of March 27

Aggressive investors may find value in deeply distressed commercial mortgage backed bonds.

	3/26/20 Spread	2/28/20 Spread	Spread Dlfference
ABS	C/20/20 Oproduc		Billerenee
2yr Credit Card AAA	210	25	185
3yr Prime Auto AAA	250	40	210
3yr Subprime Auto BBB	700-1000	110	740
Private Student Loan AAA	600	110	490
Senior Consumer Loan	1100	65	1035
Franchise BBB	575-625	220	380
Solar	775-825	220	580
Residential Mortgage Credit			
Jumbo 2.0 - LCF	400	140	260
CRT - M1	750	75	675
CRT - M2	1250	200	1050
CRT - B1	2000+	365	1635+

3/26/20. Source: Bloomberg Barclays and Voya Investment Management.

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Institutional Investors may want to consider the unusually wide spreads in Asset Backed Securities.

If looking for a 'V' Recovery: Stocks

	\$126	\$132	\$138	\$145	\$151	\$157	\$163	\$170	\$176
19	2394	2508	2622	2755	2869	2983	3097	3230	3344
18	2268	2376	2484	2610	2718	2826	2934	3060	3168
17	2142	2244	2346	2465	2567	2669	2771	2890	2992
16	2016	2112	2208	2320	2416	2512	2608	2720	2816
15	1890	1980	2070	2175	2265	2355	2445	2550	2640
14	1764	1848	1932	2030	2114	2198	2282	2380	2464
13	1638	1716	1794	1885	1963	2041	2119	2210	2288
12	1512	1584	1656	1740	1812	1884	1956	2040	2112
11	1386	1452	1518	1595	1661	1727	1793	1870	1936

S&P EPS

Source: Alliance Bernstein CMO April 2020, Standard and Poor's

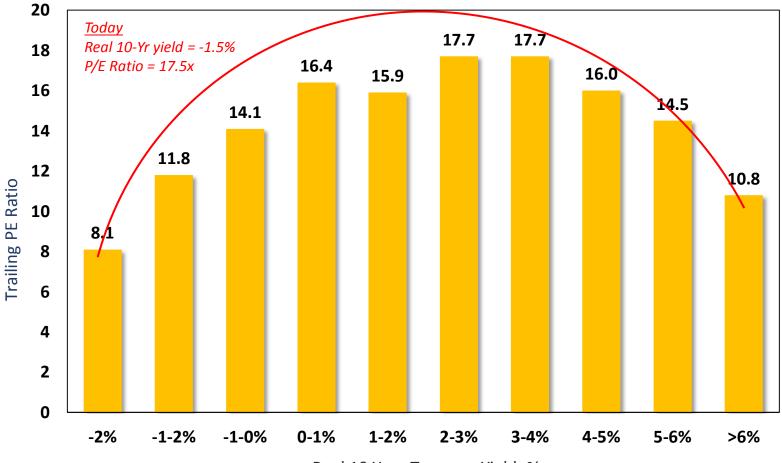


P/E Ratio

Stocks have already reflected the hope of a strong earnings recovery.

What's Fair Value for S&P Earnings?

Median Trailing P/E Under Various Real 10-Year Yield Environments, 1948-Current



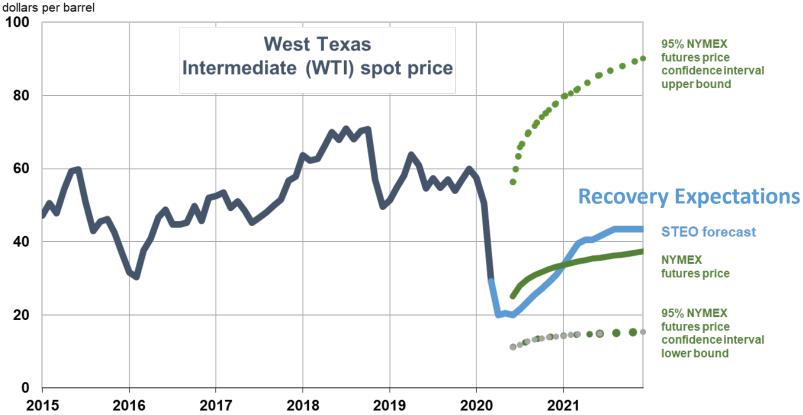
Real 10 Year Treasury Yield, %

Source: KKR kkr.com/global-perspectives/publications/keep-calm-and-carry-on



As KKR notes explain, current real yield is -1.5%. The current trailing PE is higher than PE ratios in previous negative real yield environments.

For a Patient Investor: Energy



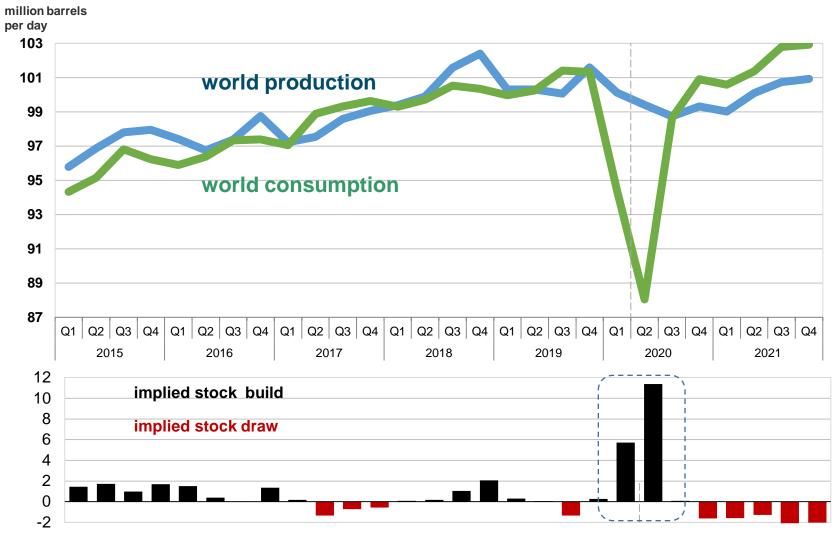
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals

Note: Confidence interval derived from options market information for the five trading days ending Apr 2, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: Short-Term Energy Outlook, April 2020, and CME Group

Graystone Consulting The path to oil recovery is uncertain. The Energy Information Administration believes oil will rebound to low 40s by 2022.

For a Patient Investor: Energy



Source: Short-Term Energy Outlook, April 2020

Graystone Consulting The current glut in oil may come back to equilibrium by increased demand and lower production.

Global Insiders Buying Stock at Highest Rate Since 1999

As of March 17, 2020



Source: Morgan Stanley Wealth Management 03-17-2020



Insiders often have more insight into the future prospects of a company. Consider Money Managers who monitor insider buying.

Appendix: History of Bear Markets since 1929

Peak	Trough	Total Drawdown	Total Bear Market Duration (months)	Time to 20% Bear Market Threshold (Months)	Performance After Initial 20% Downside to Trough	Time to Trough from 20% Threshold (Months)	T+12M Performance After Trough
16-Sep-29	13-Nov-29	-45%	1.9	1.4	-22%	0.5	-6%
10-Apr-30	16-Dec-30	-44%	8.3	2.2	-30%	6.1	-45%
24-Feb-31	2-Jun-31	-33%	3.3	2.1	-15%	1.1	-62%
26-Jun-31	5-Oct-31	-43%	3.4	2.7	-27%	0.7	-16%
9-Nov-31	1-Jun-32	-62%	6.8	o.8	-51%	6.1	121%
7-Sep-32	27-Feb-33	-41%	5.8	0.2	-25%	5.5	95%
18-Jul-33	19-Oct-33	-29%	3.1	0.1	-11%	3.0	5%
6-Feb-34	14-Mar-35	-32%	13.4	3.8	-14%	9.5	77%
10-Mar-37	31-Mar-38	-54%	12.9	6.0	-42%	6.8	29%
9-Nov-38	11-Apr-39	-24%	5.1	4.7	-5%	0.4	19%
25-Oct-39	10-Jun-40	-32%	7.6	6.7	-13%	0.9	9%
7-Nov-40	28-Apr-42	-34%	17.9	13.0	-18%	4.9	54%
29-May-46	19-May-47	-28%	11.8	3.4	-8%	8.4	19%
15-Jun-48	13-Jun-49	-21%	12.1	12.1	٥%	0.0	42%
2-Aug-56	22-Oct-57	-22%	14.9	14.8	٥%	0.0	31%
12-Dec-61	26-Jun-62	-28%	6.5	5.6	-6%	1.0	33%
9-Feb-66	7-Oct-66	-22%	8.0	6.7	-2%	1.3	33%
29-Nov-68	26-May-70	-36%	18.1	14.2	-19%	3.9	44%
11-Jan-73	3-Oct-74	-48%	21.0	10.7	-35%	10.3	38%
28-Nov-80	12-Aug-82	-27%	20.7	15.0	-8%	5.7	58%
25-Aug-87	4-Dec-87	-34%	3.4	1.8	٥%	1.5	21%
24-Mar-oo	21-Sep-01	-37%	18.2	11.8	-18%	6.4	-12%
4-Jan-o2	9-Oct-02	-34%	9.3	6.2	-16%	3.0	34%
9-Oct-07	20-Nov-08	-52%	13.6	9.1	-40%	4.5	45%
6-Jan-o9	9-Mar-o9	-28%	2.1	1.6	-9%	0.5	69%
	Average	-36%	10	6.3	-17%	3.7	29%
	Median	-34%	8	5.6	-15%	3.0	33%

Source: Bloomberg, Morgan Stanley Wealth Management. Note: Grey shades represent recession within 12 months from Peak S&P 500 date based on Bloomberg Recession Index price returns.

Brawdown is the peak-to-trough decline during a specific period. Data as of March 31, 2020 Graystone Consulting

Grey bars indicate periods of recession

Important Information

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Investing in commodities entails significant risks. Commodity prices ay be affected by a variety of factors at any time, including but not limited to, (i)changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities I commodities and related contracts, (vi) pestilence, technological change an weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

As further described in the offering documents, an investment in alternative investments can be highly illiquid, are speculative and not suitable for all investors. Investing in alternative investments is only intended for experienced and sophisticated investors who are willing to bear the high economic risks associated with such an investment. Investors should carefully review and consider potential risks before investing. Certain of these risks may include: loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; lack of liquidity in that there may be no secondary market for the fund and none is expected to develop; volatility of returns; restrictions on transferring interests in the Fund; potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; absence of information regarding valuations and pricing; complex tax structures and delays in tax reporting; less regulation and higher fees than mutual funds; and manager risk.

Individual funds will have specific risks related to their investment programs that will vary from fund to fund.

REITs are subject to special risk considerations similar to those associated with the direct ownership of real estate. Real estate valuations may be subject to factors such as changing general and local economic, financial, competitive, and environmental conditions. REITs may not be suitable for every investor. Dividend income from REITs will generally not be treated as qualified dividend income and therefore will not be eligible for reduced rates of taxation.

Interest in municipal bonds is generally exempt from federal income tax. However, some bonds may be subject to the alternative minimum tax (AMT). Typically, state taxexemption applies if securities are issued within one's state of residence and, local tax-exemption typically applies if securities are issued within one's city of residence.

International investing may not be suitable for every investor and is subject to additional risks, including currency fluctuations, political factors, withholding, lack of liquidity, the absence of adequate financial information, and exchange control restrictions impacting foreign issuers. These risks may be magnified in emerging markets.

S&P 500 Index is an unmanaged, market value-weighted index of 500 stocks generally representative of the broad stock market. An investment cannot be made directly in a market index.

Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. An investment cannot be made directly in a market index. Investing in smaller companies involves greater risks than those associated with investing in more established companies, including significant stock price fluctuations and illiquidity.

The Barclays Capital U.S. Aggregate Index covers the U.S. Dollar-denominated, investment-grade, fixed-rate, taxable bond market segment of SEC-registered securities. The inde3x includes bonds from the U.S. Treasury, Government-Related Corporate, Mortgage-Backed, Asset-Backed, and Commercial Mortgage-Backed Securities sectors. An investment cannot be made directly in a market index. Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer any choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made. NOTE: High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

Barclays Capital U.S. Credit Bond Index is composed of all publicly issued, fixed-rate, non-convertible, investment-grade, domestic corporate debt (collateralized mortgage obligations are not included). Total return comprises price appreciation/deprecation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization. An investment cannot be made directly in a market index.

Important Information, continued

Barclays Capital Municipal Bond Index is a broad measure of the municipal bond market with maturities of at least one year. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. An investment cannot be made directly in a market index.

The MSCI EAFE© Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. As of May 2005 the MSCI EAFE Index consisted of the following 21 developed market county indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom. An investment cannot be made directly in a market index.

The MSCI World Index is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of 23 developed-country markets. An investment cannot be made directly in a market index.

HFR Indices are compiled by Hedge Fund Research, Inc. ("HFR"), an industry service provider. They are based on the performance of hedge funds in various strategies as reported by the hedge fund managers to HFR. While the HFRI Indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. All data is net of all fees, denominated in U.S. dollar and equal-weighted. The information underlying the indices and the classification of the underlying funds have not been independently verified by either HFR or Morgan Stanley Smith Barney, and neither HFR nor Morgan Stanley Smith Barney make any representation as to their accuracy. Past performance does not guarantee future results. Real results may vary.

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