



Global Investment Committee | April 2020

On the Markets

Bear Markets End With Recessions

In the past month, we've experienced a full *bear* market, down 20%, and a full *bull* market, up 20%. Of course, this extreme volatility follows a period of extreme calm, during which we observed some of the lowest volatility readings in history.

As noted by famed economist Hyman Minsky, the onset of a market collapse can be brought on by the speculative activity that defines an unsustainable bullish period—what's known as the "Minsky Moment." Give that 2019's fourth quarter market looked like a speculative frenzy driven by liquidity rather than fundamentals, the Minsky Moment conclusion is not only compelling, but hard to refute.

That's the bad news. The good news is that crises lead to bailouts. In fact, given the nature of this crisis is health related, the response has been extreme. Without a face to blame and the common enemy being a virus that everyone wants to defeat, there are literally no governors on the amount of monetary or fiscal stimulus that will be used in this fight. As an example, our economists now estimate a US fiscal deficit of 13%, a level last seen during World War II. While the fight against the virus is a war, the money being thrown at this enemy may, in the end, be excessive. As a result, the inevitable credit crunch that occurs with any recession could be truncated.

Recessions don't appear out of nowhere. No matter what the exogenous shock is that ends an expansion, the conditions for a recession must be in place for that trigger to actually work. More specifically, every expansion leads to excessive credit creation. This time around it was in corporate credit and shadow banks—unregulated financial intermediaries. A recession usually brings the most pain to these areas of excessive credit and leverage. However, given the extreme response we are now getting from the Federal Reserve and Congress to fight the virus, we envision less pain than normal for the bad actors of the last cycle. This is why we have been getting more bullish the past few weeks even though the economic and earnings data are sure to get worse.

To summarize, with forced liquidation of assets in the past month, unprecedented monetary and fiscal support, and the most attractive valuation we have seen since 2011, we stick to our view that the worst is behind us for this bear market that really began two years ago, not last month. Therefore, recent levels in equity and credit markets will prove to be good entry points on a six-to-12 month horizon. Recessions are where bear markets *end*, not where they begin—making the risk-reward more attractive today than it's been in years. ■

Michael Wilson

Chief Investment Officer
Chief US Equity Strategist
Morgan Stanley & Co. LLC

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ECONOMICS

Deeper Recession, but Not Depression

Chetan Ahya, Chief Economist and Global Head of Economics, Morgan Stanley & Co.

Further deterioration in the COVID-19 outbreak is severely damaging the global economy. We expect global growth to dip close to the lows of the financial crisis and US growth to see a 74-year low this year. Assuming new confirmed cases peak in April/May, and with an aggressive monetary and fiscal policy response in the pipeline, we expect growth to start recovering starting in the third quarter. The key risk is that the disruption continues beyond the second quarter.

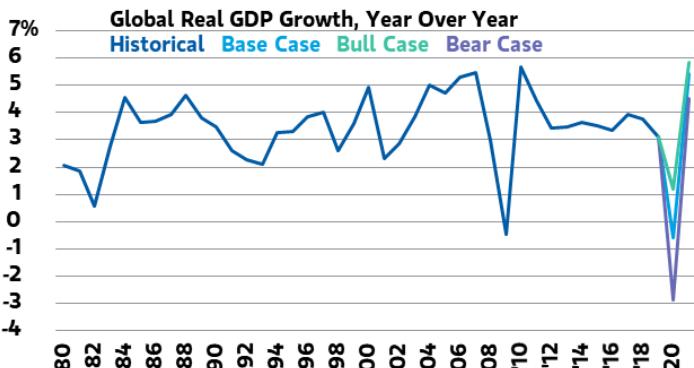
During the past few weeks, the situation in Italy, broader Europe and the US has worsened significantly. As most governments and private sector companies in these economies are initiating more stringent social distancing measures to contain the spread of the virus, the economic damage will be severe.

CONTRACTING GROWTH. In our view, global growth will be closer to levels hit in the financial crisis, and US growth the lowest since 1946 (see charts). Ellen Zentner, MS & Co.'s chief US economist, has cut her growth forecasts again, taking her 2020 GDP estimate to -3.0% from 0.6% previously. For the second quarter, US growth is now expected to contract at a 30.1% quarter-over-quarter seasonally adjusted annualized rate—a 74-year low. In 1946, US growth fell 11.1% for the year. The last time we saw a steeper decline in peacetime was 1938, when premature and aggressive policy tightening brought a double dip in the economy and a relapse into recession and deflation.

With the expected drop in US GDP growth, global growth falls to -0.6% in 2020, taking it past the 2009 low of -0.5%. We see the bulk of the pain concentrated in the first half of 2020, with growth contracting by 1.0% and 3.5% annualized rates in the first and second quarters, respectively.

CORONAVIRUS' PATH. In our view, the pace of economic recovery depends on COVID-19's path. In our base case estimates, we assume the virus peaks by April/May, and growth begins to recover from the third quarter. However, if the peak comes later and virus-related economic disruption continues into the summer, we expect global and US growth to contract by 2.9% and 8.8% annualized rates, respectively, for the year in 2020. In that scenario, global growth would be lower than it was in the financial crisis, and US growth would be down to the levels seen during the Great Depression in the early 1930s.

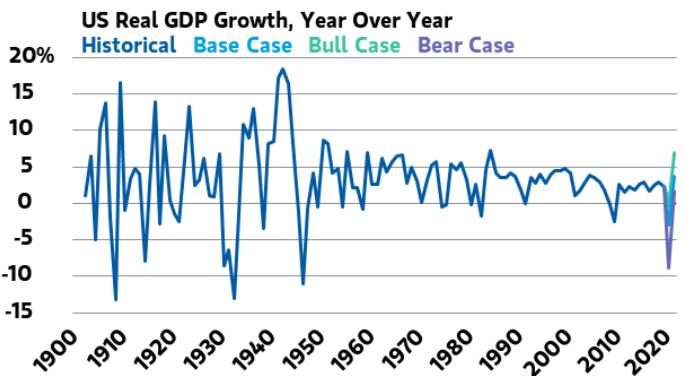
MS & Co. Forecasts Global Recession in 2020



Note: Our bull, base and bear case forecasts are primarily anchored around the impact of COVID-19. Global real GDP includes economies under Morgan Stanley Research coverage and the growth rate is the PPP-based GDP-weighted average.

Source: Haver Analytics, IMF, Morgan Stanley Research as of March 23, 2020

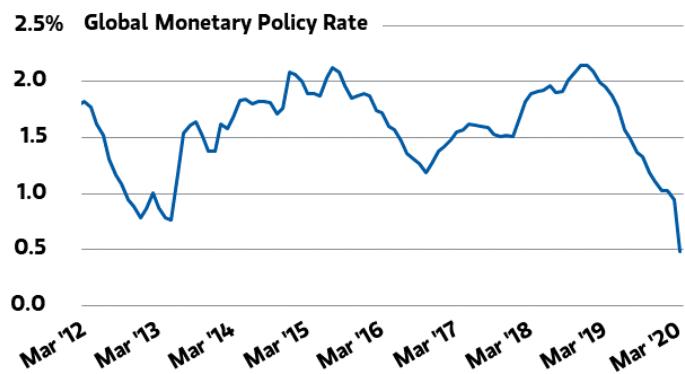
In MS & Co.'s Base Case, US Recession Is No Worse Than the 2009 Downturn



Source: Haver Analytics, BEA, the Historical Statistics of the United States, Morgan Stanley Research as of March 23, 2020

The pandemic brings structural macroeconomic issues back into focus. As we have highlighted for some time, since the financial crisis, the global economy has been facing the challenge of demographics, debt and disinflation that we previously faced in the 1930s. From a big-picture perspective, the COVID-19 growth shock brings these structural issues to the fore again. In the 1930s, the economic shock resulted in relatively high levels of private sector indebtedness. In the immediate aftermath, companies turned risk-averse and shifted their attention to restoring balance sheet health, which produced a sharp drop in private demand. To make matters worse, during the early 1930s, policymakers pursued tighter macro policies in the first three years after the shock.

Global Monetary Policy Rate Now the Lowest Since the Financial Crisis



Global monetary policy rates are PPP-weighted average for economies under Morgan Stanley coverage.

Source: Haver Analytics, IMF, national sources, Morgan Stanley Research as of March 23, 2020

AGGRESSIVE POLICY RESPONSE. The good news is that, unlike in 1929-1933, we are already seeing an aggressive policy response. Back then, strict adherence to the gold standard further exacerbated the deflationary tendencies. The Federal Reserve also maintained a hawkish monetary policy stance for an extended period, exemplified by its allowing the money supply to contract by one-third between 1929 and 1933. This reinforced deflationary pressures, leading to four consecutive years of deflation in the US. The sharp drop in demand and intense deflationary pressures extended to Europe, with the key economies of the UK, Germany and France experiencing deflation during the same four-year period. In contrast, the response to the current economic shock has been extremely aggressive. With the experience of the 2008 financial crisis still fresh in policymakers' minds, policy actions during the past few weeks have been vigorous, especially in the G4 and China.

Since mid-January, 22 of the 30 central banks we cover have eased monetary policy. The global-weighted average policy rate has declined below the lows seen since the financial crisis, and they are down 54 basis points since December 2019 and 166 basis points since December 2018 (see chart). When the Bank of England relaunches its Quantitative Easing (QE) program, we will have all G4 central banks back on the QE path. By the end of the second quarter, we expect 25 central banks to be easing, implying better monetary support than we saw in the aftermath of the financial crisis.

FISCAL RESPONSE. Fiscal easing in the G4+China economies will exceed levels seen in the financial crisis. While the initial response from developed economies was slow, with economic and financial market disruptions persisting, we have started to see strong commitments from policymakers, indicating that a sizeable fiscal expansion plan is in the offing.

We now expect that, in the G4+China, the combined primary fiscal balance will rise by 440 basis points, or about \$2.8 trillion. As a percentage of GDP, the G4+China cyclically adjusted primary deficit will rise, reaching 8.5% of GDP in 2020—higher than the post-crisis low of 6.5% in 2009. In the US alone, we expect the cyclically adjusted primary fiscal deficit to rise to 13% of GDP in 2020 (assuming a stimulus of \$2 trillion) compared with 7% of GDP in 2009.

Here's the bottom line. Matthew Harrison, MS & Co.'s US biotech analyst, expects new confirmed COVID-19 cases to peak in April or May in his base case. Based on this outlook, we expect the global economy to contract by a 1.4% annualized rate in the first half, which will approach financial crisis lows. However, with aggressive monetary and fiscal policy response in the pipeline, we expect growth to start recovering from the third quarter on as the coronavirus impact fades. The key risk to this outlook is that disruptions related to COVID-19 extend beyond the second quarter. In that scenario, global growth could see an even deeper recession, with 2020 growth averaging -2.1%. ■

MARKETS

What's Driving Equities' Downturn?

Zachary Apoian, Investment Strategist, Morgan Stanley Wealth Management
Nick Lentini, Associate, Morgan Stanley Wealth Management

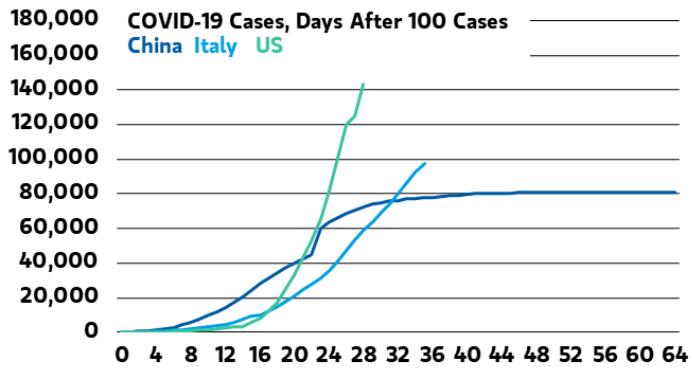
Difficult markets normally occur with certain sets of fears, with loss of wealth, job security or downturn in a personal business all par for the course. Since Feb. 19, however, not only have stocks been besieged by a loss of as much as of 34% of their value with record speed. At the same time, people across the world have faced unprecedented disruptions to their lives and often livelihoods in a coordinated attempt to fight a global pandemic.

A public health crisis alongside a market crisis compounds

their worries. And while we should all take due precautions to protect the well-being of ourselves and our loved ones, we would caution against a knee-jerk reaction with your investment portfolio. The impact on markets has been severe, but the sell-off also priced a degree of economic damage that may well surpass what comes to pass.

In the following sections, we illustrate the stresses driving this downturn, as well as the opportunities that remain in the markets today. We believe that, despite the current uncertainties, foundations of an eventual recovery are in place. As has been the case in prior market downturns, we believe investors who can hold through these declines may be rewarded with above-average returns. Through these distracting times, it pays to stay focused on your long-term goals and not the day's fearful headlines. ■

Growth Rate of New COVID-19 Cases May Show Path to Recovery

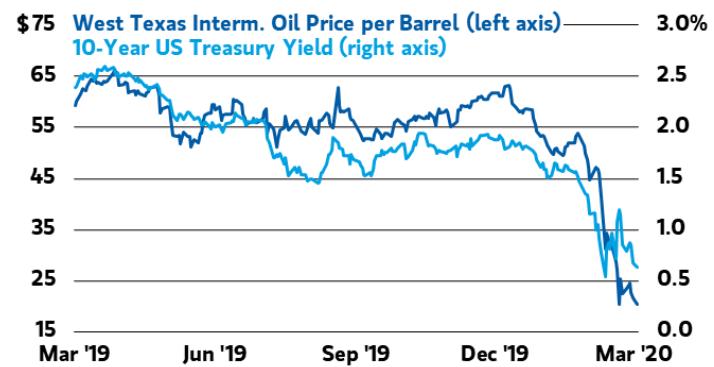


Source: Bloomberg as of March 29, 2020

The COVID-19 pandemic has brought about an abrupt, colossal interruption to life as we knew it only weeks ago. Governments across the world have taken steps to “flatten the curve”—slow the transmission of the coronavirus—through mass isolation, seeking to avoid contact between those who are not infected and those who may infect. This will likely result in a recession. Still, we see containment as key to recovery. China, having instituted strict controls following its initial string of infections, has started to see the pace of new cases decelerate (see chart). Similar evidence of effectiveness in other areas of impact may provide markets a road to recovery by showing a feasible path to reopening businesses and a resumption of normal life.

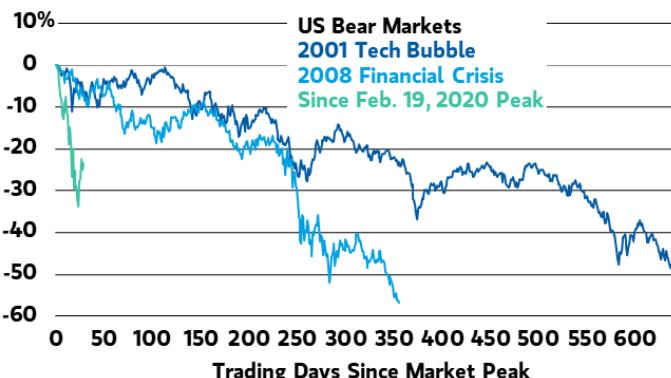
Falling Oil Prices Also Fueled Stock Market Sell-Off

As the severity of the outbreak was becoming apparent, a shock to oil markets put additional stress to already reeling financial markets. In early March, OPEC+ oil producers failed to reach agreement on production levels, sparking a price war (see page 8). Saudi Arabia, the world's low-cost producer, spiked production in an effort to drive prices to unsustainably low levels for rival countries. Atop falling demand from virus-related shutdowns, West Texas Intermediate oil tumbled to \$31 per barrel from \$46 in two days—and has since fallen to \$22 (see chart). Prices this low pressures all but the most efficient producers, posing potential danger to the broad energy industry and several already fragile economies that depend on oil exports. US Treasury yields fell in lockstep with oil, consistent with these potential stresses and lower growth ahead.



Source: Bloomberg as of March 27, 2020

A Fast and Furious Bear Market With the Steepest Decline in History

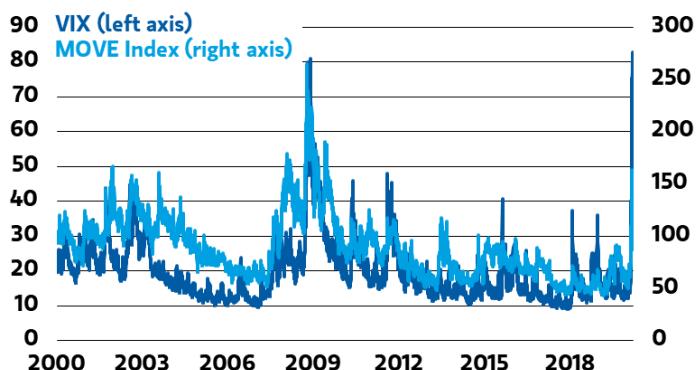


Source: Bloomberg as of March 27, 2020

Reaching a 34% drawdown in 23 days, this bear market has had the steepest decline in history. As prices fell sharply, market participants seeking to lower their risk sold at a rate that outpaced available liquidity, exacerbating the market's unwinding. Compared with bear markets linked to the tech bubble in 2001 and the financial crisis in 2008, the drawdown occurred nearly 10 times faster (see chart). This time, policy response has been swift. Among other things, the Federal Reserve cut rates to near 0% to spur investment and assured liquidity to stressed pockets of the financial markets. Congress also passed a \$2 trillion fiscal stimulus bill with both consumer and business support. Policy doesn't affect stocks directly, but assuring liquidity to other markets does and cash injections for the economy does.

Volatility Peaks Usually Precede Market Troughs

Market volatility has spiked drastically in the past six weeks. This is clear from equity market headlines, but less obvious is the similar action in the bond market. Both markets have benchmarks that track traders' expectations of volatility over the next month: the VIX for stocks, and the MOVE Index for bonds (see chart). While the rapid decline in stocks powered equity volatility, fixed income volatility has risen proportionately higher due to the precarious footing of corporate debt repayments. We believe that before markets can stabilize, they need to digest the current volatility from its current decade-high levels. We also see bottoming as a process: Looking at examples from the 2009-2011 financial crisis recovery, volatility peaked months before markets reached their final trough. Although the VIX and MOVE peaked last month, and though we remain constructive over the long-term, markets may still retest new lows or create new volatility highs in the coming months.



Source: Bloomberg as March 27, 2020

Fallout of Stock Sell-Off: Lowest Valuations in Nearly Six Years



Source: Bloomberg as of March 27, 2020

valuations presents an opportunity for investors to benefit from the lowest valuations in nearly six years.

Based on the forward price/earnings (P/E) ratio, or overall company value as a multiple of next year's projected earnings, US stocks were more expensive at the start of the year than they have been over 90% of their history. Now, they are attractively priced, with current valuations below their historical average (see chart). These lower P/Es reflect the uncertainty in earnings from the impact of COVID-19 on supply chains and business profits. Just as the virus has spread at different paces in different regions, the economic recovery is also likely to be regionally distinct given differing levels of policy stimulus and public health measures. This underscores the importance of maintaining a globally diversified portfolio. For long-term investors who are able to remain invested through today's uncertainties, we believe the reset in global

MARKETS

When Stocks Yield More Than Bonds

Doug Moglia, Associate, Morgan Stanley Wealth Management

This past month, a global pandemic coupled with an oil price shock created disruptions that have led investors to flee into traditional safe-haven assets. As a result, the 10-year US Treasury yield has fallen over 100 basis points for the year to date, reaching 0.31% intraday on March 9, an all-time low. With that in mind, we decided, using the S&P 500 Index as a proxy for US equities, to consider the relationship between the market's dividend yield and 10-year Treasury yields.

DIVIDEND HISTORY. From the 1930s through the 1950s, dividend yields routinely exceeded the 10-year Treasury, a structural artifact of the Great Depression. Between 1961 and 2008, there was no period in which the dividend yield exceeded the 10-year bond yield. However, since November 2008, the stocks' yield has exceeded the 10-year bond yield approximately one-third of the time; distinct periods were in 2008-2009, 2011, 2012-2013, 2015, 2016 and 2019.

This year, the S&P 500 yield crossed over the 10-year Treasury rate in early January, and in recent weeks it has quickly gone to extremes. Currently, the spread between the two yields is 1.78%—its highest level ever on a weekly basis. What's more, the yield on the S&P 500 has crossed over the 30-year US Treasury rate for only the third time in history.

EQUITY RISK PREMIUM. What does it mean when stocks yield more than bonds? Conceptually, as risk-free rates move lower, the equity risk premium widens. (The equity risk premium is the earnings yield minus the 10-year government rate.) All else equal, as rates decline, equities become more attractive. One manifestation of this is stocks yielding more than bonds. The equity risk premium of the S&P 500 is now more than 600 basis points, the highest since 2012, which underscores this potential opportunity of owning stocks versus bonds. The main stipulation, however, is that earnings estimates will come down in coming months due to an expected recession, and that will reduce the earnings yield input in the equity risk premium. Still, even with an earnings markdown, we believe that an equity risk premium that remains above 400 basis points offers a relatively attractive risk/reward for equity ownership.

STRONG RETURNS. Furthermore, how does performance of stocks and bonds tend to move historically following the yield crossover? In the table to the right, we summarize historical performance following similar periods of relatively elevated stock yields when compared with the 10-year US Treasury. To tune out some of the noise, we observed periods in which there was a "deep discount" in S&P dividends versus Treasury yields, defined as instances in which the dividend yield moved at least 0.25% above Treasuries.

As a result of this analysis, there have been six such observations since 2008 (see table). The returns following these periods were strong, with 11% and 22% average gains for the S&P 500 in the ensuing six and 12 months, respectively. Dividend-oriented strategies were particularly robust. To wit, the S&P Dividend Aristocrats Index has had an average 25% 12-month forward return following our six observations; on the other hand, long-term Treasuries tended to sell off in these periods. While this suggests stocks are attractive relative to bonds at current levels, there are two caveats. First, these returns occurred in one cycle in what was, until last month, a roaring bull market. This analysis suggests that age-old adage of buying the dips has worked this cycle. Second, while conceptually we agree that higher yields in stocks should make them relatively more attractive, in foreign developed markets, equity yields have generally been higher than government bond yields, and we have not seen the same performance. For now, at least, it's a US equity market phenomenon. ■

Strong Forward Returns When Dividend Yield Initially Breaches 0.25% or More Above 10-Year Treasury Yield

Observation Date	S&P 500 Index (%)					
	T-6	T-3	T+3	T+6	T+12	T+24
Nov. 21, 2008	-42.5	-37.4	-3.7	11.0	36.4	50.0
Sept. 9, 2011	-12.6	-10.5	8.7	18.8	24.6	44.8
May 18, 2012	6.5	-4.8	9.5	5.0	28.7	45.0
Jan. 30, 2015	1.3	0.0	4.5	5.7	-2.7	14.3
Jan. 15, 2016	-10.8	-7.1	10.7	15.0	21.0	48.2
Aug. 16, 2019	4.1	0.4	8.0	17.0	-	-
Median Return	-10.8	-7.1	8.7	11.0	24.6	45.0
Observation Date	S&P Dividend Aristocrats Index (%)					
	T-6	T-3	T+3	T+6	T+12	T+24
Nov. 21, 2008	-29.5	-25.8	-6.5	10.2	40.3	62.1
Sept. 9, 2011	-6.8	-7.7	10.9	18.6	28.2	57.1
May 18, 2012	8.1	-2.1	9.3	9.0	35.7	53.4
Jan. 30, 2015	7.6	2.4	2.7	4.8	1.6	17.4
Jan. 15, 2016	-7.2	-4.7	15.6	22.6	20.2	49.1
Aug. 16, 2019	4.3	2.3	9.3	12.9	-	-
Median Return	-6.8	-4.7	9.3	10.2	28.2	53.4
Observation Date	ICE US Treasury 20+ Yr. Index (%)					
	T-6	T-3	T+3	T+6	T+12	T+24
Nov. 21, 2008	14.2	11.9	2.0	-6.5	-4.1	1.3
Sept. 9, 2011	28.3	19.2	3.7	3.3	12.4	-3.6
May 18, 2012	6.0	7.8	-1.5	3.2	-3.3	-3.2
Jan. 30, 2015	22.5	15.9	-8.0	-10.7	-5.5	-8.9
Jan. 15, 2016	8.3	1.9	5.6	11.6	-0.8	4.4
Aug. 16, 2019	21.6	17.2	-5.4	-0.1	-	-
Median Return	14.2	11.9	2.0	3.2	-3.3	-3.2

Note: T-3/T+6 represent months before/after the S&P 500 dividend yield is above the 10-year US Treasury yield.

Source: Morgan Stanley Wealth Management Market Strategy, Bloomberg as of Feb. 29, 2020

EQUITIES

Dividends May Be Attractive, but Approach Them With Caution

Sachin Manchanda, Investment Strategist, Morgan Stanley Wealth Management

The COVID-19 pandemic and oil market collapse due to Russia-Saudi conflict led to a broad stock market sell-off with the worst March on record. Since the price decline, the S&P 500's dividend yield has risen to a historic high of 2.5%, 22% higher than it's the average of the past 10 years. Looking out internationally, the dividend yield on the MSCI All Country World Index ex US is even higher at 3.9%, 28% above its 10-year average. When compared with the 0.8% yield on the 10-year US Treasury, these yields appear attractive for income-seeking investors. However, we recommend caution and selectivity.

To start with, the pandemic and resultant lockdowns are likely to have significant impacts on GDP and earnings per share, so we expect a number of companies may cut dividends to preserve cash. In fact, we are already seeing some noted high-quality companies that have a long and unbroken track record of dividends announcing dividend reductions. Thus, we favor higher-quality companies in industries where we see higher probability of dividend sustainability and avoid stocks in industries where a sharp drop in economic activity and corporate profitability as well as regulations, may lead to dividend cuts. To ascertain dividend sustainability, we analyze the quality of the business, balance sheet strength, management actions, capital allocation policies and cash flow generation. Below, we note where to find companies with above characteristics.

Pharmaceuticals. While the future course and duration of the COVID-19 outbreak are unknown, we see pharmaceutical companies a relative safe haven. These companies do face some short-term risks, including social distancing and provider disruption impact on patient visits, clinical trials and new product uptake. However, over the longer term we are more constructive. Some major drug companies with strong balance sheets yield 3% or more. In addition, they trade at depressed valuations, with relative price/earnings ratio versus the S&P 500 at a 15% or greater discount to their 20-year average. All told, pharma offers a positive risk-reward opportunity.

Beverages, Food Products and Household

Products. Traditionally, these industries are considered more defensive and enjoy higher earnings sustainability. They are also likely to benefit in the short term from their exposure to hygiene and at-home consumption trends. With a strong balance sheets and free cash flow generation, these companies will not only be able to maintain their current dividends but also potentially raise them. With a 15% to 20%

correction in these sectors, the valuation has become more attractive, providing a case for capital appreciation along with dividend income.

"Toll" Businesses. Companies that lease capacity on cell towers or real estate investment trusts (REITs) owning data centers enjoy high barriers to entry. Their long-term contracts provide these firms with recurring revenues and stable cash flows. In the near term, they benefit from higher network demand and the increased use of cloud services. Longer term, the secular growth trends of 5G, mobile data and cloud computing provide sustainable revenues and cash flow growth. This should support the current dividends and set the stage for dividend growth.

International Opportunities. We see high quality companies domiciled outside the US that offer good current yield and satisfy our criteria for dividend sustainability. We favor pharmaceutical companies in Europe and Japan, beverage and household products companies in Europe and telecom and technology companies in Asia.

What to Avoid. With oil priced at less than \$30 per barrel, we expect energy companies, especially those with higher leverage, to cut dividends as they face significant cash flow challenges. There is some dividend risk for banks, too, as regulators may push back on capital return at this time. That said, bank balance sheets are less leveraged than in the financial crisis, which should limit dividend cuts. Finally, the outlook for consumer cyclical companies in industries such as retail, autos and hotels is highly uncertain, which may lead to sizeable dividend reductions. ■

Where to Look for Dividends

Industry	Dividend Yield (%)	Comments
Beverages	3.1	Short-term earnings risk, but well-positioned long term with strong brand and pricing power
Food Products	2.9	Huge demand for food products, especially in categories such as snacks and frozen foods
Pharmaceuticals	2.9	Safe havens with a positive long-term risk-reward opportunity
Tower and Data Center REITs	2.7	Barriers to entry and long-term contracts leading to recurring revenues and likely sustainable dividend growth. In the short term, benefits from work from home trend
Household Products	2.6	Attractively positioned with short-term demand boost as well as stable long-term fundamentals

Source: Morgan Stanley Wealth Management as of March 30, 2020

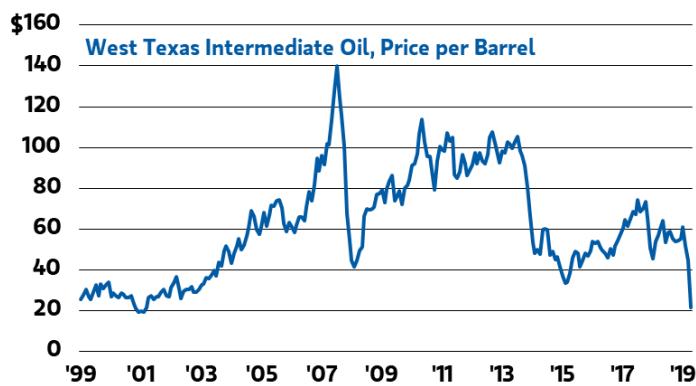
COMMODITIES

Saudi-Russia Rift Leaves Oil Prices at Multidecade Lows

Vijay Chandar, Investment Strategist, Morgan Stanley Wealth Management

March 2020 will be long remembered in the energy patch, even if it was a month most would like to forget. What was already setting up to be a difficult time for the energy industry, given broad concerns around economic growth, quickly turned into a crisis in the second week of March. A stalwart agreement between OPEC producers and Russia to limit crude oil production broke down in spectacular fashion, igniting a market-share war that has the potential to permanently alter the industry landscape. Saudi Arabia's decision to dramatically increase its crude oil output and Russia's pledge to respond in kind would have been enough to send oil prices crashing in a normal market. Now, with the backdrop of a market already struggling with lower demand as the global economy deals with the disruption caused by the spread of COVID-19, the supply shock posed by the breakdown of OPEC+ has sent oil prices to multidecade lows, and has thrown the industry into crisis (see chart, below).

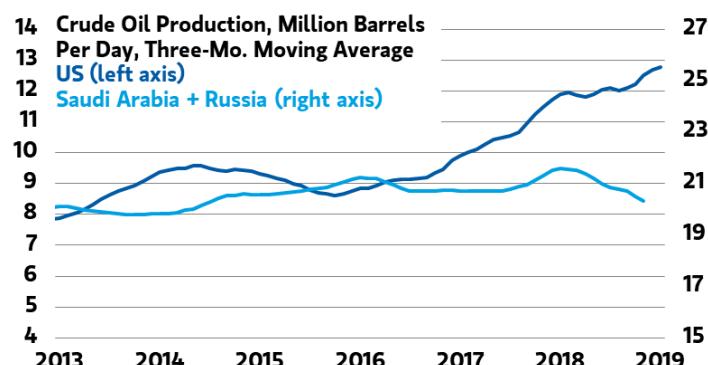
Oil Price Returns an 18-Year Low



Source: Bloomberg as of March 27, 2020

What do lower oil prices mean for US markets and the economy more broadly? While historically lower oil prices have tended to be a net positive for the US economy, the relationship has changed in recent years as the US has become the world's largest oil producer (see chart, upper right). Lower gasoline prices are a clear benefit for US consumers, but lower oil prices could hurt the US energy industry, driving layoffs in energy employment and making the overall economic effects more mixed. From a financial markets standpoint, energy matters less than it has in the past. In 2014, the last time OPEC launched a market-share war, energy stocks accounted for 12% of the capitalization of the S&P 500 Index; today, it's just 3%.

In Recent Years, US Has Surpassed Saudi Arabia and Russia to Become the World's Largest Oil Producer



Source: Bloomberg, as of Dec. 31, 2019 for US oil production and Oct. 31, 2019 for Saudi + Russia production

PROLONGED PRICE WEAKNESS. Investors holding positions in energy stocks should be prepared to weather a prolonged period of oil price weakness. This means emphasizing balance sheet quality and low leverage, and favoring companies that can still generate positive free cash flow even when pricing is depressed. The larger integrated oil companies may be better positioned for the current environment than pure exploration and production stocks as the bigger companies tend to have more manageable debt loads and better cash flow profiles.

So, what drove the breakdown in OPEC+ and why now? Ahead of the March 6 OPEC+ meeting, Saudi Arabia supported the idea of wider group production cuts in response to the deteriorating demand outlook. Reports during the meeting suggested Saudi Arabia was in favor of production cuts as great as 1.5 million barrels per day, or about 4%. Russia, however, appeared to favor simply advancing current limits and not cutting production further, reportedly on the belief that OPEC+ cuts would simply cede market share to higher-cost US producers.

The Russian view was borne out in the data; in what has largely been a low-price environment, US oil production has grown 4 million barrels per day since 2016. In contrast, Saudi and Russian production together has fallen by approximately 500,000 barrels per day. With Russia balking at additional cuts, Saudi Arabia drew a hard line: Either the group would push forward with deeper cuts, or the production quota scheme would be over. With Russia and Saudi Arabia unable to agree on a path forward, Russia's energy minister left the OPEC+ discussions and declared that all nations would be free to produce as much oil as they would like.

Oil markets quickly traded some 10% lower on March 6 as it became clear OPEC+ would not be curbing production further. Still, hope remained that producers would adhere to the old limits, and that perhaps an agreement could be reached in the coming weeks for deeper cuts. These

ON THE MARKETS

hopes were quickly dashed the following day, when Saudi Arabia announced it would be immediately increasing its production levels by more than 2 million barrels per day and slashing the prices at which it sells oil to foreign customers. In response to the Kingdom's production increase, Russia announced it too would raise production. With that, a market-share war was launched by two of the world's top-three producers. When oil markets opened for trading the following night, crude prices plunged 30%, and they have continued to drift lower in the weeks that followed. Prices are now at two-decade lows as oil trades below \$30 per barrel.

ENERGY MARKET IMPLICATIONS. The OPEC+ breakdown carries serious implications for the oil market. With production set to climb more than 2.5 million barrels per day while demand likely falls as COVID-19 wreaks havoc on the

global economy, the market is clearly oversupplied, and likely dramatically so. Martijn Rats, Morgan Stanley & Co.'s energy strategist, now forecasts that the oil market could be oversupplied by an average of 3.5 million barrels per day for the full year 2020, with much greater oversupply in the first half of the year due to demand disruption. Given the glut, Rats sees West Texas Intermediate crude oil remaining under \$20 per barrel in the second quarter, and recovering to only \$27.50 by the end of the year. With a market-share war now in full throttle and with prices likely to stay lower for longer, US production is forecast to fall in the range of 1.5 million to 2.0 million barrels per day by the end of next year. If so, that essentially reverses one to two years of US production growth. ■

CLOSED-END FUNDS

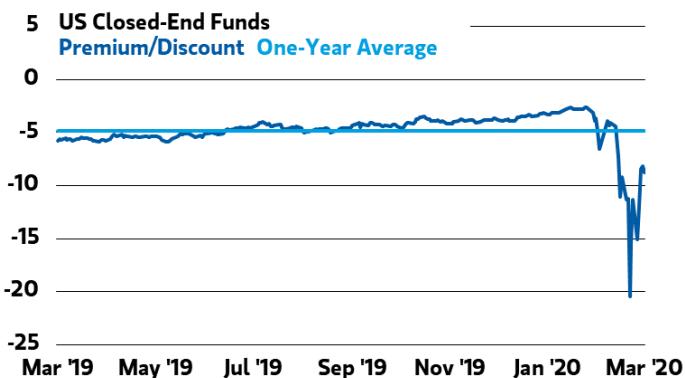
Market Volatility Reveals Yield Opportunities in Closed-End Funds

John Duggan, Investment Strategist, Morgan Stanley Wealth Management

Gray Perkins, Associate, Morgan Stanley Wealth Management

Despite their reputation in some circles as plodding, mundane yield instruments, closed-end funds (CEFs) have been fully on board for the past month's rollercoaster markets. Having plummeted to mid-March lows, they then accelerated upward (see chart). Because the rebound has only been partial, discounts to net asset value remain wider, at 8.7%, on average, than at year-end 2019, leaving an opportunity for judicious investors seeking distribution rates enhanced by purchase prices below net asset value (NAV).

Market Drop Opens Large Discounts in CEFs



Source: Morningstar as of March 27, 2020

VALUATION SWINGS. While CEFs have occasionally endured declines of similar magnitude, recent intraday volatility and ongoing valuation swings have rarely been matched. Several factors have contributed to the intense pattern: Liquidity-seeking investors use CEFs as sources of cash, and most CEFs use leverage in their portfolios, which magnifies gains and losses. Concerns around forced deleveraging—a phenomenon that occurs when funds like CEFs struggle to comply with mandated borrowing limits—have also increased investor anxiety. That anxiety has, in turn, contributed to snowballing market price declines, sometimes even on days when underlying fund holdings have risen, thereby creating even wider discounts.

In our view, value-oriented investors seeking equity-income CEFs that avoid the added risks of leverage should consider targeting funds in the large, diversified and mostly nonleveraged covered call category. Likewise, fixed income investors wishing to partially mitigate the ramifications of valuation swings should consider term trusts. Term trusts routinely trade at discounts or premiums, albeit usually narrower ones than conventional fixed income CEFs, because they have a maturity date at which they pay off at NAV.

OPTION WRITING FUNDS. Covered call CEFs, sometimes referred to as option income funds, seek to generate steady and attractive distributions by maintaining exposure to dividend-paying stocks and writing call options on varying percentages of the underlying holdings, or corresponding indexes, in order to pass on option income along with dividends and gains. While call writing typically restrains the upside depending on how, and to what extent, it is implemented, it may cushion total return on the downside compared to uncovered equity portfolios. Notably, opportunities for fund managers to target higher option income levels are likely to expand in the event of a prolonged step-up in market volatility, which often coincides with higher option premiums.

Given its \$16.7 billion aggregate market cap, the broad covered call category is one of the largest in the CEF universe, accounting for 24% of total equity fund capitalization. It features an array of choices in terms of manager, percentage of portfolio overwritten and geographic concentration, and only two of the 33 covered call CEFs regularly employ leverage. As with other equity investments, holders of covered call CEFs need to be mindful of market and product risks, including the potential for stock market declines amid higher volatility. Also, at times, aggressively set distribution rates can exceed a fund's earnings capacity and foster return of capital (ROC) and downward pressure on NAVs. While ROC may have advantages over other tax characterizations, we generally prefer funds with recent or anticipated NAV total returns in line with or greater than NAV distribution rates.

TERM TRUSTS. As indicated by the category name, term trust closed-end funds are CEFs designed to actively invest in a portfolio of securities prior to liquidating their holdings and returning net assets to shareholders at or around a specified date. Unlike perpetual CEFs, which are intended to exist and trade indefinitely, term trusts have usually been inceptioned with stated maturities anywhere from five to 20 years, with the newest ones typically set at 12 years. Final payment of a specific, predetermined amount is not guaranteed; rather, all term trust CEFs simply return whatever performance-driven NAV is at maturity, regardless of fund objective and "target" status.

In our view, the current 11.1% average distribution rate for CEFs is quite appealing compared with many segments of the bond market and other yield-focused portfolios. However, investors should view them with caution. Because of incremental deleveraging in some CEF categories during the past month, along with potential dividend cuts of underlying stocks and reduced income due to lower interest rates, we believe an increasing number of CEFs will need to reduce their payouts this year. Cuts could be large for many master limited partnership ETFs and could occur among some equity option income funds as well. Even so, on average, we expect distribution rates to remain compelling. ■

FIXED INCOME

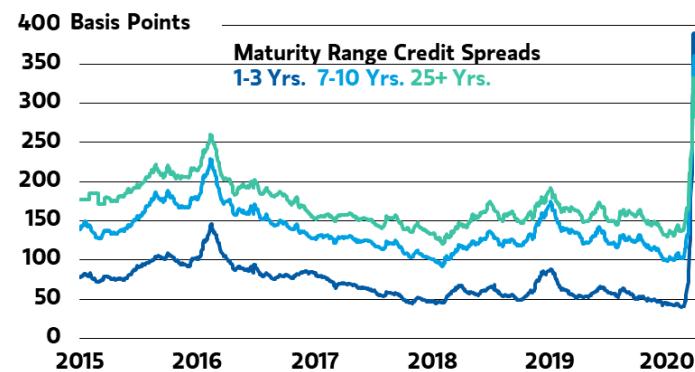
Sell-Off Feeds on Vulnerabilities in Investment Grade Credit

Daryl Helsing, CFA, Associate, Morgan Stanley Wealth Management

The double-barrel punch of the COVID-19 pandemic and the collapse in oil prices battered the corporate bond market for the first three weeks of March. In order to stem the downward spiral, the Federal Reserve pledged unprecedented policy support. The market's initial reaction has been quite positive, but even with a partial recovery, the year-to-date total return for the Bloomberg Barclays Investment Grade Corporate Index for March is -8.50% (as of March 27).

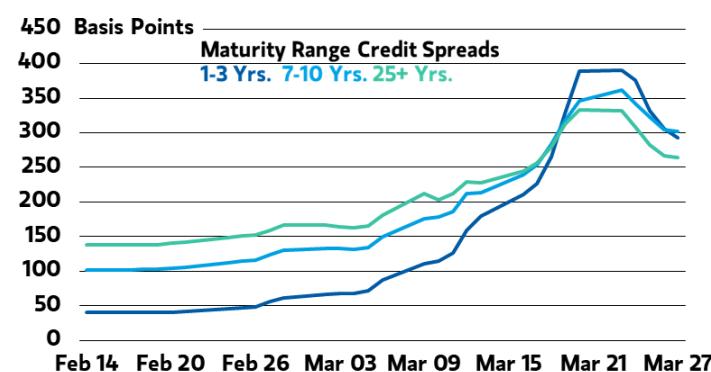
Spreads versus US Treasuries have recovered somewhat to 295 basis points after recently widening to more than 350 basis points—levels that haven't been experienced outside the financial crisis (see first chart). In mid-February, those spreads were near the tightest of the cycle, at less than 100 basis points for the one-to-three year maturities (see second chart, below). Together, the magnitude and velocity of the sell-off make this episode unprecedented.

Credit Spreads Soared Above Recent Years' Wides



Source: Bloomberg as of March 27, 2020

In the Past Few Weeks, Credit Spreads Have Eased



Source: Bloomberg as of March 27, 2020

CAUTIOUS STANCE VALIDATED. That said, from both fundamental and technical perspectives, the market was vulnerable to a downturn. As the cycle matured, the Global Investment Committee had maintained a cautious stance on corporate credit. Recent performance has also validated long-held views of the Morgan Stanley & Co. credit strategists that corporate credit would be a weak link in a downturn and that liquidity risks were more material than in past cycles. Ample attention has been given to how much the investment grade corporate bond market has expanded since the financial crisis, as the amount of debt outstanding has more than doubled over last decade. During that expansion, overall quality simultaneously deteriorated with the share of BBB-rated bonds, the lowest investment grade rating, expanding to 48% from 38%. Another important trend has been the higher profile of bond funds and exchange-traded funds, which has created a mismatch between vehicles that promise to deliver daily liquidity and their underlying bonds that, in a crunch, may not be so liquid.

The fragility of the corporate market has been exposed by the sudden macro shock and near-certain earnings disruption caused by the COVID-19 outbreak. The economic impact of the health crisis has driven an unrelenting demand for cash from companies and investors alike. While investment grade funds experienced their highest withdrawals on record, government money market funds had their highest inflows. The intensity of selling pressure drove the market prices of investment grade ETFs to historical discounts to net asset value. A one-sided market caused prices to gap lower, as the ability of dealer balance sheets to act as a buffer has been constrained by bank regulations.

PERCEIVED DISTRESS. As firms lost access to short-term funding through the commercial paper market, many turned to their bank lines of credit as a source of liquidity to help them manage the current crisis. This was perceived by the market as a sign of distress, leading to underperformance in shorter maturities. Spreads widened across maturity ranges; however, they widened the most for one-to-three-year maturities, going to 390 basis points from just 62 basis points. In contrast, seven-to-10-year spreads widened to 361 basis points from 131 basis points.

Among the numerous liquidity operations recently implemented by the Federal Reserve, a few are specifically aimed at corporate funding. The first measure was to re-establish the Commercial Paper Funding Facility, a program launched during the financial crisis more than a decade ago. The Fed also announced an unprecedented move to support credit to corporations by agreeing to purchase newly issued and outstanding investment grade bonds with maturities five years or less, as well as exchange-traded funds.

COMPELLING ENTRY POINT. MS & Co. credit strategists have recently updated their stance on investment grade credit to positive, as they believe current spread levels offer an attractive entry point and also take confidence in the Fed's support. Appreciating that we are amid a recession and there is uncertainty about the breadth and severity of earnings damage, they maintain that the market has more than fully priced in the risk of downgrades and defaults.

Two segments that deserve investor focus are the shorter range maturities and the financial sector. By their analysis,

current valuations of short-maturity bonds imply a default rate at an order of magnitude worse than that which has ever been experienced. In addition, this is the segment of the market that will benefit most directly from the Fed's measures. Finally, they reiterate their long-held preference for financial sector bonds, which constitute some 30% of the investment grade market. This recommendation is reinforced by MS & Co. bank analysts, who say that bank balance sheets should have the ability to withstand a sharp increase in customers drawing on their credit lines. ■

Q&A

How China Has Weathered the Coronavirus

While China was the first nation hit by COVID-19 earlier this year, life there “appears to be getting back to sort of normal,” says Robert Horrocks, chief investment officer of Matthews Asia, an investment management firm. “I think they are halfway or two-thirds of the way there, depending on the measures you look at.” He and his colleague Andy Rothman, an investment strategist, spoke recently with Morgan Stanley Wealth Management’s Tara Kalwarski about how coronavirus shaped the current economic and market landscape in China, and what they expect going forward. The following is an edited version of their conversation.

TARA KALWARSKI (TK): Can you share your thoughts on the impact of coronavirus on China?

ROBERT HORROCKS (RH): Before, with SARS and the swine flu, the economic impact was minimal. This time, the Chinese authorities put the city of Wuhan and the province of Hubei into lockdown, and the impact of that lockdown was significant. Although there has been economic impact from the lockdown in Hubei and Wuhan in particular, much of China seems to be coming back to normal.

More recently, globally there has been a panic in asset sales to acquire US dollars, but not to the same extent in China. People were quite happy to hold onto the assets they had. That’s why the market impact of the virus in China has been a lot less severe than we’ve seen elsewhere.

TK: Why do you think China’s markets have seen less of a decline that we’ve seen in Europe, the US or other Asian markets?

RH: There are three aspects affecting market prices: the medical aspect, the monetary aspect and the fiscal aspect. In terms of the medical, although it was very severe, Hubei and Wuhan are a small part of the overall Chinese economy. So in that sense, they were able to contain the virus quite well, and that contained the economic impact. As for monetary policy, China’s central bank was already easing when the virus came, so liquidity conditions were not so strained. In terms of fiscal stimulus, most people both inside and outside China believe that the government is well prepared to do it in large measure if necessary and very quickly. So I think, overall, people’s confidence in China was probably much higher that the government would deal with these issues, and therefore there were no panic-induced asset sales.

ANDY ROTHMAN (AR): We already have economic data from China for the first two months of 2020 that shows things were dismal: Inflation-adjusted retail sales were down 24% year over year, industrial production was down 14%, power

generation down 8%, fixed-asset investment down 25%—dismal, but not surprising. The virus basically went around and shut everybody’s doors, so there was no business being done. Those numbers are worse than expected, and that’s a good sign for two reasons. One, it shows that the Chinese government was focused primarily on tackling the virus, rather than worrying about the economy, and that’s good for the longer term. Second, it shows that there wasn’t much of an effort to beautify the numbers.

However, January and February data is typically depressed by winter weather and the Chinese New Year holiday. For example, fixed-asset investment is down 25%, but those two months typically only account for 6% of full-year investment. It’s similar for residential property sales: New home sales were down 39% year over year in square meter terms, but the first two months typically account for 7% of annual sales.

TK: What are the signs of improvement?

AR: We are looking at a lot of data, which is coming independently to us and from the government, including surveys that are being collected of consumers and small businesses. We’re also talking to people on the ground. Every day, life is a little bit closer to normal, but I think it won’t be fully normalized until the end of April, and it’s going to vary from sector to sector. Businesses like restaurants and cinemas are not doing so well because people are still nervous about going into confined spaces. On the other hand, companies in manufacturing and services that don’t require that kind of gathering appear to be picking up.

TK: Which areas of the economy might take longest to recover?

RH: There is friction in the supply chain. Think about big global markets, like automotive. How long before demand gets back up to normal there? How long before the supply chain in each part of that chain are operating normally? That could take months to get back on line, and each month of delay has a knock-on demand effect down the chain.

Bans on people traveling into China or the restrictions on people traveling in China affects hotels, duty-free shops, airports and airlines.

Now, having said that, the equity market in some of these areas has already acted in the extreme, and we think you can find good, quality businesses with “moat” protection. In the duty-free sector, for example, there are businesses that almost have a monopolistic kind of control, and the market is giving you an opportunity to get in at very reasonable prices.

TK: How would a global recession affect China’s recovery?

AR: This is a modest risk for China because it has become much less export oriented. For example, in 2019, the gross value of exports from China was equal to only 17% of its

GDP, and a lot of those exports were processed in China with little value added. The better way to measure potential impact is through net exports, the value of a country's exports minus their imports. In the past five years, on average every year, net exports contributed zero growth to China's GDP growth.

TK: What are your thoughts regarding where we stand with trade?

AR: It seems like it was a 100 years ago, but it's just been a couple of months since the US and China signed an agreement to put a hold on the trade war. I think that, so far, President Trump seems inclined to give China some slack, given the issues of logistics and demand brought up by the virus.

That said, we have seen some dangerous downsides in US-China relations aside from trade. You've had politicians on both sides firing shots at each other over who's responsible for a naturally occurring virus. We'll have to see how this develops, but I am very concerned about the direction of relations between the two countries.

TK: What's the best versus base versus worst case for China?

AR: My base case is that we're going to see something along the lines of a U-shaped recovery in the Chinese economy in coming months, based on the idea that it's a domestic-demand-driven recovery and that they have the virus increasingly under control, and that business is back in operation.

There are two key risks. The first, and the most important, is the virus itself. China made enormous progress on controlling the virus. In the five days ending Feb. 18, there were an average of over 2,000 new cases of COVID-19 every day. In the five days ending March 18, only 21 new cases per day—but now that people are getting back to work and gathering in public spaces again, there's a chance that the virus comes roaring back.

The second risk is the survivability of the small, private companies that drive growth because, just as in the US, the average company in China is privately run and relatively small. When their doors were shut for two or three months, they probably didn't have a lot of resources or bank credit to draw on.

Can those companies survive until their doors can open again so that they can benefit from that resumption of activity? I'm reasonably optimistic, because the Chinese government has been pretty proactive with measures such as temporary suspension of taxes and fees—everything from unemployment insurance to the Housing Provident Fund and health insurance contributions—and that will help.

RH: The very best case scenario for China is that the Western world emerges from this locked in a negative interest rate regime and would require governments to keep issuing more debt to inject cash into their economies. That obviously puts political and fiscal pressures on governments that they don't want to face and would be greatly alleviated by a China that is humming along on all cylinders. In such an environment, it would be in the self-interest of European and US governments to support Chinese expansion. That would probably create a weak-dollar environment, and would be a very positive place not only for the Chinese economy, and for China politically, but also for China in the eyes of global investment allocators.

TK: Where do you see US-China relations going from here?

AR: Relations have been getting worse for the last year. I don't think the virus has made it worse, but it has highlighted how bad it has become. I'm a little heartened that there's been a change in attitude on both sides in the last few days, but it's hard to know whether it's a turning point or just temporary.

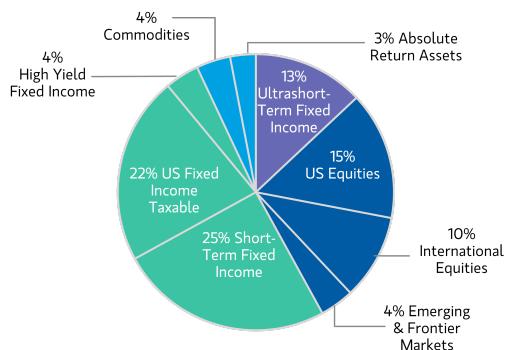
RH: If we've learned anything over the last few decades, it's that we get along as an economy and as a global system far better if we cooperate. In the trade dispute between the US and China, nobody was an economic winner. I worry about this antagonism between a rising empire in China and a falling empire in the US because it makes no sense for the two to be antagonistic. It's in the interests of both to work together. ■

Neither Robert Horrocks nor Andy Rothman are employees of Morgan Stanley Wealth Management or its affiliates. Opinions expressed by them are their own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

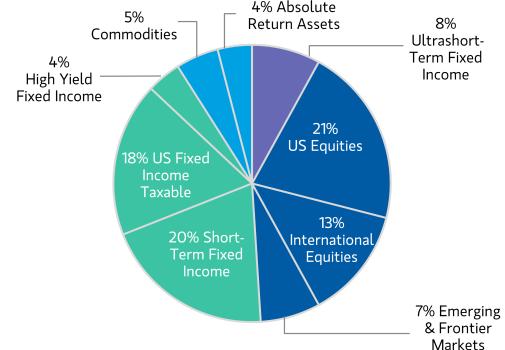
Global Investment Committee Tactical Asset Allocation

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with up to \$25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

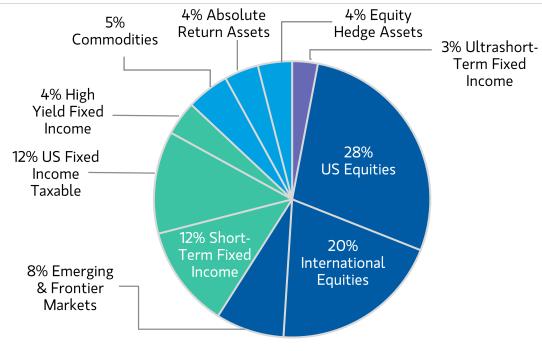
Wealth Conservation



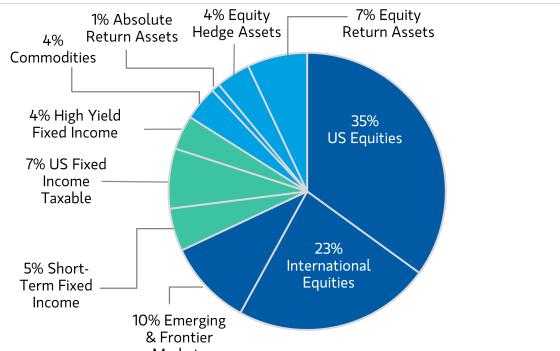
Income



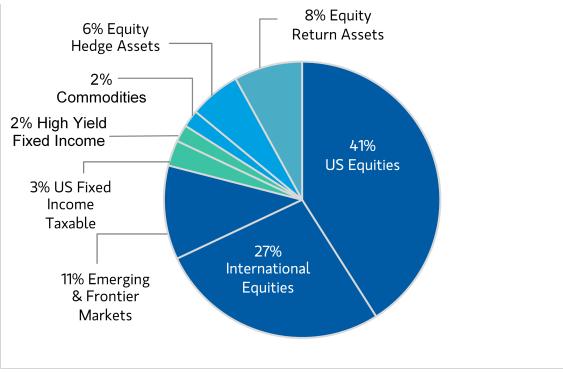
Balanced Growth



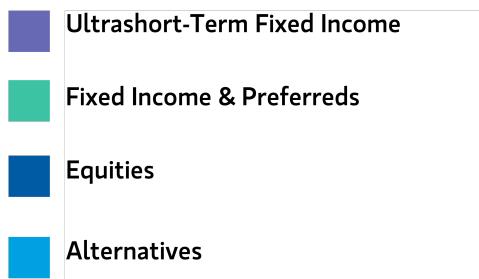
Market Growth



Opportunistic Growth



Key

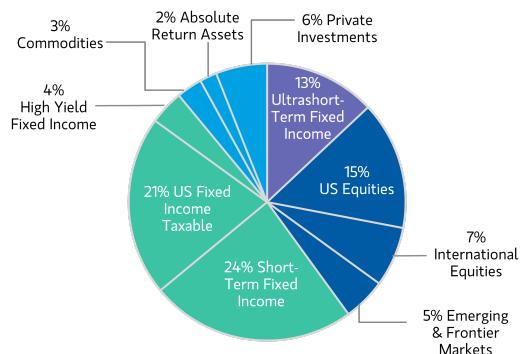


Source: Morgan Stanley Wealth Management GIC as of April 2, 2020

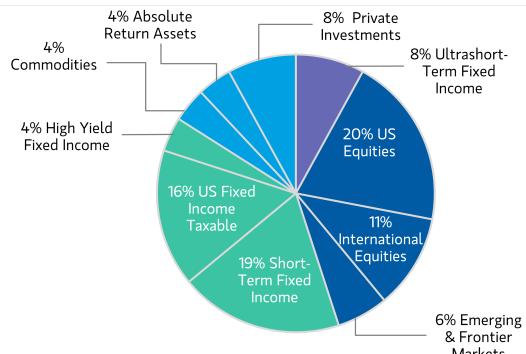
ON THE MARKETS

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with over \$25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

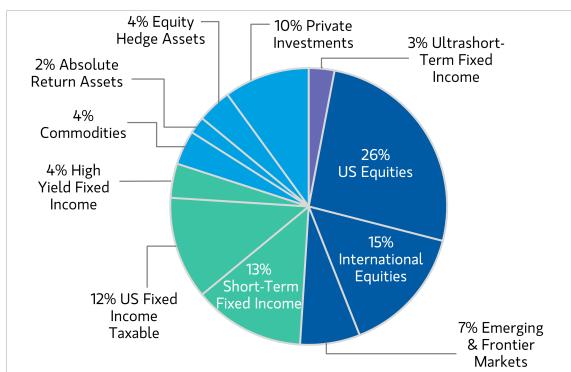
Wealth Conservation



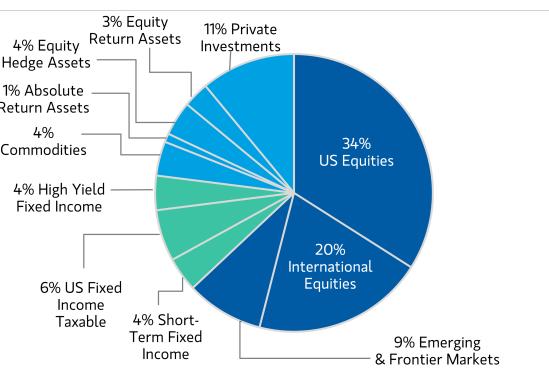
Income



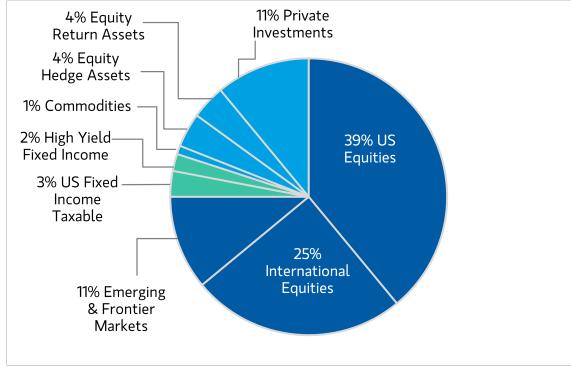
Balanced Growth



Market Growth



Opportunistic Growth



Key

- █ Ultrashort-Term Fixed Income
- █ Fixed Income & Preferreds
- █ Equities
- █ Alternatives

Source: Morgan Stanley Wealth Management GIC as of April 2, 2020

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Market Weight	Global stock markets have entered a bear market on concerns about the negative growth impact of the coronavirus. Although we expect US and global recessions in the second quarter of 2020, our base case is that recent extraordinary policy actions from both central banks and national governments will help cushion the economic impact. Markets are already pricing the most likely scenarios. We recently upgraded our exposure to large-cap growth and small- and mid-cap equities, believing that active stock pickers have a good entry point over the next several months
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. Recent bear market sell-offs have created extreme valuations and, as in the US, policymakers look to be ready to provide policy stabilizers. A global recovery in the second half coupled with US-dollar depreciation from crisis level highs are likely to provide the catalysts
Emerging Markets	Overweight	China was the first country to enter the COVID-19 crisis and appears poised to be the first out. Resumption of economic activity during the second quarter should jump-start global growth, especially given huge government stimulus programs. Ample liquidity from the Fed and a weakening dollar should catalyze investor interest. China stands to gain the most from US tariff rollbacks and global trade dynamics should improve. Valuations are attractive and local central banks should be able to maintain accommodation and stimulus. For most countries, especially China, the collapse in oil prices is material tailwind for consumer purchasing power
Global Fixed Income	Relative Weight Within Fixed Income	
US Investment Grade	Market Weight	We have recommended shorter-duration* (maturities) since March 2018 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels and had been pairing that position with a large exposure to long-term US Treasuries to hedge what we expected would be a modest correction in stocks. With long-term Treasury yields bottoming for the cycle, we recently sold that position and resumed a benchmark exposure to duration. Recent dislocation of investment grade credit spreads and market illiquidity have created opportunities. Fed programs aimed at backstopping this market give reason to be an active bond selector
International Investment Grade	Underweight	Negative interest rates suggest that this is not a preferred asset class for US-dollar clients at this time. Actively managed funds may provide very patient, risk tolerant clients with income opportunities in select corporate credits
Inflation-Protection Securities	Underweight	The "sudden stop" recession has caused a severe pricing of real interest rates, pushing them negative and near all-time lows. In the near term, upside is limited
High Yield	Overweight	High yield bonds remain at the epicenter of the dual risks from COVID-19 and the collapse in oil prices from the failure of OPEC negotiations. In our view, some of the most extreme risks have been discounted, especially in light of unprecedented monetary and fiscal policy intervention aimed not only at market liquidity but in bridging cash flow requirements. It's time to ease in opportunistically using active managers
Alternative Investments	Relative Weight Within Alternative Investments	
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive.
Commodities	Overweight	The "sudden stop" global recession has driven commodities such as oil to multidecade lows. The rush to the safety of the US dollar, which is near multiyear high, has exacerbated these dynamics. While we recognize the complexity of the geopolitical issues that surround oil, we believe that on a six-to-12-month basis the outlook for the global economy and overall demand improves materially. Thus, we suggest risk-oriented clients to establish exposure to the broad diversified asset class through the use of active managers. Pure passive exposure is not advised.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth concerns and/or interest rate volatility spikes, a scenario that is increasingly probable given valuations and year-end stock market euphoria. We prefer very active and fundamental strategies, especially equity long/short.

*For more about the risks to Duration, please see the Risk Considerations section beginning on page 18 of this report.

Source: Morgan Stanley Wealth Management GLC as of April 2, 2020

Disclosure Section

The **Global Investment Committee (GIC)** is a group of seasoned investment professionals from Morgan Stanley & Co. and Morgan Stanley Wealth Management who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend asset allocation model weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

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Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following: <https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions>

Risk Considerations

Alternative Investments

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be suitable for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

Hypothetical Performance

General: Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Hypothetical performance results have inherent limitations. The performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs.

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

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An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.

ETF Investing

An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. Investing in an international ETF also involves certain risks and considerations not typically associated with investing in an ETF that invests in the securities of U.S. issues, such as political, currency, economic and market risks. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics. ETFs investing in physical commodities and commodity or currency futures have special tax considerations. Physical commodities may be treated as collectibles subject to a maximum 28% long-term capital gains rates, while futures are marked-to-market and may be subject to a blended 60% long- and 40% short-term capital gains tax rate. Rolling futures positions may create taxable events. For specifics and a greater explanation of possible risks with ETFs, along with the ETF's investment objectives, charges and expenses, please consult a copy of the ETF's prospectus. Investing in sectors may be more volatile than diversifying across many industries. The investment return and principal value of ETF investments will fluctuate, so an investor's ETF shares (Creation Units), if or when sold, may be worth more or less than the original cost. ETFs are redeemable only in Creation Unit size through an Authorized Participant and are not individually redeemable from an ETF.

Investors should carefully consider the investment objectives and risks as well as charges and expenses of an exchange-traded fund or mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company's website. Please read the prospectus carefully before investing.

MLPs

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with **emerging markets** and **frontier markets**, since these countries may have relatively unstable governments and less established markets and economies.

Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Investing in commodities entails significant risks. Commodity prices may 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 in commodities and related

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contracts, (vi) pestilence, technological change and 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.

Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation ("SIPC") provides certain protection for customers' cash and securities in the event of a brokerage firm's bankruptcy, other financial difficulties, or if customers' assets are missing. SIPC insurance does not apply to precious metals or other commodities.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

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

Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

Ultrashort-term fixed income asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Although they are backed by the full faith and credit of the U.S. Government as to timely payment of principal and interest, **Treasury Bills** are subject to interest rate and inflation risk, as well as the opportunity risk of other more potentially lucrative investment opportunities.

CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum of \$250,000 (including principal and accrued interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for the purposes of the applicable FDIC insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository. For more information visit the FDIC website at www.fdic.gov.

The majority of \$25 and \$1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price.

The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

Some \$25 or \$1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs

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if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Companies paying **dividends** can reduce or cut payouts at any time.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Technology stocks** may be especially volatile. Risks applicable to companies in the **energy and natural resources** sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Credit ratings are subject to change.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

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