CLS's **WEEKLY 3**

What You Need To Know About the Markets

APRIL 2, 2019

1. Various market signals suggest market weakness, but we expect the rest of 2019 to remain good for stocks.
2. Investors and investment portfolios can stay resilient with a proper mindset and creative diversification.
3. What is Modern Monetary Theory? It suggests that federal deficits don't matter, unless there's inflation.

Market Performance (as of 3/29/2019)

Fixed Income	10-YEAR	5-YEAR	3-YEAR	1-YEAR	YTD	QTD	MARCH
Cash Equivalent[1]	+0.40%	+0.72%	+1.17%	+2.09%	+0.59%	+0.59%	+0.21%
U.S. Investment Grade Bonds[2]	+3.77%	+2.74%	+2.03%	+4.48%	+2.94%	+2.94%	+1.92%
Equities	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**MARCH**
Global Equity Market[3]	+12.21%	+6.48%	+10.67%	+2.41%	+12.10%	+12.10%	+1.21%
Total U.S. Market[4]	+16.06%	+10.51%	+13.54%	+9.00%	+14.09%	+14.09%	+1.56%
Domestic Large-Cap Equity[5]	+15.63%	+11.15%	+13.95%	+10.02%	+13.18%	+13.18%	+2.05%
Domestic Small-Cap Equity[6]	+16.37%	+7.02%	+11.47%	+3.14%	+15.50%	+15.50%	-1.56%
International Equity[7]	+9.22%	+2.80%	+8.15%	-4.06%	+10.21%	+10.21%	+0.61%
Developed International Equity[8]	+9.12%	+2.36%	+7.37%	-3.41%	+10.47%	+10.47%	+0.57%
Emerging Market Equity[9]	+9.73%	+4.26%	+10.92%	-6.06%	+9.42%	+9.42%	+0.73%
Diversifiers	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**MARCH**
Diversified Alternatives[10]	+4.44%	+0.43%	+1.45%	+0.98%	+2.18%	+2.18%	-0.47%
Commodity[11]	-2.56%	-8.92%	+2.22%	-5.25%	+6.32%	+6.32%	-0.18%

[1]Morningstar Cash Index [2]Bloomberg Barclays Capital U.S. Aggregate Bond Index [3]Morningstar GblMkt Large-Mid Index [4]Morningstar U.S. Market Index [5]Morningstar U.S. Large Cap Index [6]Morningstar U.S. Small Cap Index [7]Morningstar Gbl xU.S. Large-Mid Index [8]Morningstar DM xUS Large-Mid Index [9]Morningstar EM Large-Mid Index [10]Morningstar Diversd Alt Index [11]Bloomberg Commodity Index

March Market and Portfolio Review

Thanks to more gains in March, the U.S. stock market had its best quarter since 2009 and the best first quarter since 1998. And this happened despite widespread concerns the U.S. economy, if not the entire global economy, was about to slide into an economic recession. Nearly all growth-oriented asset classes, including domestic and international stocks and commodities, had double-digit gains for the first three months of the year.

There were conflicting market signals about potential economic growth. On one hand, since the stock market is generally a leading indicator of growth, the strong first quarter suggests improving economic prospects. The offset to that the view, however, is the market may have been simply rebounding from the sharp losses last year. There is some truth to that; but, nonetheless, the strong gains were still reassuring.

The more troublesome market signal, however, came from plummeting interest rates around the world, including in the U.S. The bond market is also a leading indicator of economic activity, and lower interest rates usually mean lower future growth. Economic growth weakened in the first quarter; however, the first quarter tends to be the weakest three months of the year for a variety of reasons, including the weather.

These conflicting signals serve as reminders of why balanced, diversified portfolios make the most sense for most investors over time. Still, which market is right? We'll discuss this further later. First, let's look at March's numbers.

The overall global stock market ended March up a bit more than 1%. It has now gained over 12% for the year.

The U.S. stock market gained nearly 2% and is now up more than 14% for the year. Smaller companies meanwhile, lost nearly 2% last month. They are still up by nearly 16% year-to-date. Larger companies gained a bit more than 2% and are up over 13% for the year.

International equity markets gained less than 1% in March and are now up over 10% so far, this year. Emerging markets also gained nearly 1% for the month have now have an over 9% year-to-date return. Developed international markets, meanwhile, also gained nearly 1% and are up over 10% for the year.

The bond market had a strong month, gaining nearly 2% in March and is now higher by almost 3% for 2019. The 10-year U.S. Treasury yield ended March at 2.41%. The three-month U.S. Treasury yield ended the month at 2.40%.

Real assets were mixed last month. Commodities ended with a slight loss, but are still up over 11% for 2019. Global real estate investment trusts (REITs) gained nearly 4% in March and are up nearly 15% for the year.

In general, CLS portfolios performed well again in absolute terms in March. With all major asset classes starting off the year with strong returns, globally diversified, multi-asset portfolios are participating in those gains. However, CLS's relative returns compared to benchmarks lagged due to the underperformance of emerging markets versus domestic stocks and due to the underperformance of value stocks versus growth stocks.

Is the Yield Curve Suggesting We Should Sell?

There has been a lot of talk about the yield curve lately, for good reason. First, the movement in the bond markets was, indeed, exceptional. Second, this movement has a history of telling us something about future economic conditions.

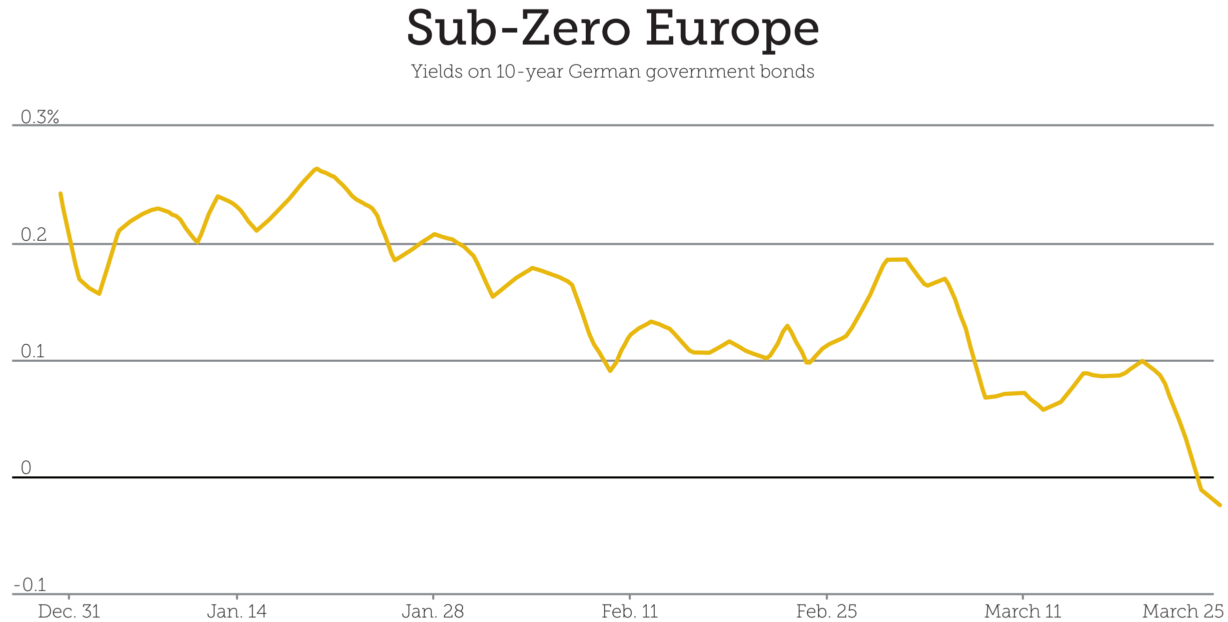
The "yield curve" refers simply to the varying interest rates or yields for all the different maturities of bonds, for example U.S. Treasury bonds. Longer-term bonds usually have higher yields than shorter-term bonds, since they tend to have more risk because it takes longer for bondholders to get their money back. This is normal yield curve behavior, and it makes economic sense. If we graph the yields of the various maturities of U.S. Treasuries, it would typically look like a curve.

There are numerous yield curve relationships that are popular to watch. One is the 3-month Treasury bill versus the 10-year Treasury bond. Another is the 1-year Treasury note versus the 10-year Treasury. Quite frankly, whichever yield curve we're considering, if the longer-term yield dips below the shorter-term yield, this qualifies as an inversion – and it's not common.

So, why did the recent yield curve inversions happen? While many think they occurred primarily because the Federal Reserve (Fed) gradually increased short-term federal funds rates to 2.5% (about the rate of inflation, which is normal), the inversions have been mostly about 10-year interest rates around the world falling sharply due to global economic concerns.

Here's one notable chart. German bonds fell below 0% in late March. This is just one of many examples of interest rates dropping around the world.

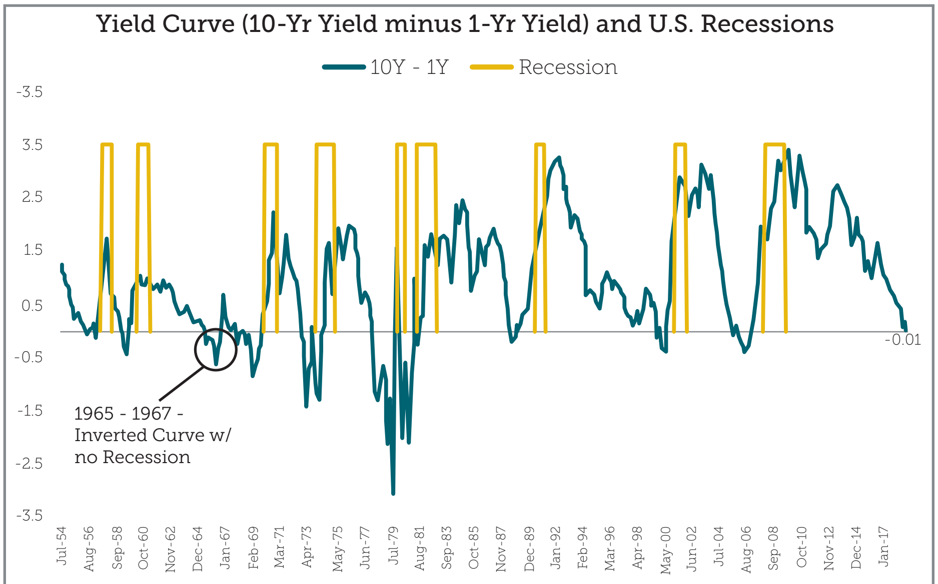
Many investors are jumpy about the yield curve inverting because it has a long-term track record of forecasting future economic growth. In short, the yield curve often inverts before economic recessions. There have been nine recessions since the 1950s, and in each case, the 1-year/10-year yield curve was inverted beforehand. It has been said that the yield curve does a better job of calling recessions than any economist. (That's not too difficult. Since 1988, there have been 469 recessions around the world, and economists have only predicted four of them.)



Source: Tullett Prebon Information. As of March 25, 2019.

The chart below shows that the yield curve (teal) dipped below zero and inverted before every recession (gold).

expect that. The economy is cyclical, and recessions are part of the economic package. That expectation, however, does not



Source: @charliebilello. Posted on WSJ: The Daily Shot, March 25, 2019.

So, what should investors do? First, they should expect that economic growth will likely slow in the year(s) ahead. Then again, it's always reasonable to necessarily mean that the stock market is about to fall off a cliff. In fact, during past yield curve inversions, the market has done well in the immediate months and quarters afterwards. In other words, we believe that this is not a time to sell.

But what about the popular view that since we have had a great first quarter, it's likely that we've seen all the gains for the year? Not so fast. The historical experience shows the opposite. That doesn't mean that this year could be the exception, but the historical experience suggests we may see more gains later this year.

According to research by CLS Senior Client Portfolio Manager Case Eichenberger, since 1970 (the furthest his data goes back) the S&P 500 Index returned above 10% in the first quarter nine times. All but one time (1987) the index finished higher than where the first quarter ended. And six out of nine times, the index finished above 20% for the year! See below.

Year	Q1 S&P 500 Total Return	Full Year S&P 500 Total Return	Final 3 Qs
1975	23.0	37.2	14.3
1976	15.0	23.9	8.9
1983	10.0	22.6	12.5
1986	14.1	18.7	4.6
1987	21.4	5.3	-16.1
1991	14.5	30.5	15.9
1998	13.9	28.6	14.6
2012	12.6	16.0	3.4
2013	10.6	32.4	21.8

Source: Morningstar

Case also wrote about how often the U.S. stock market has experienced returns above 20% in one year.

- Let's look at some base rates from the CLS Reference Guide to the right.
- In any given, rolling year, the odds of a 20% return or higher is 34%.
- If you're curious about how many calendar years saw gains above 20%, it's also high – about 30%.
- The bottom line is, stay balanced, stay invested, and don't time the market. Easier said than done!

Since 1926	1 Year
Returns > 20%	34%
Returns between 10% and 20%	23%
Returns between 5% and 10%	11%
Returns between 0% and 5%	8%
Returns between 0% and -5%	6%
Returns between -5% and -10%	6%
Returns < -10%	13%

Data as of 11/30/2018

Rusty Vanneman, CFA, CMT

President, Chief Investment Officer

Rusty Vanneman is responsible for leading CLS's Portfolio Management Team and overseeing all investment operations at CLS, including investment philosophy, process, positioning, and performance. Mr. Vanneman is also responsible for internal and external communications regarding market environment and current investment strategies. He is part of the management team for several of CLS's proprietary mutual funds. In 2018, Mr. Vanneman took on the role of President of CLS, in addition to his position as CIO.

*Mr. Vanneman joined CLS in September 2012 as Chief Investment Officer. Previously, he served as Chief Investment Officer and Portfolio Manager at Kobren Insight Management (KIM) in the greater Boston area. His 11-year tenure at KIM included a 5-year span during which the firm was owned by E*TRADE Financial and he served as the Senior Market Strategist for E*TRADE Capital. Prior to working at KIM, he was a Senior Analyst at Fidelity Management and Research (FMR Co) in Boston. He was also a Managing Analyst at Thomson Financial.*

*Mr. Vanneman received a Bachelor of Science degree in Management from Babson College where he graduated with high distinction. He has held the Chartered Financial Analyst (CFA) designation since 1994, and is a member of the CFA Institute. He has also been a Chartered Market Technician (CMT) since 1999, and is a member of the Market Technician's Association (MTA). In addition, Mr. Vanneman authored the book "Higher Calling: A Guide to Helping Investors Achieve Their Goals." He was named one of the Top 10 Portfolio Managers to Watch by Money Management Executive in 2017.**

Did you know? Rusty had a brief stint as a cowboy near the town of Valentine in Cherry County, Nebraska.

Be Resilient

At CLS, we tend to be optimistic investors. It's what pays the best as the markets tend to go up over time. But we are also paid to worry and be aware of risks that could impact the investment portfolios we manage. It's a commonly held belief that the most successful people in all walks of life are those that are "cautiously optimistic," and we like to think that also applies to being the best investment managers.

One key to being a good investment manager is resilience. When it comes to investing, being resilient has to do with more than ensuring a well-built portfolio; the investor's mindset also plays a role. Resilience is about the ability to cope with an unexpected event or crisis and not lose stride with how we conduct ourselves. This can be accomplished not only through a disciplined investment process but through effective habits and behaviors.

A successful investor is aware of the historical record and market relationships. He or she knows that the markets have their ups and downs, but, ultimately, they go up over time. A successful, resilient investor also acknowledges the noise and junk information that impact temporary, short-term movement, but he or she appreciates that long-term fundamentals and valuations (how much you pay for fundamentals) eventually win out.

At CLS, we often write about building resilient portfolios. Since most of our portfolios are constructed with our Risk Budgeting approach, which targets a specific risk level; we measure, monitor, and manage changes in the global markets' risk characteristics at all times.

Portfolio resilience is also emphasized in our CLS Investment Themes. One example is "Be Creative," in which we acknowledge that while traditional fixed income still serves an important function in balanced, multi-asset portfolios, investors should be creative and look at other asset classes and strategies to help diversify stock market risk. This includes using alternative strategies, such as merger arbitrage, managed futures, multi-asset hedge fund strategies, and more. It also includes real assets, such as commodities and real estate, for example: real estate investment trusts (REITs).

While not an official CLS Investment Theme, "Be Diversified" is another investment approach emphasized across portfolios. We are strong believers in global diversification, and our investment portfolios are more diversified than most – perhaps even more so now given current market conditions. Through our internal risk reports, we measure how diversified our portfolios are. Our goal is to be more diversified than our benchmarks.

Given the maturity of the current bull market, which is one of the longest and strongest in U.S. history, and the economic expansion (could this be the first decade ever without a recession?), we believe portfolios should be well-fortified and resilient for the years ahead. Whether the current cycle is in the bottom of the ninth inning, or has far more innings to go, portfolio management needs to be creative to ensure portfolios are well-diversified and resilient enough to meet whatever unexpected market behavior occurs in the future.

Perhaps the most popular question I have received from investors in recent weeks is about Modern Monetary Theory (MMT). This topic will be important to understand in the years ahead, as it will surely be a major talking point in the 2020 election. Its impact could become notable if it attains more proponents, especially if they are major economic decision makers.

MMT is controversial. It is also likely to become very political as it gains more notice and will surely be oversimplified and misrepresented. While it has some well-credentialed advocates, it also has notable critics from both the left and right. Some have dubbed it "Modern Magical Thinking" or even "Magical Monetary Tree."

While MMT has many principles and potential policy impacts, here are its most significant arguments:

1. Federal deficits usually don't matter, since the government has a monopoly over its currency.
2. Unlike households, governments don't have budget constraints, since they can just print as much money as needed.
3. The only real limit to a government's spending power is excessive inflation.

Essentially, MMT proponents argue that deficits don't matter as long as they don't stoke inflation.

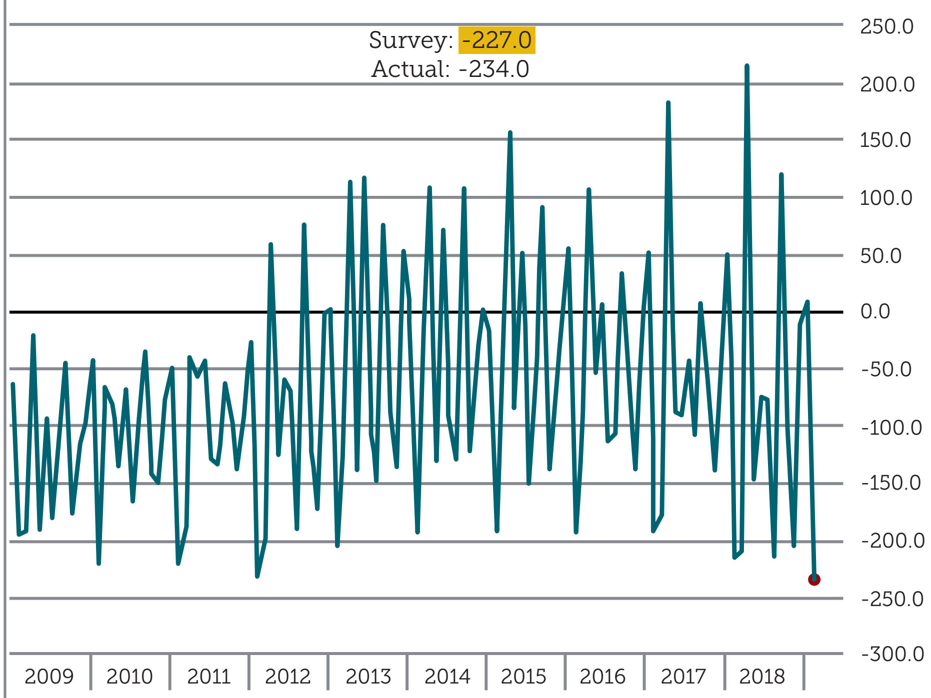
The topic of deficits is important. The federal deficit continues to grow, and the monthly deficit has grown to the widest levels seen in many years. So, are deficits bad or not?

Proponents of MMT argue that deficits don't negatively impact the economy if inflation doesn't take hold, and there are plenty of examples to support that. The U.S. has had huge deficits in recent years, but this decade could be the first in U.S. history without a recession or inflation! Another example is Japan, as they have been able to sustain its economy despite massive government debt for decades now. Sure, growth in Japan has been below average, but it has been stable.

However, I believe there is more powerful evidence about deficits than these two cases. When reviewing both the absolute level of debt and the trend of that debt, it's evident that a higher level of debt (typically measured as debt/GDP) and an increasing debt load both suggest below-average economic growth.

Ned Davis Research (NDR) published a study called "Deficits Do Matter" on March 22, 2019. In this study, NDR attempted to determine whether overall debt levels are improving or worsening. It found that since 1964, worsening (increasing) debt levels meant lower economic growth and lower job growth. It should be noted that growth was still positive in both cases, but it

U.S. Treasury Federal Deficit Or Surplus (Monthly, $bn)



Source: TheDailyShot®. As of March 22, 2019 was clearly lower than when the debt level was improving.

Some have argued that there is a certain chicken-and-egg relationship between deficits and economic growth. There is some truth to that, too. But again, there is more evidence, never mind intuitive sense, that supports the notion that more debt eventually translates into less growth.

A fascinating study called "Growth in a Time of Debt" by Reinhardt and Rogoff, published in 2010, became highly politicized and, thus, controversial. It was a comprehensive review of the impact of debt on economies. While it had a few initial data errors that trashed its reputation, its strong conclusions were significant and appear to be correct. The most significant was that economic growth slips about 1% from long-term averages to below-average growth until debt is sufficiently lowered. We've clearly seen that in the U.S.

The study cites the following conditions in a high-debt economy:

- High-debt levels signify lower, but still positive, economic growth.
- Interest rates stay low, and bond market returns are below average.
- The record on inflation is mixed, but it is generally below average in developed economies.
- The currency generally weakens.
- The domestic stock market typically has below-average returns.

Over the last 10 years, has this study been correct regarding the U.S. experience? For the most part, yes.

- We may not have had a recession, but economic growth has been below average by about 1%. Spot on.
- Interest rates have remained low. When the government spends more, that means more money gets put back in the banking system. If the private sector demand doesn't increase, in our opinion, the additional supply of money will likely push interest rates lower. That has happened. Ten-year U.S. Treasury yields are lower than they were 10 years ago and have been lower for most of the decade.
- While the U.S. dollar (U.S. Dollar Index) is currently higher than it was 10 years ago, it has mostly been lower over this time frame.

Now here are the big differences – but perhaps not: Inflation has remained low, but stock prices have moved much, much higher than long-term averages. Corporate profits have improved much more than GDP growth (for a combination of reasons), and that has clearly helped the stock market. However, valuations have also greatly expanded. In other words, inflation may not have shown up in typical consumer prices, but it has been seen in asset prices. It could be reasonably argued that we have seen significant asset inflation over the last 10 years.

What does this mean for CLS portfolios?

1. We expect lower growth from the U.S. (and other developed economies) in the years ahead; thus, we continue to favor emerging markets.
2. We do not think the bond market will get crushed. Sure, absolute return potential appears below average, but we believe traditional fixed income will still be functional in multi-asset portfolios.
3. Since currency weakness and inflation could still be threats, we continue to favor some alternatives exposure, such as commodities and real estate (REITs).

For a helpful summary of MMT, check out this article from Bloomberg.

Thank You

As always, a sincere thank you for reading. If you have any questions or feedback, please let me know.

Stay balanced.

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The Morningstar Global Market Large-Mid Index is an index that measures the performance of the global market's equity markets targeting the top 90% of stocks by market capitalization. The Morningstar U.S. Market Index is an index that measures the performance of U.S. securities and targets 97% market capitalization coverage of the investable universe. It is a diversified broad market index. The Morningstar U.S. Large Cap Index is an index that measures the performance of U.S. large-cap stocks. These stocks represent the largest 70% capitalization of the investable universe. The Morningstar U.S. Small Cap Index is an index that measures the performance of U.S. small-cap stocks. These stocks fall between the 90th and 97th percentile in market capitalization of the investable universe. In aggregate, the Small Cap Index represents 7% of the investable universe. Morningstar Global ex U.S. Large-Mid Index is an index that measures the performance of Global Markets (ex-U.S.) equity markets targeting the top 90% of stocks by market capitalization. The Morningstar DM ex U.S. Large-Mid Index is an index that measures the performance of developed markets ex-U.S. equity markets targeting the top 90% of stocks by market capitalization. The Morningstar EM Large-Mid Index is an index that measures the performance of emerging markets targeting the top 90% of stocks by market capitalization. The Barclay's Capital U.S. Aggregate Bond® Index measures the performance of the total United States investment-grade bond market. The Morningstar Cash Index is an index that measures the performance of a Treasury Bill with six to eight weeks until maturity in the U.S. market. The Bloomberg Commodity Index is made up of exchange-traded futures on physical commodities and represents commodities that are weighted to account for economic significant and market liquidity. This index provides investors with a means of understanding the performance of commodity futures markets and serves as a benchmark for investment performance of commodities as an asset class. The volatility of the indexes may be materially different from the individual performance attained by a specific investor. In addition, portfolio holdings of investors may differ significantly from the securities that comprise the indexes. You cannot invest directly in an index.

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The CMT Program demonstrates mastery of a core body of knowledge of investment risk in portfolio management. The Chartered Market Technician® (CMT) designation marks the highest education within the discipline and is the preeminent designation for practitioners of technical analysis worldwide. To learn more about the CMT, visit https://cmtassociation.org/

CLS Investments, LLC ("CLS") Chief Investment Officer, Rusty Vanneman, CFA, CMT, was selected as a "Top 10 Fund Managers to Watch" in 2017 by Money Management Executive. Money Management Executive is an unbiased, third-party publication covering the asset management industry. Money Management Executive chose the list of managers to watch by screening Morningstar data from funds with a single manager, ranked as having the best three-year annualized returns in their respective categories. The list of managers was published March 27, 2017. Money Management Executive is not affiliated with CLS. Ratings and awards may not be representative of any one client's experience and are not indicative of CLS's future performance.

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