CLS's WEEKLY 3

What You Need To Know About the Markets

FEBRUARY 12, 2019

1. How NBA player trades relate to investing
2. Maximizing deductions and reducing taxable income with municipal bonds
3. Why we believe Risk Budgeting is a better approach to building balanced portfolios

Market Performance as of 2/8/2019

Fixed Income	10-YEAR	5-YEAR	3-YEAR	1-YEAR	YTD	QTD	LAST WEEK
Cash Equivalent[1]	+0.37%	+0.64%	+1.04%	+1.95%	+0.25%	+0.25%	+0.04%
U.S. Investment Grade Bonds[2]	+3.72%	+2.44%	+1.77%	+3.22%	+1.20%	+1.20%	+0.38%
Equities	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**LAST WEEK**
Global Equity Market[3]	+10.79%	+6.45%	+12.88%	-0.42%	+7.38%	+7.38%	-0.53%
Total U.S. Market[4]	+14.55%	+10.34%	+16.19%	+7.00%	+8.97%	+8.97%	+0.18%
Domestic Large-Cap Equity[5]	+14.43%	+10.81%	+15.83%	+7.04%	+8.24%	+8.24%	+0.11%
Domestic Small-Cap Equity[6]	+13.89%	+7.64%	+17.44%	+4.29%	+11.80%	+11.80%	+0.32%
International Equity[7]	+7.89%	+2.68%	+10.11%	-7.77%	+6.11%	+6.11%	-1.31%
Developed International Equity[8]	+7.70%	+2.21%	+8.42%	-8.23%	+5.04%	+5.04%	-1.38%
Emerging Market Equity[9]	+8.95%	+4.47%	+14.80%	-8.73%	+7.34%	+7.34%	-1.34%
Diversifiers	**10-YEAR**	**5-YEAR**	**3-YEAR**	**1-YEAR**	**YTD**	**QTD**	**LAST WEEK**
Diversified Alternatives[10]	+4.59%	+0.79%	+1.99%	+0.47%	+1.97%	+1.97%	-0.18%
Commodity[11]	-3.00%	-8.37%	+3.17%	-6.04%	+4.64%	+4.64%	-1.06%

[1]Bloomberg Barclays Capital 1-3 Month U.S. Treasury Bill Index [2]Bloomberg Barclays Capital U.S. Aggregate Bond Index [3]MSCI ACWI Index [4]Russell 3000 Index [5]S&P 500 Index [6]Russell 2000 Index [7]MSCI ACWI ex-U.S. Index [8]MSCI EAFE Index [9]MSCI Emerging Markets Index [10]Morningstar Diversified Alternatives Index [11]Bloomberg Commodity Index

Week in Review

U.S. stocks finished flat last week, while international stocks underperformed on more worries of a slowdown in Europe. The European Commission reduced its forecast for eurozone economic growth from 1.9% to 1.4% in 2019.Uncertainty over trade talks and the potential for another government shutdown kept volatility elevated.

The MSCI EAFE and emerging market indices were down 1%. Commodities were down 1% on the week led by lower oil prices. Bond yields were lower overall on the week with the 10-year U.S. Treasury yielding 2.64%.

Anthony Davis Traded to . . . My Portfolio?

Content Provided by Aleck Liu, Junior Investment Research Analyst

One thing I kept my eye on last week (besides the market) was the NBA trade deadline and how that might impact my Lakers. For those who don't particularly follow the NBA, the Los Angeles Lakers have been heavily engaged in trade talks with the New Orleans Pelicans for their superstar player, Anthony Davis. To make a long story short, the Lakers were ready to pack up half of their roster, including the rights to future players, to land Davis (that would be around five current players on the roster and the rights to another six via the draft). Thankfully, the trade deadline passed, and Magic Johnson, president of operations, decided not to complete the deal.

This ordeal has a striking similarity to investing. I think the basketball world agrees that Anthony Davis is a great player, and any trades involving him would have to be at a high price. But fair value isn't what we want to pay when we invest (and isn't what I wanted the Lakers to pay for Davis either). To paraphrase Warren Buffett, a good company needs to be bought at a good price to realize value investing. Overpaying for a company (even if it's a good one) negatively impacts your future returns.

Let's take Amazon as an example. This is a company with great margins, tremendous growth, a visionary leader focused on the expansion of Amazon operations, and stunning applications in our everyday lives. This is a company that can (somewhat) be compared to Anthony Davis: a darling of the stock market with high expectations for success.

But it's expensive.

Let's flesh out the basketball analogy a little further. Let's say, hypothetically, the trade did go through, and the Lakers ended up with Anthony Davis to pair with Lebron James. The rest of their roster would be terrible. What are the future expectations around that? Can L.A. really compete for a championship with a gutted roster led by two superstars? Basketball is a team game; even with two of the top five players in the league, I doubt they would get too far. Their trading partner was asking too much.

Back to Amazon. This superstar company is trading at a price-to-earnings (P/E) ratio of 83. The P/E ratio of the S&P 500 Index is trading at 17.9. This tells me that my trading partner is asking for too much (i.e., the market is asking for too much). If I buy an expensive company, that doesn't bode well for my future returns, and it's not a position I can craft my long-term vision around. Plus, CLS believes that the U.S. market is already expensive relative to international markets, so that's essentially double the reason not to take this trade.

So, what do we do? We know that Amazon is a great company, but we also know that our trading partner is being unreasonable. The answer is – we wait. To take another analogy coined by Buffett (this time, baseball), "you don't have to swing at every pitch." When that fastball comes right down the middle, that's when I'm going to swing for the fences. But this isn't one that I want to swing on.

To wrap this up in a neat little package, I'm relieved that the Lakers didn't end up trading for Anthony Davis; I'm relatively sure this would have caused the team to implode and wouldn't have produced any championships. I'm similarly glad that I chose not to buy any Amazon stock during its entire historic run because it was too expensive. As the market showed us in December, that could have caused my portfolio to implode and would have drastically impacted my future returns. Waiting for my trading partner to become a little bit more reasonable is a good course of action to take, and I believe investors everywhere should ensure that their trading partners are being reasonable before committing to deploying their cash.

Another Look at Municipal Bonds

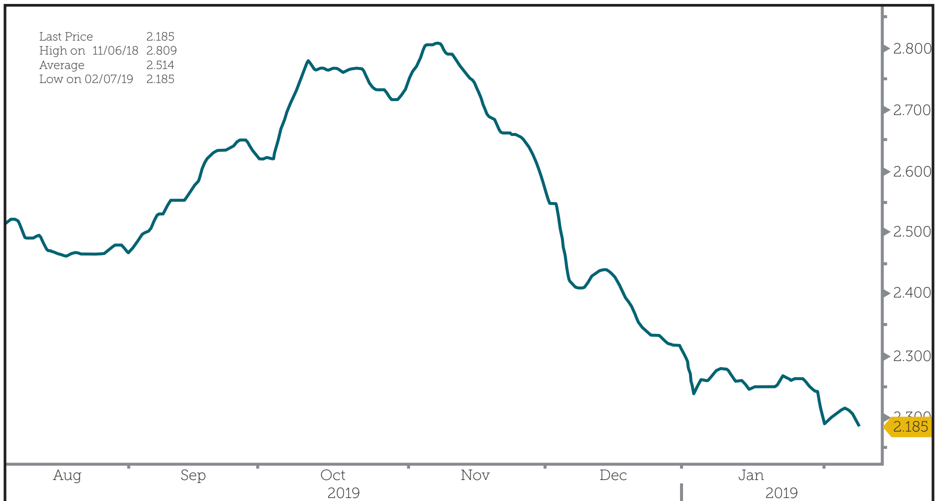
Although the new tax code has reduced marginal tax rates, municipal bonds remain a viable and relatively attractive investment for many high net worth investors. Of special note are those investors who live in high-tax states, such as New York, Massachusetts, and California, and will be looking to maximize deductions and minimize taxable income.

Muni bonds are not taxed at the federal level, and depending on the state you live in, many are issued with exemptions from state and local taxes, too. So investors get to keep more of their income. Additionally, muni bonds have historically been safer investments than debt issued by corporations. While there are exceptions, of course, default rates are much lower for municipal bonds when compared to corporate bonds with similar credit ratings.

Many municipalities can raise taxes or cut services in order to make payments. Furthermore, municipal bonds followed Treasury rates upward in 2018 and are following them back down again, too. With the current 10-year U.S. Treasury yielding around 2.65% as of this writing, the municipal ratio has remained attractive with yields approximately 83% of Treasuries.

USGG10YR Index (U.S. Generic Govt 10 Year Yield) Daily 07AUG2018 - 07FEB2019

Source: Bloomberg Finance L.P. as of 2/7/2019



BVMB10T Index (BVAL Muni Benchmark 10T) Daily 07AUG2018 - 07FEB2019

Source: Bloomberg Finance L.P. as of 2/7/2019

If rates continue to rise (and that is a big if) as a result of a stronger domestic economy, revenues from municipal issuers will also rise, making them a stronger credit. Regardless, I believe they will continue to be a good source of income for investors going forward. Additionally, we believe that bonds belong in diversified, balanced portfolios. Investors were certainly happy to own them in the fourth quarter of 2018. I write from experience as I manage several individual, customized municipal portfolios as part of CLS's Master Manager Strategy.

If you are interested in learning more about fixed-income options, please reach out.

Slow and Steady Wins the Race

Content Provided by Jackson Lee, CFA, Associate Quantitative Portfolio Manager

At CLS, we spend a lot of time talking about Risk Budgeting and have written extensively on the topic. While I am not going to recite the definition of the CLS Risk Budget (RB) or explain why it is our signature methodology that guides how we manage money, I do want to take a moment to review why we believe RB could help investors achieve their financial goals. For those who want to learn more about this detailed methodology, please refer to the RB white paper.

In summary, CLS believes that RB is a better approach to building balanced, multi-asset portfolios for three reasons:

1. It helps establish investor expectations regarding portfolio performance.
2. Portfolios with more stable risk tend to have lower "behavior gaps."
3. Portfolios with more stable risk tend to have better performance over time.

The first reason might seem simple and intuitive, but it could be viewed as the foundation of the following two. Our role as a money manager could be split into two broad categories: 1) portfolio management and 2) coaching. While performance is important, and we can implement different models for better chances to gain higher returns, the market is unpredictable, and we have very little control over it. However, what we do have control over is how we coach our clients when the market corrects. Showing them we are keeping our promises during those times will make client conversations go a lot smoother.

This is why we believe portfolios with more stable risk tend to have lower behavior gaps and better performance over time. A recent study we conducted internally confirms this, and here's a summary of the results:

- The fund's risk variability (as measured by the deviation of the portfolio risk over time) and performance have a negative correlation. In other words, funds with more volatile risk tend to have lower risk-adjusted returns.
- Funds in the top decile (more stable) in terms of risk variability on average outperformed the funds in the bottom decile (more volatile) by 1.34% annualized.
- Furthermore, funds in the top decile also experienced lower behavior gaps, as measured by the difference between the fund's returns and the investor's returns, than those in the bottom decile by 13 bps.

Marc Pfeffer

Chief Investment Strategist

Marc Pfeffer specializes in fixed income strategies. He is a Portfolio Manager on the CLS Flexible Income Fund team and manages the CLS Active Income X Strategy and CLS's ETF strategies. He also manages individual municipal bond portfolios for the CLS Master Manager Strategy and is a senior member of the CLS Investment Committee.

Mr. Pfeffer joined CLS in 2011, continuing as Senior Portfolio Manager for the Milestone Treasury Obligations Fund. The Fund was incorporated into CLS's fund family in January 2012. Mr. Pfeffer has more than 30 years of investment management experience, including time spent as the Chief Investment Officer at Milestone. He also worked previously at Goldman Sachs and Bear Stearns.

Mr. Pfeffer graduated from the State University of New York at Buffalo with a Bachelor of Science degree in finance. He received his Master of Business Administration degree, with a focus on finance, from Fordham University. Mr. Pfeffer holds his FINRA Series 7, 63, and 65 licenses.

Did you know? Marc is an avid poker player.

The MSCI ACWI Index captures large and mid cap stocks across developed markets and emerging markets countries. The index covers approximately 85% of the global investable equity opportunity set. The Russell 3000 Index is an unmanaged index considered representative of the U.S. stock market. The index is composed of the 3,000 largest U.S. stocks. The S&P 500 Index is an unmanaged index of 500-large capitalization companies. This index is widely used by professional investors as a performance benchmark for large-cap stocks. The Russell 2000 Index is an index comprised of the 2,000 smallest companies on the Russell 3000 Index and offers investors a benchmark for small-cap stocks. The MSCI ACWI ex U.S. Index (MSCI All-Countries World Index, excluding U.S.) is an index considered representative of stock markets of developed and emerging markets, excluding those of the U.S. The MSCI EAFE Index is an index which tracks performance of international equity securities in developed countries in Europe, Australia, Asia, and the Far East, excluding the U.S. and Canada. The MSCI Emerging Markets Index is an index which tracks performance of large and mid-cap firms across countries classified as emerging market countries. The Bloomberg Barclays Capital U.S. Aggregate Bond Index measures performance of the U.S. investment-grade bond market. The Bloomberg Barclays Capital 1-3 Month U.S. Treasury Bill Index includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. 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. The Morningstar Diversified Alternatives Index is an index comprised of exchange traded funds (ETFs) in the ProShares lineup that use alternative and non-traditional strategies. An index is an unmanaged group of stocks considered to be representative of different segments of the stock market in general. You cannot invest directly in an index.

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