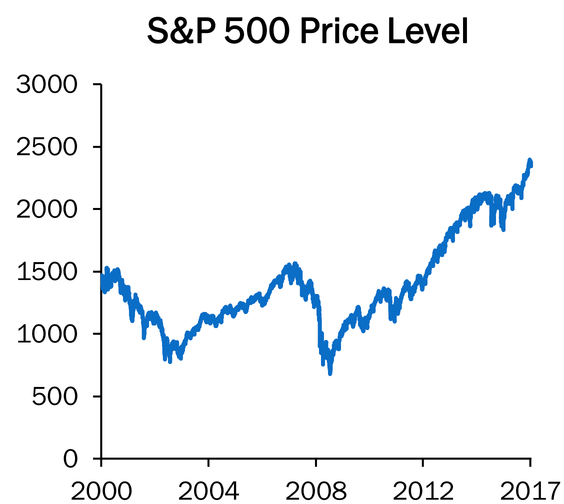
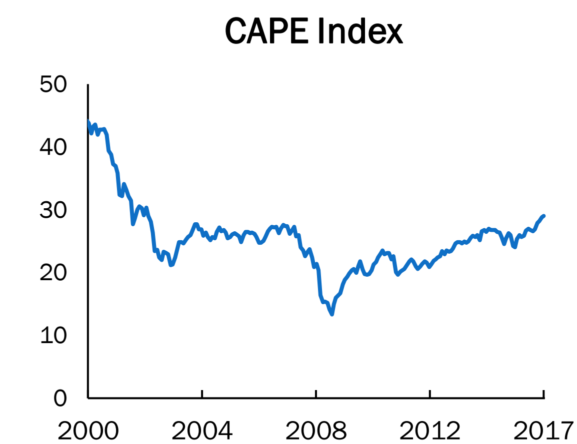
The Economy and Markets:

U.S. stock market indices continued their recent climb, posting another solid quarterly return. The S&P 500 closed this quarter at a value of 2,362.72, which is 5.53% higher than its value of 2,238.83 at the end of 2016. The S&P 500 hit its all-time high this quarter on March 1, at a level of 2,395.96. Current index levels, while they have retreated, are not far off that mark.

Markets at a Glance (March 31, 2017)	
S&P 500	2,362.72
Dow Jones	20,663.22
10 yr. U.S. Treasury	2.39%
3mo U.S. Treasury	0.75%
GDP Growth (last quarter)	1.9%
Unemployment Rate	4.7%

There are two broad risk metrics that we at Madison Financial Research tend to keep an eye on (bearing in mind that no one metric, or even two metrics, can alone tell the entire story), both of which we have discussed in detail in past newsletters.[1] The first is the VIX risk measure, which stands at a strikingly low value of 11.57 at the close of trading on March 31, well below its long run average of around 18. The VIX measure comes from the price of options traded on the S&P 500, and is a market-derived measure of the expected variability of price movements in that index. By contrast, the CAPE measure (CAPE is an acronym for "cyclically adjusted price to earnings") is a measure of the "value" of the stock market. When the measure is high, long-term (7 – 10 years) future stock returns tend to be low. When the measure is low, long term future stock returns tend to be high. The average for the CAPE measure is also around 18 or so. Currently, the CAPE measure stands around 29, indicating that at least by this measure, the market is expensive by historical standards. Indeed, most measures of market valuation currently indicate that the market is currently "expensive," which implies lower than than expected returns going forward. However, such forecasts are notoriously difficult to provide with any accuracy. Taken together, these metrics suggest that the major indices are not expected by market participants to move around much, but also that the stock market is currently "expensive" – which it has been for several years.

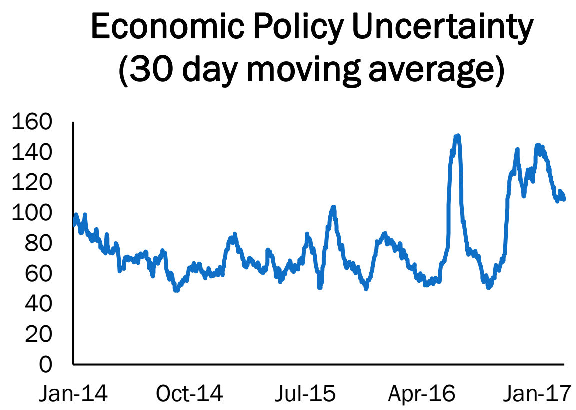




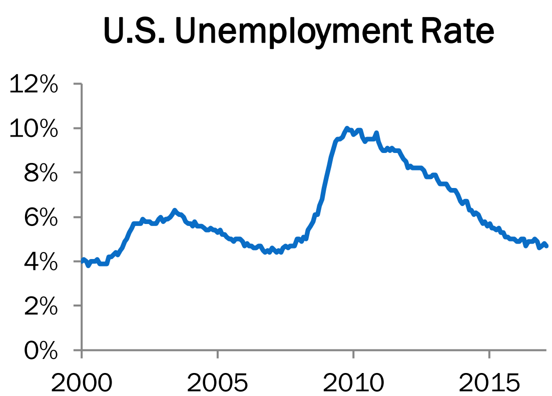
With politics so often in the news lately, another interesting barometer of risk is the Economic Policy Uncertainty (EPU) Index developed by economists at Northwestern, Stanford and the University of

[1] All past newsletters, and some other useful resources, may be downloaded at http://www.madisonfinancialresearch.com/Resources.html .

Chicago.[2] This measure relies on aggregation of keywords from news stories to develop a measure of policy uncertainty, and was discussed in detail in our last newsletter. Since the U.S. presidential election in November, the United States has experienced a heightened degree of policy uncertainty (which will come under the "gee, no kidding" file to anyone that regularly keeps up with the news).



While the valuations of the U.S. stock market appear elevated, the domestic U.S. economy continues to appear to be in excellent shape, producing yet another quarter of steady growth. The most recent estimates of 4th quarter 2016 GDP (the latest available) show that the U.S. economy grew at an annualized 1.9% rate. The unemployment rate now stands at 4.7%, just slightly above the unemployment rate we reported in December. The modest increase in the unemployment rate, however, appears to be largely the result of an increase in the number of people returning to the job market and looking for employment. This 4.7% rate is on the lower level of what most economists would consider "full employment." Therefore, it is thus very likely that substantial further labor market improvements would lead to higher inflation. There are several ways to estimate U.S. inflation, but current estimates from market trading are about 2.04% over the next year, and 1.94% per year over the next 5 years. While this is a mild level of inflation, these numbers are both higher than last quarter, and higher than the quarter before that. Inflation appears to be modestly increasing, consistent with the improving employment picture.



In March, the Federal Reserve raised the federal funds target rate again, from a targeted range of 0.50% - 0.75% to a new range of 0.75% - 1.00%. The federal funds rate is an overnight rate, and so most directly affects short-term lending rates. Consistent with this, three-month Treasury yields are now at 0.75%, up from 0.50% last quarter, while 10 year Treasuries are currently yielding about 2.40%, down slightly from last quarter. The Federal Reserve decreases rates to help spur the economy, and increases rates to help slow it down (to help keep inflation under control). Typically, an increase in short term rates is associated with a corresponding increase in long-term rates. It is not unusual for a small increase in three month Treasury rates such as this to be associated with a small 10-year Treasury decline, but it is worth mentioning, and watching. With that small caveat, the fundamentals of the economy appear to be on solid footing.

[2] The development of their index can be found here:
http://www.policyuncertainty.com/media/EPU_BBD_Mar2016.pdf

Quarterly Special Topic: The Interesting Outcome of Warren Buffett's Bet

This past quarter, Warren Buffett released his annual letter to investors in his company, Berkshire Hathaway. This newsletter is unique among letters to corporate shareholders in several respects. Indeed, it might be the only such letter in existence that people actually look forward to reading. His letter to shareholders tends to be entertaining (as such things go) and educational, as well as informative about the state of the company. If you don't have the $265,000 or so to buy a share of his investment company (or even the much easier to scrape-together $175 to buy a class-B share), I still recommend that you take a bit of time to skim through his newsletter each year. It is enlightening.[3] It is often enlightening in different ways from one year to the next, but it has been consistently enlightening nonetheless.

I'd like to elaborate a bit on one of the topics in the Berkshire Hathaway letter this year, because it is so close to my heart. Back in 2005, Warren Buffett utilized a company called "Long Bets" to wager that the S&P 500, which (roughly) tracks the market as a whole, would outperform a collection of hedge funds over a 10-year period.

Many of you are familiar with hedge funds and what they do. For those of you who aren't, let me describe them briefly. Hedge funds are investment companies somewhat like mutual funds, but with far fewer restrictions. They are generally structured to only allow investment by "sophisticated investors," which frees them from most regulatory obligations. Hedge funds are allowed to both buy assets as a typical mutual fund would, but also to borrow assets to sell – a process known as a "short sale", which is a way of betting that the market will decline. They are also able to invest in a wide range of assets – farmland, tanker cargo, Microsoft stock, corporate bonds, various sorts of derivatives…the sky is the limit.

Hedge funds generally market themselves as being the "best of the best" in the investment world, and in many respects they are. They pay the highest salaries for talent, and the sums are astronomical. According to Forbes Magazine, the highest paid hedge fund manager in 2015 (the most recent year reported) was Ken Griffen, who earned $1.7 *billion* (and yet kids still want to grow up to be athletes and entertainers – this guy's salary was 82 times larger than Tom Brady's mere $20.5 million). Mr. Griffen is founder and CEO of Citadel, a leading hedge fund.[4] And therein lies the rub – investors who want their funds to be managed by this top-flight talent must pay top-flight fees. The typical cost structure of a hedge fund is described by a "two and twenty" fee structure. The fund charges fees of two percent, plus 20 percent of the profits earned by the fund. This is much, much higher than the typical mutual fund, and many hedge fund managers charge a good bit more than this. For example,

[3] If you have an interest in reading the letter for yourself, you can find it here: http://www.berkshirehathaway.com/letters/2016ltr.pdf , and indeed you can find all of his letters going back to 1977 here: http://www.berkshirehathaway.com/letters/.

[4] He is also from my home town of Daytona Beach, which somehow leaves me with the uneasy feeling that I should be doing a bit more with my life.

Tudor Investment Corp, a hedge fund, last year lowered its fees slightly. It had been charging 2.75% and 27 percent of profits.

This brings us to Mr. Buffett's wager. Warren Buffett argued that whatever increased returns might be captured by hedge funds, they would not offset the astronomically high fees. And so he offered the following wager:

> "Over a ten-year period commencing on January 1, 2008, and ending on December 31, 2017, the S&P 500 will outperform a portfolio of funds of hedge funds, when performance is measured on a basis net of fees, costs and expenses."[5]

The bet is for $1 million, to be donated to a charity of the winner's choice. The details outlined in Buffett's investor letter indicate that the bet was specifically that no one could pick 5 "fund of fund" hedge funds that would collectively beat a Vanguard S&P 500 Index fund. Assuming they selected the "Admiral" Vanguard index fund, it has generally had a fee about 0.10% over the last decade, and is currently around 0.05%. The "fund of fund" hedge funds were invested in other hedge funds, and so provide diversification benefits.

According to Buffett's investor letter, as of the end of 2016, the collective annual returns on the hedge funds chosen by his co-bettor has been 2.2%. By comparison, the Vanguard S&P Index Fund has returned 7.1% annually. So $1 million invested in the hedge funds – the product of presumably the brightest minds in the industry - would have returned a bit more than $200,000. The same investment in the S&P 500 would have returned about $850,000. This latter fund just chooses its investments by buying whatever stocks happen to be in the S&P 500, and not selling them unless they are removed from the S&P 500. Buffett appears likely to not just win the bet, but to do so by a large margin.

The more I look at personal finance issues, the more I see this kind of scenario playing out over and over. I see people with variable annuities that pay fees that are hard to even compute (and you can bet the fees are high if they are hard to find). I see people invested in mutual funds that pay their brokers large fees, but have lower returns for the investor as a direct result. Financial professionals can have a positive impact on your financial life, and when they do so they are well worth the money. Unfortunately, investors often have a hard time determining in what capacity a financial professional can be helpful. Markets are not completely "efficient" as finance academics once argued. This means that there are some who can beat the market consistently (see, for example, Warren Buffett himself). However, the fees that correspond to that proficiency usually overshadow the benefit. For example, even Warren Buffet's investment company hasn't outperformed the S&P 500 over the last decade. Assistance with the construction of a simple portfolio, with low costs and corresponding to the investor's risk preferences, is most likely to be worth the cost of employing an investment professional. Once established, the occasional (but not too-frequent) checkup to re-balance and revisit previous

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[5] The details of the bet, and the reasoning provided by those taking both sides of the bet, can be seen at http://longbets.org/362/

choices is merited and worth consulting an investment professional. But hiring a professional to "beat the market" is far less likely to succeed, and may simply end up enhancing the finance professional's portfolio rather than your own.

About Us

Madison Financial Research, LLC (MFR) is a registered Investment Adviser.[6] Jason Fink provides all of the investment advising offered by MFR. Dr. Fink has a PhD in Economics from the University of Virginia, and is a Professor and Wachovia Securities Faculty Fellow at James Madison University. He has over two decades of industry and academic experience, including previous positions at First Union Capital Markets, Fannie Mae, the University of Virginia and Florida State University.

What is Madison Financial Research?

MFR exists to provide *unbiased* answers to any financial questions its clients might have, and any help that its clients might need. We are comfortable working with a wide range of clients. For example, we are happy to explain the process of constructing an inexpensive and effective portfolio to novice investors, and to walk them through this process. We want to help you become comfortable with and understand your investments - not leave you mystified by them.

In the finance industry, almost all the people an individual can go to for advice have something they are trying to sell. A bank tells you why you need a mortgage. A financial adviser tells you why you should buy an annuity. An insurance agent tells you why their insurance product is ideal.

We are designed differently. We have nothing to sell but our time, which we use to convey knowledge to you. Whatever financial questions you might have, we will work to provide a solution.

These questions can be simple –

> "Is a particular mutual fund a good investment?"
> "Can you help me get started in understanding online brokerages?"
> "Is purchasing this particular annuity a good idea?"
> "Is my financial adviser charging me a lot for what he or she is providing?"

They can be complicated –

> "When can I retire, and how can I optimally construct my portfolio?"
> "Can you provide an overall assessment of my portfolio, including insurance, 401 (k), and other major holdings? How can I improve my approach? Should I diversify internationally?

We have the expertise to handle virtually any financial question, and the patience and teaching experience to provide understandable and actionable answers and guidance to novice investors. And outside of our time, *we have no products to sell* - our advice is unburdened by an alternate agenda.

As an investment adviser, we have a fiduciary responsibility to put our clients first. Investment brokers, insurance agents, mortgage lenders – *none of these have such an obligation to you*. We do, and we embrace it.

The financial world is complex. We can simplify it.

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