The Type 2 Investor

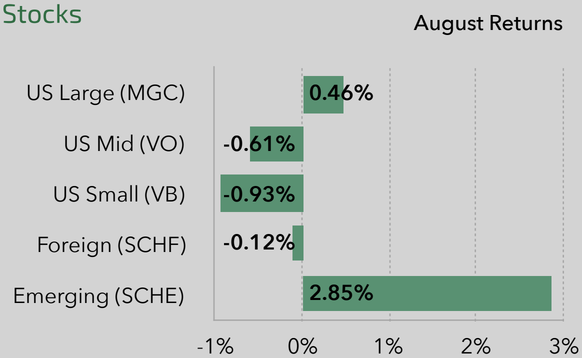
September 7, 2017

August 2017

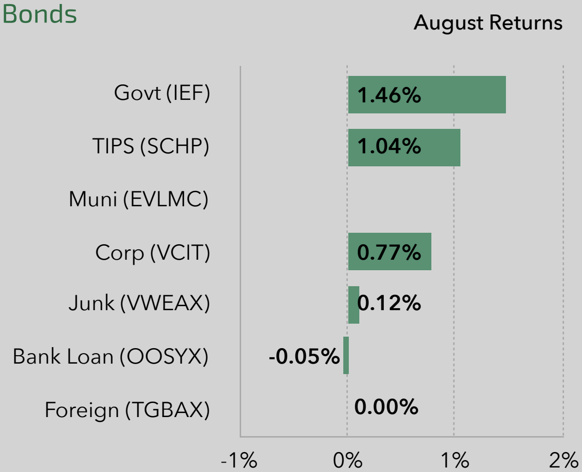
Economic Data

- A lower-than-expected 156,000 jobs were added in August, but strength in manufacturing jobs was a positive; the unemployment rate ticked up one-tenth to 4.4%
- Existing home sales, new home sales, and housing starts all missed the mark in July, signaling weakness in the housing market
- Year-over-year inflation (CPI) ticked up to 1.7% in July, matching the core rate (ex-food & energy)
- The consumer pumped some new life into retail sales, which were up 0.6% in July

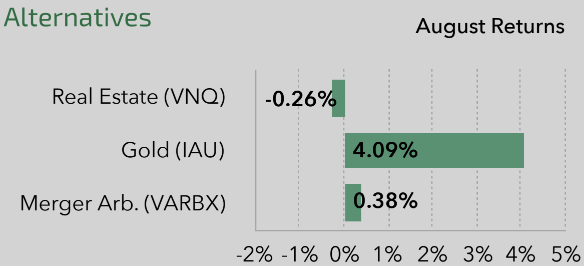
Stocks



Bonds



Alternatives



Performance data provided by Morningstar.

The brain uses two systems to process information. The first type is intuitive but lazy, rapidly forming judgements with no conscious input. The second system is slow, reflective, and is not guided by emotions. It is that second system – type 2 – that we want in control of our investment portfolios.

The Intern

When I was in college at Michigan Tech, I was part of the Applied Portfolio Management Program (APMP), which was a student-managed investment portfolio made up of funds from donors. It was *real* money being managed by *real* college students, and the results were surprisingly not terrible. They were really good, actually. A couple years ago I was invited to join the board so the program could benefit from my knowledge and experience and, presumably, large donation checks that disappointingly have yet to materialize.

Following February's APMP board meeting, Jason, one of the students, asked if I had any internship opportunities for the summer. Jason was not the traditional APMP student. He spent four years serving his country and traveling the world as a machine gunner in the Marine Corp. Upon returning home, he met his wife, settled down, and brought three wonderful children into the world. He has earned a B.S. and a M.S. in mathematics and teaches at Michigan Tech. His goal now is to use those math skills to become a proficient financial analyst (and dominant fantasy football player).

I told him that any internship with me would be very unorganized, unstructured, unpaid, and objectively advised him against it. He didn't listen, and so has spent this summer working with me. One of the assignments he was given was to write a piece for this newsletter on a topic of his choosing, which follows in the next section.

The topic is oil, which I wrote in length about at the beginning of last year here and here, and the related topic of peak auto here. Since early 2016, oil has remained relatively range bound and as such has had a diminished impact on the overall market. But in the wake of the disruption caused by hurricane Harvey in Texas and with Irma knocking on our door, oil and gas is back in the spotlight.

Jason and I have differing views on the future of automobiles and oil. I think automobile ownership will decline overall, and that electric cars will gain market share much faster than he does. Thus I also believe that oil demand will peak in the next decade, whereas as he thinks the more commonly held view of 2040 or beyond is more likely. It is likely my urban perspective and his rural perspective are distorting our respective viewpoints, and reality ends up being somewhere in between. We also have different views on the equity markets, where he sees them going higher and I am less sanguine.

He asked me why I would publish something that I might not totally agree with, but I assured him that was what I hoped he would bring to the table during his internship. He challenged some of my viewpoints and providing counterarguments to my assertions. So with that, I thank Jason for his valuable contributions during this past summer and turn the rest of this newsletter over to him.

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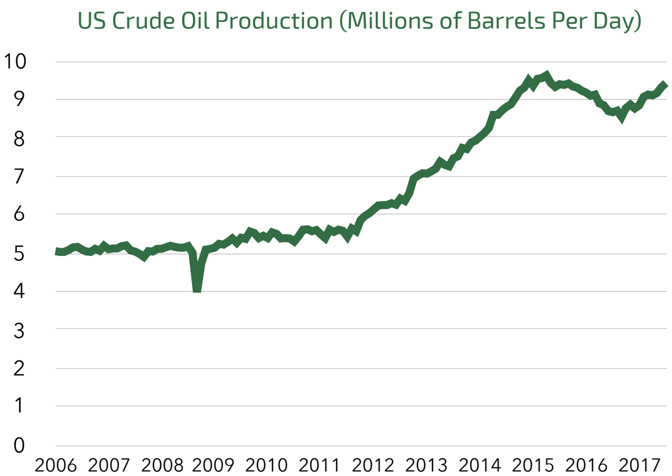
Reading the Texas Tea Leaves

Few things have the ability to depress me more than listening to old time country music. While the slow, twanging sounds are enough to drive me nuts, it's really the lyrics that get me down the most. You might be thinking of your favorite country song where some guy loses his wife, his truck, and his hound dog all while drinking Jack Daniels out in the rain. I, however, find the lyrics of "Small Town Saturday Night" equally depressing when Hal Ketchum says he's going to "Put a dollar's worth of gas in my pickup truck," and then proceeds to cruise around all night. At the time the song was written, gas was around \$0.30/gallon, so a dollar could get you a few gallons. Today, the national average is more than two dollars higher at around \$2.46/gallon, and while I would love to complain, as a driver I am actually thrilled the price has come down from its \$4.11 highs in 2008. So gas prices change. Outside of making old country songs depressing, why should we care? If we do care, how can we figure out where the price could go in the future?

It is easy to answer the first question. We should care about the price of gas, or really the price of crude oil, the commodity gasoline is derived from, because few things have a broader impact on the US and global markets. Aside from gasoline, crude oil is also used to build roads, heat homes, fuel jets, fertilize crops, produce chemicals, and make countless different things out of plastics. It is near impossible to think of a business that is not somehow affected by the price of oil and thus changes in the price of oil can have significant consequences on global economies. In the last 50 years there have been several cases where a significant change in the price of crude has led to economic recession or even regime change.

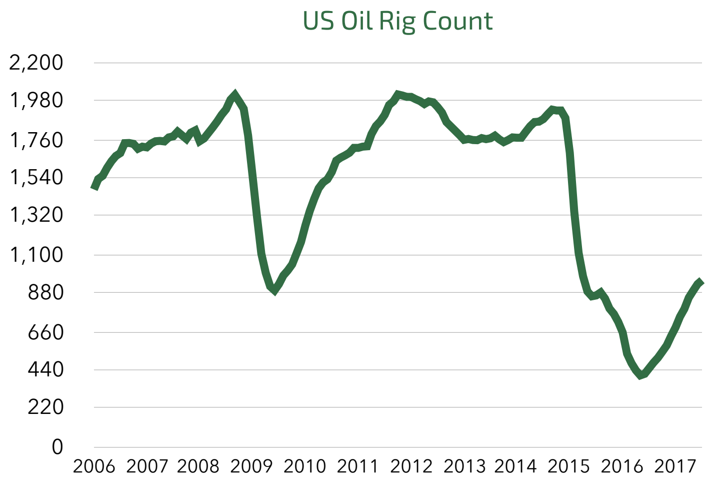
So what moves the price of crude? While demand, geopolitics, and speculation are factors, it is really the dramatic change in global supply due to US fracking that is currently the major driving force. According to data from the U.S. Energy Information Administration (EIA), in 2006, the US was producing 5.09 million barrels of oil per day. By 2016, that number was 8.85 million barrels and the US had accounted for over 50% of global growth in production over the decade. Supply outpaced demand, and the price of oil responded falling from the highs of \$150 per barrel down to a current price of around \$47 a barrel.



Source: EIA

Certain events, like Hurricane Harvey which just devastated the gulf coast, can have short-term impacts on the price of oil. However, these transitory events won't change the true nature of the state of supply and demand enough to affect the long term price of oil.

Based on EIA data, Saudi Arabia, the United States, and Russia account for almost 40% of total world oil production. The next largest producers, Canada, China, Iran, and Iraq each account for less than 5%. Although the US has grown oil production because of fracking, the drastic crash in the price of crude forced many companies to shut down less efficient rigs. Accordingly to the rig count provided by Baker Hughes, in 2014, the US averaged 1,862 active rigs. In July 2017 the US had only 835 active rigs. If some unexpected event caused supply to drop and push prices higher, the US could presumably more than double their current rig count increasing production to compensate.



Source: Baker Hughes

What about Saudi Arabia? In the past, we have seen Saudi Arabia open the faucets and flood the oil market. They do this to crash the price of oil in order to bankrupt competitors. Saudi Arabia has the world's cheapest oil as they can produce oil at a cost of less than \$10 per barrel. Once out of business, Saudi Arabia is free to scale back production and watch as the price of oil soars in a less competitive market. Many experts think this is exactly what Saudi Arabia tried to do in 2014 in an attempt to put US frackers out of business. US fracking, however, did not shut down but instead became more efficient takings its own production costs down from \$60 per barrel to an average cost of \$23.35 per barrel in 2016, according to Rystad Energy and The Wall Street Journal.

Binge Box

Last Man Standing

I've been on a sitcom binge the last month or so, and one of my favorites to watch has been Tim Allen's *Last Man Standing*. The story is about Mike Baxter (Tim Allen), a man who is trying to maintain his manhood in a house full of women, and the comedy is well-executed. It's a much different show than *Home Improvement* was, but fans of that will get a kick out of the occasional and sometimes subtle tributes *Last Man Standing* pays to it, as well as other Tim Allen works. I even enjoy all the bad puns Mike's wife, Vanessa (Nancy Travis), frequently makes despite no positive reaction from her family. It successfully avoids political correctness, which I find refreshing. Sadly, the conservative political views are rumored to be behind the well-rated show's controversial canceling. Watch on Netflix until September 30 and Hulu after that.

What about a dramatic increase in demand? According to the "BP Statistical Review of World Energy", the two biggest oil consumers are the US (19.6 million barrels per day) and China (15.6 million barrels a day). Growth in oil demand is strongly correlated to the growth of the overall economy. Thus, increases to the forecasted GDPs of these areas could signal stronger demand. However, if we view an increase in GDP of 1% as significant, we can see that while this could lead to a short term pop, this would not overshadow the supply glut we just discussed. The other demand consideration is that the global trend has been away from fossil fuels and into renewable energies, and, while I believe the forecasted conversion rates to these energy sources are sometimes a little aggressive, the fact remains that these are headwinds to the price of oil and only reinforce our forecast for lower oil prices for a longer period of time.

So, now that we have our range what do we do with it? An oil futures trader might sell oil when it is above $50 and buy oil when the price is below $40, but oil futures traders we are not. Instead, we use the range to make better forecasts about the broader economy. Lower for longer oil prices will be a headwind to inflation which could lead to fewer rate hikes from the Fed. The net result is a slow growth environment with just enough worry and fear to lead to an extended grind higher in the market.

The bottom line: stay invested in the market, ignore OPEC, don't fret international incidents, and don't be scared to buy that F250 Super Duty. It may cost you more than a dollar, but you should still be able to afford to cruise around all night in it.

-Jason Gregersen

Tactical Asset Allocation

Asset Class	Heavy Under-weight	Under-weight	Neutral	Over-weight	Heavy Over-weight
Cash				●	
Fixed Income		●			
Core Domestic		●			
TIPS				●	
US High Yield	●				
Bank Loans				●	
Foreign Bonds			●		
Equities		●			
Large Cap		●			
Mid Cap		●			
Small Cap	●				
Developed Intl.		●			
Emerging			●		
Alternatives				●	
Real Estate		●			
Commodities					●
Hedging					●

About EmeraldSpark

EmeraldSpark Investments, LLC is a Registered Investment Adviser based in Chicago, IL. We were founded by Ryan P. Layton, CFA in 2015 to provide personalized financial planning and fiduciary investment management services to select individuals. Our investment process blends the foundations of Modern Portfolio Theory with the latest research in the field of behavioral finance. We specialize in asset allocation and investment due diligence to help provide our clients with investment strategies personalized to match their specific goals and risk comfort zone.