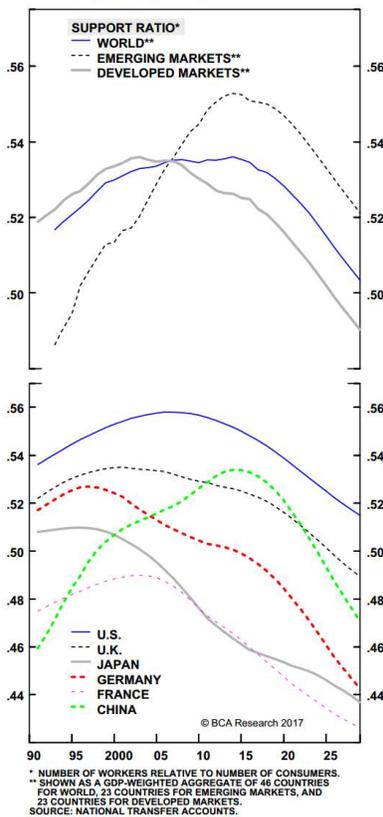


### Global Economic Thoughts and Reflections

#### Interest Rates and Fed

We may have reached the saturation point on this topic with multiple opinions floating around all claiming to know what the next phase in this process will look and feel like. Actually, no one really knows. We are in the process of exiting an unprecedented period of easy monetary policy around the globe. A time when equity prices have reached record levels despite a backdrop of low growth. A time when we have become more comfortable with central bank balance sheets being measured in the trillions of dollars. So as we exit, interest rates rise and balance sheets shrink and inflation rises. What could go wrong, right? Well, it turns out a lot. This quarter we examine the role market expectations play in ensuring this is a smooth transition, the relationship between interest rates, inflation, unemployment and global central bank actions. And we'll offer a few thoughts on the next Fed Chair.

The Ratio Of Workers To Consumers Has Peaked



The Federal Reserve's actions effect the markets in many ways, but recall that it has two goals: maximize employment and achieve stable prices. After the market correction in 2008, they initiated a bond buying program that stabilized prices and greatly reduced risk premiums. Given the great support the Fed's actions have had on markets, one should not assume that the unwinding of this process won't disrupt the markets. This is where we think the market has it wrong.

#### Finding the Neutral Rate

Ultimately, the Fed is on the hunt for a level of equilibrium known as the neutral rate. The goldilocks level of interest rates when rates are not too high that they dampen growth and not so low that they create inflation. Frankly, this is an academic exercise at best. If the neutral rate could be found and maintained, then there would be no booms or busts. The economy would always be in some state of steady growth.

With workers retiring and depending on government services and pension payments, this will raise the deficit and lead to higher neutral rates. We think this is the direction we are heading. (Chart: The Ratio of Works To Consumers Has Peaked) The issue at hand is if there is enough footing in the US economy to keep growing

long enough for the Fed to raise rates high enough. That is a tenuous balancing act that the Fed really is not in control of. The business cycle can't be engineered. History tells us that much is true.

## Expectations versus Experience

At last month's meeting of the Federal Reserve Board, the majority indicated they anticipate a rate increase this December. That will make three this year. The Fed is also forecasting three rate hikes next year and bringing an end to hikes when it realizes 2.75%. This is their idea of the neutral rate. If they can follow along the path they have communicated, and the market can adjust to these expectations, it could be a smooth ride until growth slows in 2019. However, the Fed is also forecasting inflation below their 2% target until 2019 while they make these maneuvers. If that data point proves to be a miscalculation, that will result in the neutral nominal rate rising faster than the neutral real rate.

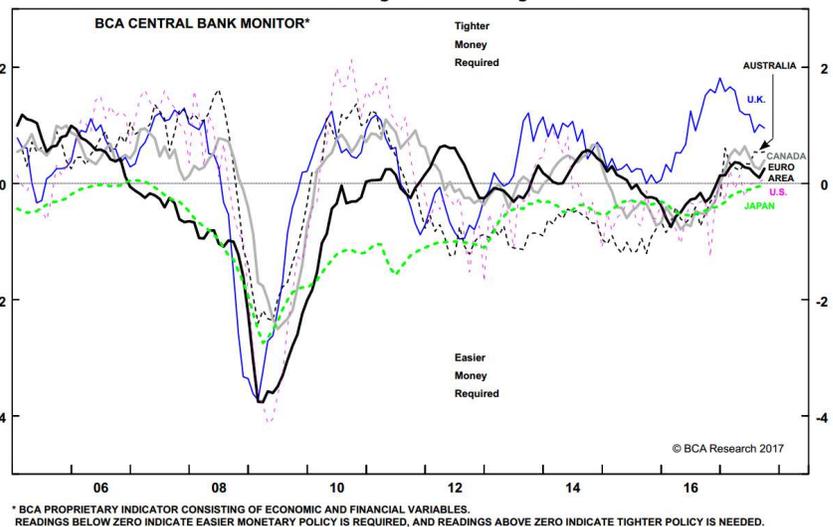
The reductions in the balance sheet have also been communicated. Starting in October, we will see a run-off of \$6B in US Treasuries and \$4B in Mortgage Backed Securities. Since the current US Federal Reserve balance sheet stands at \$4.4T, that run-off equates to 0.25% per year. If that sounds like a snail's pace, it is. To contrast, the European Central Bank holds approximately \$5.1T and this has grown by 28% over the last twelve months.

Currently there is \$114B in new quantitative easing (QE) each month. This is combining the actions of the European Central Bank, Swiss Bank and Bank of Japan. To put that in perspective, in 2009 the monthly rate in the US alone was \$112B in 2009. Indications around the globe demonstrate that after years of easy monetary policy, economies have stabilized and grown to the point where tighter measures and higher rates are needed. (Chart: Our Central Bank Monitors Point to Growing Pressures to Tighten)

It's no surprise that the building up of balance sheets on the scale we've seen has distorted the markets' view of risk. When central banks step in and buy bonds on the open market the price they're willing to pay is more motivated by the act of acquisition itself rather than the risk-reward analysis. Since the ECB is still in accumulation phase, we can look at the corporate bond securities they hold and see that 20% of them are held at negative nominal yields. Further,

spreads have compressed from 153 basis points to 95. You may ask, why does this matter? Actions like this set a false level of interest rates. If it supports the market prices on the way up, we warn of the symmetrical relationship to come when the support is gone and prices are falling.

Our Central Bank Monitors Point To Growing Pressures To Tighten

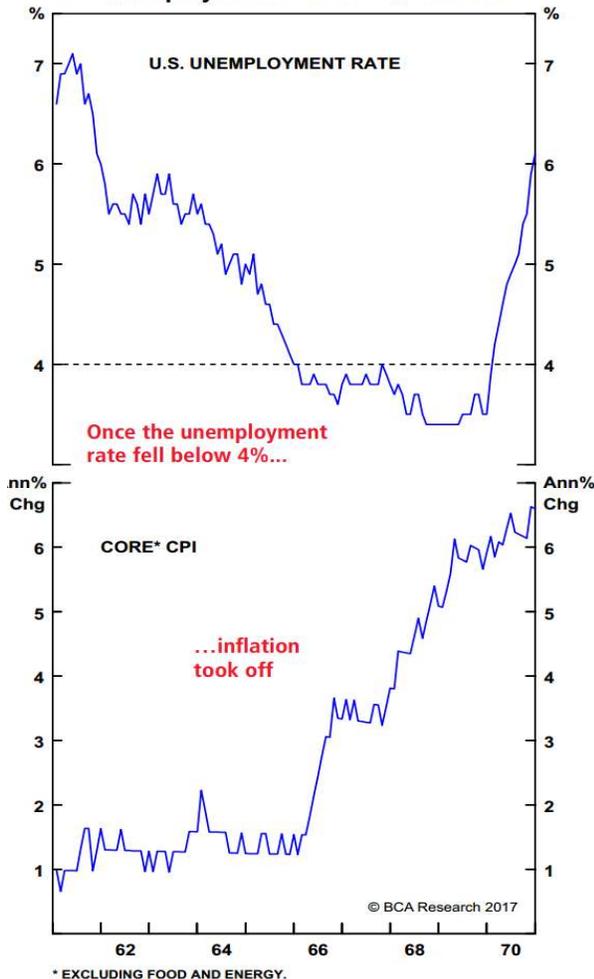


When market participants exit and fundamentals come into play again, this will bring stress to the markets. The ECB will exit as they eventually shift to a tighter monetary policy. The prop desks that have shrunk due to Graham-Dodd regulation won't be there with the bids. The pension funds will start selling bonds to meet unfunded pension liabilities for the growing number of retirees. We see a potential liquidity crash coming. How low will bond prices go before they'll attract a buyer? Rates will rise on the side of that and we think they will need to rise higher than the current calm market and rhetoric suggest.

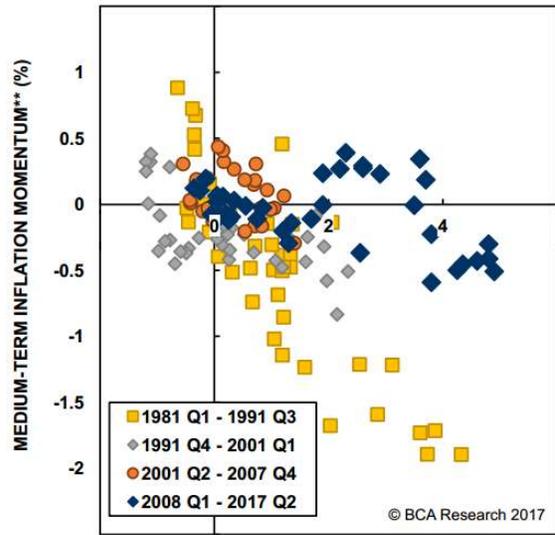
**Historic Relationship Reemerges**

As we mentioned, one of the goals of the Federal Reserve when setting monetary policy is to maximize employment. In this regard, the Fed is doing quite well with the current unemployment rate of 4.2%. Since we have doubt about the benign inflation forecast, we reviewed the relationship between unemployment and inflation. This is known as the Phillips Curve model. It concludes that

**Inflation In The 1960s Took Off Once The Unemployment Rate Fell Below 4%**



**The Phillips Curve Has Gotten Flatter**



\* DIFFERENCE BETWEEN THE UNEMPLOYMENT RATE AND THE LONG-TERM NAIRU. SOURCE: THE FEDERAL RESERVE, BUREAU OF LABOR STATISTICS (BLS), AND BUREAU OF ECONOMIC ANALYSIS (BEA).  
 \*\* YEAR-OVER-YEAR CHANGE IN THE 2-YEAR ANNUALIZED RATE OF CHANGE OF CORE PCE INFLATION, WHICH EXCLUDES FOOD AND ENERGY.

when unemployment reaches a certain low level, it will pressure inflation to rise. Data supports that when unemployment falls to below 4% then core inflation accelerates. (Chart: Inflation in the 1960's...) Essentially, this is what we saw in the 1960's very clearly. Unemployment bottomed and then spiked, taking inflation with it.

Unemployment can remain depressed for quite some time with high inflation. They aren't predictors of one another, but rather we see the current unemployment rate pressuring inflation. Also, note that the economy can continue growing with rising inflation, but this will push a central bank into action to raise rates. That result is what

works to pressure the employment and growth picture.

Last quarter we discussed the series of events that fall in line when unemployment rises essentially making it very difficult for it to rise slowly in a controlled manner. Consumer sentiment and business spending fall and then build negative momentum as unemployment increases. This can feed on itself and bring the economy into a contraction with great speed.

### Inflation is Lurking

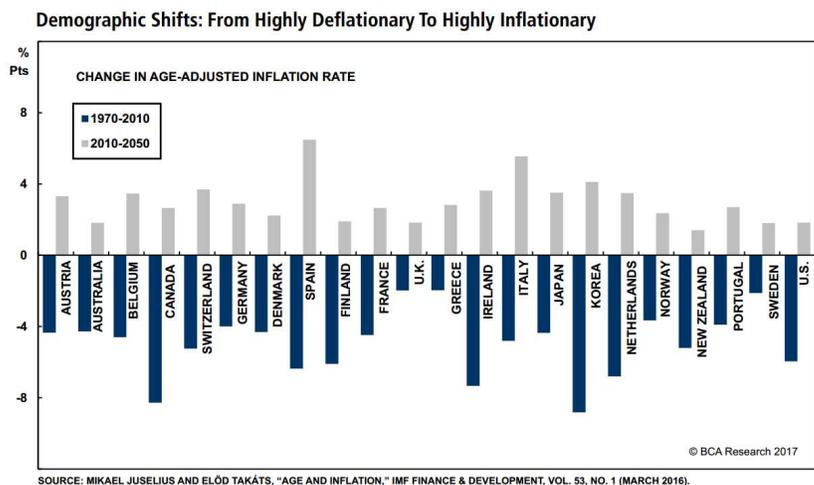
We have been in a low-inflation environment since 2008 and we know inflation will rise from here. If inflation exceeds the Fed’s long-term target of 2%, then we could see adverse market reactions as the rate of interest rate increases will need to accelerate faster than currently being communicated.

We’ve discussed in past reports the role demographics will play on inflation. The US is not alone in these shifts. (Chart: Demographic Shifts) Once inflation is on the rise, the desire to use it as a way to decrease debt liabilities could come into play. Recall the large trillion dollar balance sheets we mentioned? The weight of those liabilities could be significant enough to let inflation run.

We can see a scenario after the next recession that rates won’t need to be cut to such a degree as in 2008. A primary reason is that the neutral rate will have risen. Rates will just need to be kept below the neutral level to spur growth. This will partner well with a higher inflation rate.

### Our Next Chairman

Janet Yellen, the current Fed Chair, will see her term expire in January. While President Trump could renew her for another term, that appears unlikely to us. The Chairman is and needs to be independent of the Administration, but also maintain a good working relationship. Due in part to Chair Yellen and Trump’s reportedly rocky relationship and their contrasting views on the future of financial regulation, we don’t think either would elect to continue. It is worth noting that Chair Yellen could remain on the Board as a member after January.



We looked at the historical performance of each Chair’s contributions during their tenure and found mixed results no matter their background and skillset. Inflation levels spiked under Martin and Burns. Unemployment spiked under Volcker and Bernanke. Investors benefited the most under Bernanke and Yellen (Chart: Fed Chairs And Market Returns) All this to say, the record of any Fed Chairman is hugely a function of the economic environment they serve in.

## Fed Chairs And Market Returns

	TERM OF OFFICE			REAL EQUITY RETURNS	REAL BOND RETURNS
	START	END	YEARS	% ANNUALIZED	
William M Martin	4/2/1951	2/1/1970	18.8	9.5	-1.8
Arthur Burns	2/1/1970	1/31/1978	8.0	-1.9	-1.2
G. William Miller	3/8/1978	8/6/1979	1.4	6.1	-6.2
Paul Volcker	8/6/1979	8/11/1987	8.0	13.9	5.9
Alan Greenspan	8/11/1987	1/31/2006	18.5	7.1	7.3
Ben Bernanke	2/1/2006	1/31/2014	8.0	4.3	3.5
Janet Yellen	2/1/2014	?	3.6	10.3	6.7

With three board seats open in addition to the Chair position up in January, we see various candidates as possibilities. Specifically, Former Fed Governor Kevin Warsh and Professor John Taylor (Stanford). We would prefer candidates with academic backgrounds, but as past track records show us, the ability to perfectly execute on the Fed’s dual mandate is nearly impossible.

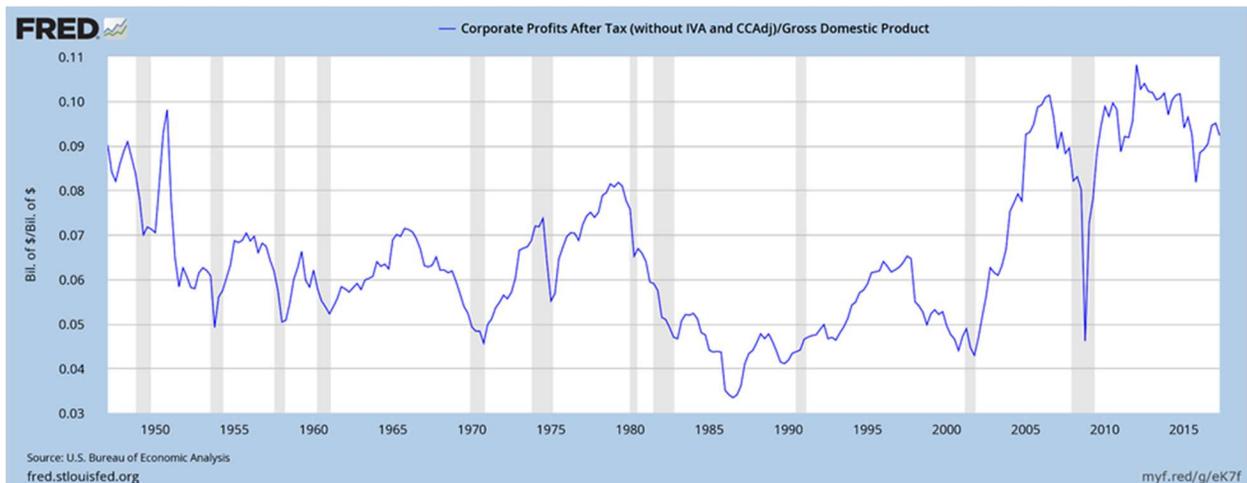
## Conclusion

Unprecedented times with unprecedented action is really just a big experiment. The belief in the idea that this will go smoothly is belief in a goldilocks scenario. We don’t believe that exists. The best thing investors can do is prepare themselves for what could be lurking on the other side. We’ve seen the build up and will not be distracted by the multiple opinions circulating that all is calm and that this global, complex economy can be engineered.

**Markets and Portfolios**

Let us state for the record that it pays to be bullish. Owning equities and bonds over the long run has proven to be productive for investors. If you can withstand long periods (a decade or so) of low or no returns as well as time-varying volatility in a particular asset, then owning risky assets collectively pays.

Consumer sentiment is hovering around all-time highs and unemployment is low. Corporate profit margins are still well above the average over the last 70 years. Tax reform, should that pass, would in fact expand after tax margins even further.



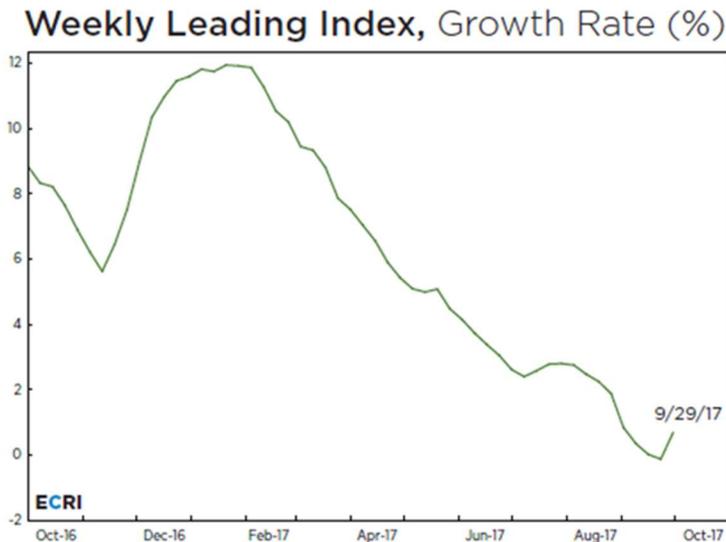
GDP real growth reached 3.0% in the second quarter as the economy continues to move forward on the back of full employment and improved economic expansion overseas.

**Going Forward**

Stock prices can be pushed up by higher earnings and/or a rising price/earnings multiple. But is that a reasonable expectation? In the short-run, who knows? Profit growth rates have been trending up since late 2015, but have fallen below the 19-quarter high of late 2016. But will it ramp up from here, or turn down?

Vital clues come from ECRI’s leading indexes. One of them is the publicly-available Weekly Leading Index, or WLI, whose growth rate is a reliable leading indicator of GRC (growth rate cycles) downturns. In essence, if WLI growth enters a cyclical downturn, U.S. economic growth is likely to do the same.

Ominously, WLI growth turned down early this year and is now at a 79-week low. Such cyclical downturns have historically telegraphed GRC downturns. That shows very clearly that economic growth is about as good as it gets, and that a fresh growth slowdown may be on the way.



We believe corporate profit growth rates are on the cusp of a downturn. We don't need ECRI to tell us this. Standard and Poor's growth rate projections have been slipping since July. Third quarter actual EPS fell short from projections as well. This is a problem because we view the path of profit growth rates, not the nominal number, central to the stock market's long-term direction. Couple this with the third or second highest valuations, depending on your methodology, and equity prices become more vulnerable not less as prices move higher.

For those that have read our past quarterly reports, it comes as no surprise that we remain underweight U.S. stocks. U.S. stocks have continued to propel forward since the election. Our goal is not about predicting short run returns with any real accuracy. This has always been a hazardous approach.

At Chasefield Capital we use a factor based methodology in our expected return models. Our original models examined over 50 factors and we ultimately choose two. Complex models introduce variance while small models introduce bias. The latter meaning the returns predicted by the model are bias based on the two factors. Why introduce this to our clients? Our parsimonious models do not predict tomorrow's, next week's or even next year's returns. They deal in terms of probability. "What's the chance you'll earn a certain compounded return over 3 to 5 years?" We are long term investors so why take a short-term approach? It is reasonable to connect the two but so often in the press as well as many financial advisors peek into what the markets did in a quarter or in a calendar year.

Humans tend to attribute good past performance to skill or a persistent edge rather than to randomness. Investors often equate ex-post success to ex-ante skill and underestimate the roll of chance in the short run. We will have more to say about this in the future!

### **What about Interest Rates?**

Again, predicting rates over the course of a short time frame is an issue. Plus, confusing short rates with long rates is a common mistake amongst investors. Quietly short rates have moved from zero two years ago to above 1%. Long rates (as measured by the 10-year treasury) are about the same.



What is more important is the real rate of return. How much you earn after inflation. Two years ago, it was about 2%. Today it is close to zero. Is this sustainable that investors will earn nothing after inflation? In the Euro area, some rates have gone negative. This means you are paying someone to own their bonds! This is the magic of quantitative easing and leaves us a bit skeptical that this a sustainable framework. The average real rate as well as a more robust measurement, the median, is approximately 2.8%. This would place the 10-year at about 4.5%. The value-at-risk in the 10-year is about a 14% loss of principal with a 200 basis point rise in rates. Tightening Fed policy and stronger economic growth suggests the days of lower rates are numbered. This could take a while as well but the risk is that inflation takes hold as these levels. Of course, the is issue when?

Inflation is the key to bond rates. Full employment and reduced a zero-output gap provides a catalyst for sustained inflation. The back drop of demographics suggests that inflation may be muted from past inflation cycles. It might not take large rise in rates to slow the economy. Other bonds such corporates and municipals move differently and may not move in unison. We never confuse short rates and long rates but are always concerned about the term structure in all bond categories.

The term structure of interest rates is the relationship between interest rates or bond yields and different terms or maturities. The term structure of interest rates is also known as a yield curve, and it plays a central role in an economy. The yield curve is different among various types of bonds.

## Portfolios

Our portfolios are structured to address this vulnerability in both equity and bond prices. Thus, for the calendar year we will lag out strategic benchmarks which we plan to publish rough estimates before the end of the year. Lagging for short periods is appropriate given low volatility and high valuations. We believe we are in good company.

A certain Midwest money manager has compiled an excellent record despite having underperformed the S&P over a third of the rolling three-year periods in the past 30 years and a fifth of the time of rolling five year intervals in the same span. We don't claim to be Warren Buffet.

## Disclosure

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