



October 2nd, 2017

A behavioral bias that will be painful to break...

Equity markets were in a celebratory mood last week as further details were released on one of the cornerstone agenda items for the Trump administration: tax reform. Given the GOP's fumbling of their intent to repeal and replace Obamacare it's fair to assume that the stakes are extremely high for them to deliver on this campaign promise. What markets are salivating over is the prospect for tax stimulus and that is what it looks like this plan boils down to – stimulus, not reform. For sure, should the final package that passes through the executive suite retain what was released in the nine-page sketch we got last week (these guys truly have been busy, progressing to a whole nine pages from a mere one page a full six months ago...) then the real-time reaction from risk assets makes sense to what ultimately will amount to a sugar rush. However, there is a lot of negotiating and lobbying that will be taking place before a realistically accurate analysis can be formed to gauge its short-term and long-term economic impacts.

The fact that this tax cut proposal is far from a final copy means very little to the day traders, machines, robo advisors, algos, and black box trading programs, as all they need to hear is “tax cuts” and it triggers their buy programs to bid up passive ETF strategies irrespective of value. What's more is that the market seems to have taken on the characteristics of a risk-less asset where any semblance of natural corrective phases are prevented before they gain any momentum. This type of risk-less environment where volatility has been crushed to historical lows has only emboldened investor confidence with complacency and excessive risk taking becoming more extreme as measured by the market positioning data, margin debt hitting all-time highs, and bullish sentiment hitting some of the highest levels on record.

While I applaud and encourage the administration's efforts to attempt to reform a tax system that is grossly past its expiration date with the way the economy and society has evolved since the last time we had tax reform back in the Reagan administration, I must admit my nervousness that they rush through a plan in the interest of checking a box on their campaign agenda rather than one that will hold up through time as making a positive impact on the U.S. economy. Lost in all the excitement by the analysts and bean counters modeling the framework of this plan is that most of them seem to be doing so on a static basis. Meaning few are accounting for laws of diminishing returns as they apply to tax stimulus at the excessive government debt levels we have today. Furthermore, the effects of tax stimulus at different stages of the business cycle, in particular the late stages of this cycle which we find ourselves in today. Additionally, what this means for monetary policy and what actions they may have to take to maintain the objectives of price stability and full employment.

The analysis I have seen from sources that I believe to be reliable indicate that this tax package would increase the fiscal deficit by \$2.2 trillion over the next decade and by as much as \$3.5 trillion when the analysis is extended out over the next twenty years. We'll just have to wait and see what the GOP fiscal

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hardliners have to say about this, but from what we've seen so far it appears that fiscal discipline plays much better when you're not in power than when you actually have to govern. Nevertheless, this stimulus isn't coming at a time when the U.S. economy is in a deep recession or when the debt-to-GDP ratio is at a comfortable 30% (preconditions for both Roosevelt and Reagan when they were readying their stimulus policies). Quite contrary are the circumstances today where we're deep into the third longest expansion in U.S. history while debt-to-GDP is running close to 80% and that's on a net basis (it's north of 100% on a gross basis).

Those figures are just on a Federal basis. When you add in the debt accumulated on households and businesses you get to a total non-financial debt-to-GDP level of 250%. The only time the U.S. total indebtedness has been higher was in the aftermath of WWII. This level of indebtedness is on par with where we were in 2007 and what we know with hindsight was that this debt wasn't serviceable back then at an average interest rate of 5%. Fortunately, interest rates are lower today than they were then, but there is no way of knowing what higher level of interest rates makes the serviceability of this outstanding debt pile problematic.

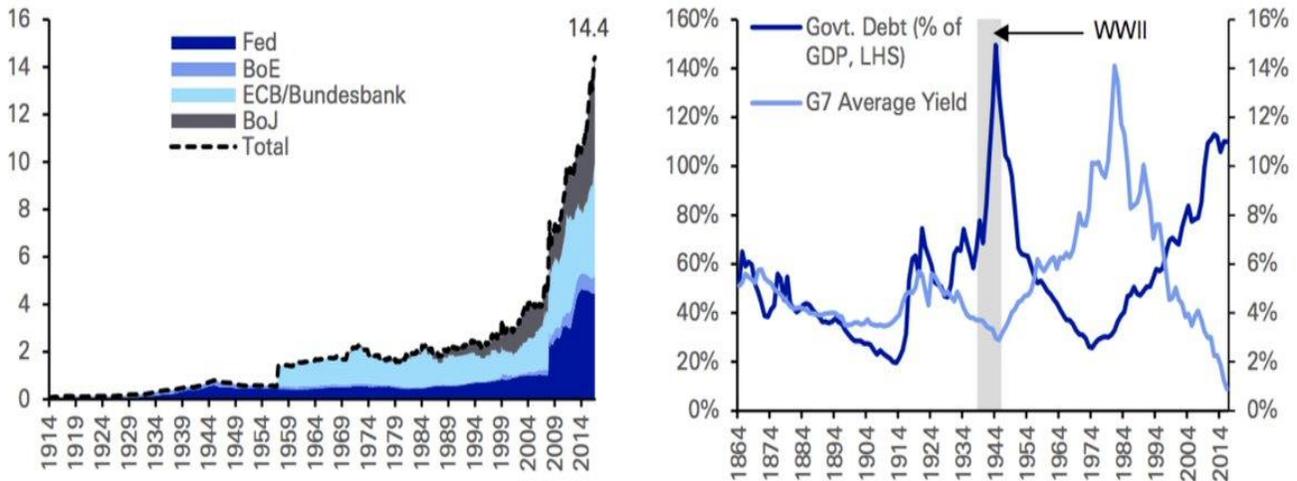
This is where the interplay between fiscal policy and monetary policy is sure to get interesting as we move forward with the Fed more determined than at any point in this expansion to normalize monetary policy. Threading this needle is not an impossibility, but given the change in tone we've observed from the Fed and some other major central banks since late June, this pivot is upon us.

In my opinion this is a change that requires a deeper level of thought and demands a longer-term view than what it means for asset prices over the next week, month, or quarter. In order to properly frame why this pivot is so important for investors to thoughtfully analyze, you have to consider where we're coming from. Take the current economic expansion as an example. What we know is that it is the third longest in history, but at the same time it is also the weakest economic expansion in terms of growth in the post-WWII era. So, what this expansion has lacked in amplitude it has made up for in duration. But when you dig a bit deeper and peel back the onion it unearths some unease – not in terms of questioning the existence of the expansion, but in terms of questioning the sustainability of where we are and the best path forward.

At the start of 2008, U.S. GDP was \$14.7 trillion and total Federal Debt was \$9.2 trillion and as we're all well aware, in 2008 the GFC took hold and set off the worst economic contraction since the Great Depression. This was a crisis that legitimately threatened the solvency of the financial system and required decisive action from the Federal Reserve and U.S. Government to step in and do whatever was necessary to stop the system from collapse. Step in they did, and eventually by the Spring of 2009 their efforts succeeded in stabilizing the system.

So, here we are nearly ten years later and while we remain in an ongoing economic recovery the Fed and other global central banks are still implementing monetary policy at a level beyond what was initially prescribed during the height of the GFC. Deutsche Bank recently penned a piece putting some of this madness into context where they tabulate more than \$10 trillion has been added to the balance sheets of the four largest central banks since the financial crisis. They then took their analysis a step further and tallied up the increase in the cumulative government budget deficits of the U.S., U.K., Japan, and the Eurozone since 2008 which when combined with QE sum to \$34 trillion in monetary and fiscal stimulus.

Figure 5: Central Banks Assets inflation adjusted to June 2017 price levels (left) and G7 Government Debt (% of GDP) with Average G7 10Y Government Bond Yield (right)



Source: Deutsche Bank, Global Financial Data, Haver, official websites of Central banks

As you see on the right-hand side of the above charts the result is government debt as a % of GDP has increased to the highest level ever outside of the period during WWII. Providing cover for this indulgent debt level is a global interest rate backdrop that at this time last year reached the lowest levels in recorded history.

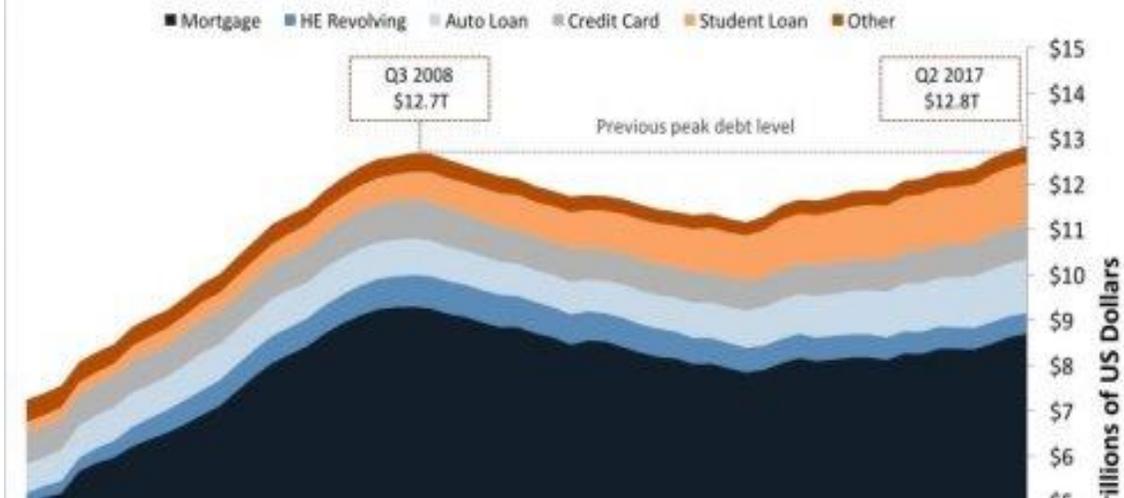
Circling back to the U.S., where GDP as of the end of 2016 was \$18.9 trillion and Total Federal Debt was just below \$20 trillion. So, when one does the math on this recovery from 2008 through 2016 you get almost \$4.2 trillion in additional GDP with an additional \$10.8 trillion in Federal Debt. The table below details the year by year look of this accounting where new government debt has increased by an annualized rate of 7.45% of GDP over this time. Where would the economy be without this level of debt accumulation?

	A	B	C	D	E	F
1	FRED Graph Observations					
2	Federal Reserve Economic Data					
3	Federal Reserve Bank of St. Louis					
4	GFDEBTN	Federal Debt: Total Public Debt, Millions of Dollars, Annual, Not Seasonally Adjusted				
5	GDP	Gross Domestic Product, Billions of Dollars, Annual, Seasonally Adjusted Annual Rate				
6						
7						
8				Annual	Annual	New Treasury
9	Frequency: Annual			Change	Change	Debt A Percent
10	observation_date	Federal Debt:	GDP	In Debt	In GDP	Of GDP
11	2007-01-01	9,229,172	14,685,300			
12	2008-01-01	10,699,805	14,549,900	1,470,633	-135,400	10.11%
13	2009-01-01	12,311,349	14,566,500	1,611,544	16,600	11.06%
14	2010-01-01	14,025,215	15,230,200	1,713,866	663,700	11.25%
15	2011-01-01	15,222,940	15,785,300	1,197,725	555,100	7.59%
16	2012-01-01	16,432,730	16,297,300	1,209,790	512,000	7.42%
17	2013-01-01	17,156,119	16,999,900	723,389	702,600	4.26%
18	2014-01-01	18,141,444	17,735,900	985,325	736,000	5.56%
19	2015-01-01	18,922,179	18,287,200	780,735	551,300	4.27%
20	2016-01-01	19,976,827	18,905,500	1,054,648	618,300	5.58%
21					AVERAGE ANNUAL->	7.45%

However, the debt binge isn't isolated solely to the Federal government as both households and corporations have actively participated in the game with both at all-time highs:

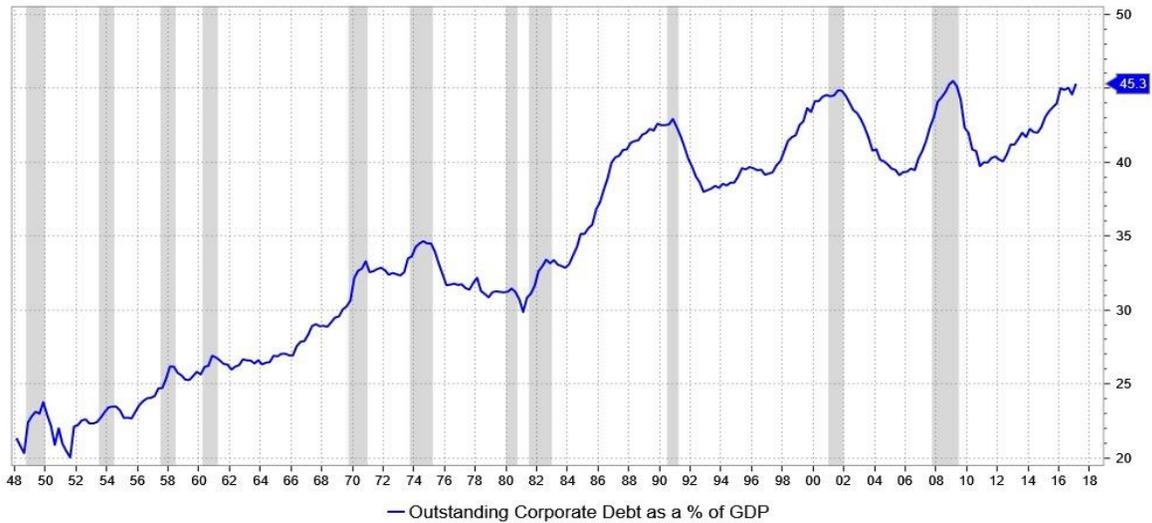
Household Debt:

Total Debt Balance And Composition, US



Corporate Debt Outstanding as % of GDP

Corporate Debt Outstanding as % GDP
(US recessions shaded)



Federal Reserve, Flow of Funds

Where am I going with this and why does it matter? After all it's not as though excessive indebtedness has stopped global asset prices from continuing to push to new all-time highs. It's not as though this is new information for a market that is believed to discount all available data at any point in time, right? Because, I think we're finally getting to the point where this backdrop will matter as the Federal Reserve, starting in Q4, will for the first time this cycle begin to decrease the size of its balance sheet.

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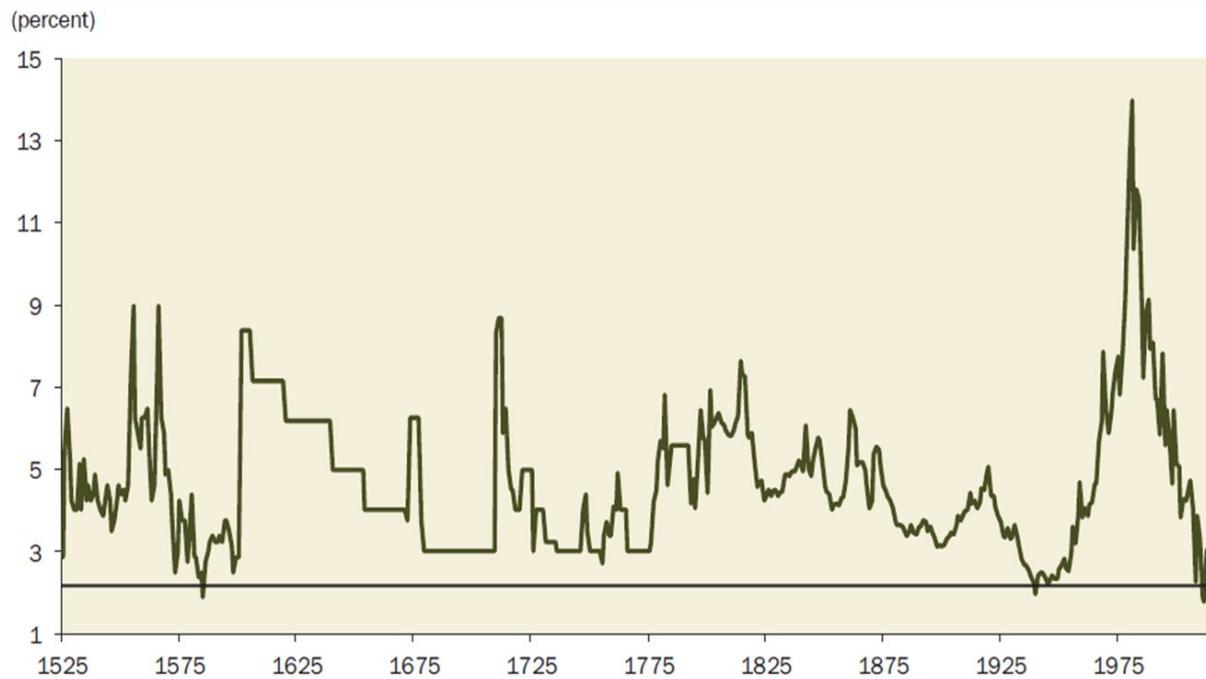
Since the GFC it's been the Federal Reserve that has been the enabler of the levitation in the nominal value of equities (really of all asset prices). Back in 2010 former Fed Chair Ben Bernanke penned an Op-Ed in the Washington Post explaining that QE was geared towards creating a wealth effect via higher asset prices. It was as recently as January that former Fed member Richard Fisher (one of the more intellectually honest and candid Fed members) said, "we frontloaded a tremendous market rally in order to create a wealth effect." Based upon the chart below from MI2's Julian Brigden which plots the Value Line Geometric Index (a better proxy for the overall stock market because it encompasses 1,700 stocks equally weighted versus the smaller number of constituents in the DJIA or S&P 500 which are both market cap weighted) versus the size of the Fed's balance sheet over the past 10 years, what you see is that the two lines correlate very closely with each other where once the Fed stopped increasing the size of its balance sheet back in October 2014 the appreciation in this broad based equity index also stopped.

Can the Fed Successfully Shrink Its Balance Sheet?



It's not just equity markets that have been the beneficiary of global monetary policy as credit investors have mutually shared in this asymmetric risk / reward setup. Not only have global interest rates succumbed to all-time lows (see chart below), but credit spreads are within a whisker of all-time lows.

Historic Global Interest Rates



Notes:

Source: Homer & Sylla's "A History of Interest Rates", Shiller's "Irrational Exuberance", Gluskin Sheff

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So, here we are at the height of asset price nirvana – house prices back to all-time highs, stocks at all-time highs, bonds at all-time highs – where the Fed can put their flag in the ground and claim victory given they've achieved their goal of elevating asset prices, right? Well, yes and no. You see what has happened along the way is that while they've successfully reflated asset prices it has done very little to assist the overall growth profile of the U.S. economy. A simple example where this disconnect is perhaps most obvious is in the labor data. The one thing this economy has had very little trouble doing throughout the duration of this expansion is turning out new jobs. However, once again the devil is in the details. According to the BLS data it shows that 121,875,000 people had full-time jobs in November of 2007, whereas almost 10 years later there are 125,755,000 people with full-time jobs (data as of August 2017). This is an additional 3,880,000 jobs over the last decade relative to an increase in the population of 23 million.

There are a myriad of other economic data points that illustrate the disconnect in this economic recovery relative to past recoveries, but I want to maintain the focus on asset prices and how disjointed they've become from fundamental reality.

The prevailing narrative you hear on bubblevision nowadays is how for the first time since this expansion started we are witnessing synchronized global economic growth. This observation is 100% accurate, and I've been of the view coming into this year that global equity markets offered a more favorable investment opportunity than U.S. markets. However, where I do push back on this narrative is the driving force behind this global synchronized growth profile – it's largely the result of the most robust expansion of central bank balance sheets during this entire economic expansion.

Already in 2017 global central banks have purchased \$2 trillion in financial assets and with the ECB and BOJ running negative interest rate policy (NIRP), it has elicited a global search for income and even though global growth is expanding, much of this money printing is finding its way into capital markets. But with the strengthening in the economic footprint around the world it is bringing about this moment of 'be careful what you wish for'. What I mean by this is that throughout this expansion the Federal Reserve has looked through pockets of economic strength in the interest of wanting to be sure in the sustainability and broadening out of this recovery. Time and time again the economic data would heat up ever so slightly to only then slow back down after a few quarters of above trend growth – it was 2 steps forward, 1 ½ steps back. Every time we went through these soft patches the Fed would initiate another episode of QE or, like the most recent example in 2016, they would walk back their guidance on upcoming monetary tightening.

As a result, investors and markets have become quite conditioned to expect that anytime the economy stumbled the Fed and global central banks would come to the rescue. This conditional response which has worked so well for the last ten years is now at risk with the economic backdrop stable enough and potential fiscal policy coming down the line for the Fed to remain more anchored in its retreat from crisis era monetary policy.

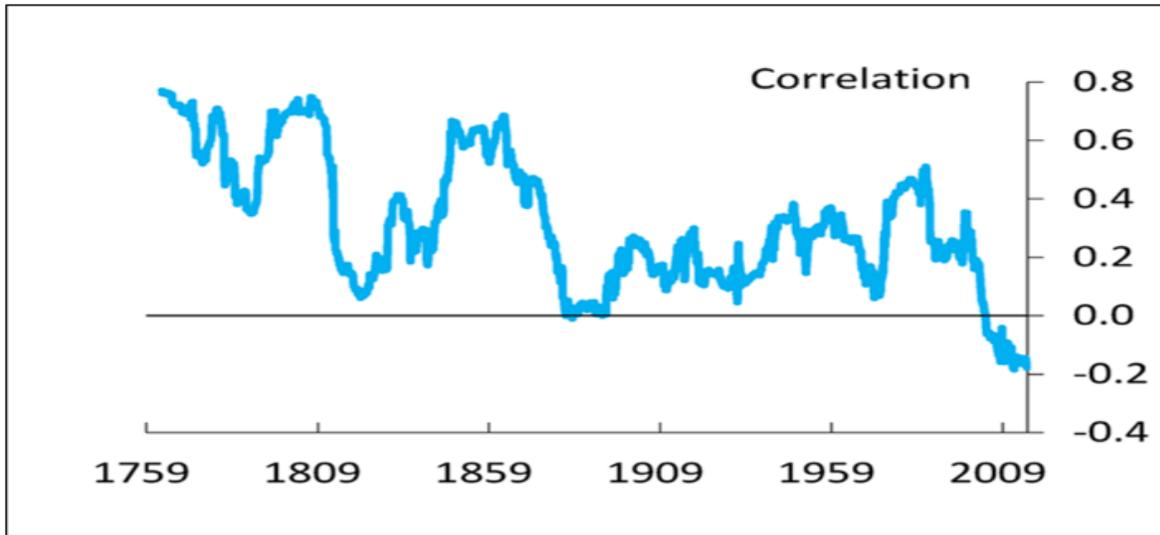
Unfortunately, the late comers and short-sighted return chasers are piling into risk assets at one of the worst risk / reward setups in history (across a broad array of asset classes) while imprudently being too dismissive of the evolving view of a Federal Reserve that appears to be more resolute in tightening financial conditions.

It's not hard to see why this conditioned response by investors to buy risk assets at any price has become so imbedded in financial markets. This was a precedent that began in the late 90's with the bailout of the hedge fund Long Term Capital Management due to their fear then that it posed a potential systemic risk to the system. Fast forward and the Fed came to the rescue following the popping of the Tech Bubble in 2000 by cutting interest rates to 1% and then again in the aftermath of the GFC in 2008 with once again cutting interest rates and this time going a step further with QE.

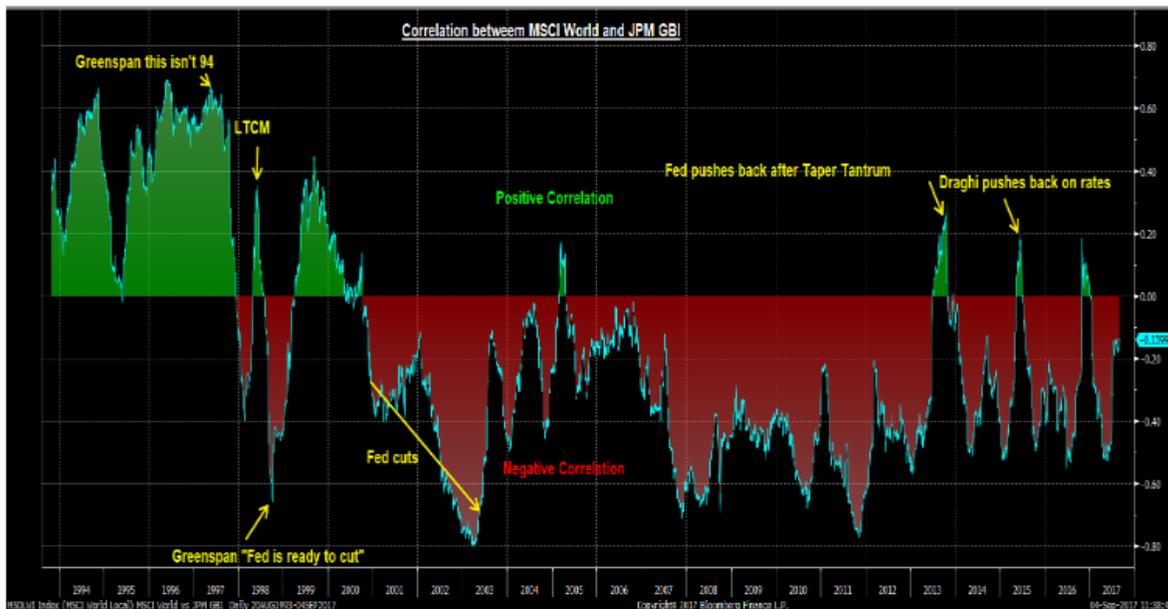
So, yes, habits and conditioned responses are hard to break, but on several occasions starting in the early summer of this year the Fed has been more adamant about articulating the financial stability risks that are being built up in the system. This is their way of soft peddling the notion that asset prices are getting too high and hoping that investors get the message. However, after what has been almost 10 years of asset price manipulation it's fair to say that given the muted response following the Fed's announcement two weeks ago that tapering was going to start on October 1st that investors have aptly been lulled into a deep sense of complacency.

It's reasonable to conclude that the start of Quantitative Tightening (QT) has been well telegraphed (as far back as the June FOMC meeting) and that is why there's been a negligible response in the prevailing trends in most asset classes. Moreover, the glacial pace at which they intend to unwind the balance sheet – \$10 billion per month in Q4, increasing by \$10 billion each quarter until it caps out at \$50 billion per month – renders any immediate risk as quite modest, especially with meaningful QE being implemented by other major central banks. But make no mistake, the status quo that has distorted price discovery for the last ten years is entering a stage of meaningful change.

One last thing for investors to consider is the correlation relationships between stocks and bonds. This is a relationship that virtually every Wall St. investment house and most asset allocation models adhere to today with the embedded view that stocks and bonds are negatively correlated. This negative correlation is a rather recent development whereby prior to the late 90's (using Bank of England data going back 300 years) bond and equity prices were always positively correlated – rising and falling together.



The below chart shows how this correlation relationship between the MSCI World Equity Index (proxy for global equities) and the JPM Global Bond Index (proxy for bonds) flipped to negative since 1998.



Driving the flip-flop in this change of correlation is a Federal Reserve that since the late 90's has been fighting deflationary forces versus what prior to that was an era of inflationary forces. I must say that I'm still of the view that the secular deflationary forces of debt & demographics will remain the dominant forces over the long-term, but in the near-term there are growing signs that a cyclical uptick in inflation is in the works. If this ends up being the case it would be another variable that gives the Fed additional confidence to continue along its tightening path. And what we know about Fed tightening cycles is that 10 of the last 13 have ended in a recession.

A Federal Reserve hiking rates and tightening monetary policy after an extended period of unprecedented policy experimentation with interest rates just off all-time lows, equity valuations at or near all-time highs, house prices at all-time highs, and outstanding debt levels at all-time highs represents an environment that I

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believe investors should be evaluating with a heightened level of caution and prudence. Not less. It's always difficult to see the risks in capital markets when they're in the height of euphoria, the pinnacle of irrationality, and it looks as though nothing can get in their way, but history reminds everyone that chooses not to ignore it that these are the times where the risks are the highest.



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