FIXED INCOME MARKET OUTLOOK

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Market Myths and Realities:
Or, in Today's Parlance, the "Fake News" Versus the "Big News"

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Highlights

- Overall, we anticipate that 2018 will be an interesting year that is difficult to find a perfect historical analogy for, particularly since some notable secular trends (such as diminished fixed income supply) begin to reverse themselves this year.
- Many market myths have taken hold in recent months, particularly surrounding the influence Fed balance sheet reduction will have on systemic liquidity, so we seek to dispel some of those myths here, with our take on reality.
- The economic regime we find ourselves in today should be characterized by a firm level of growth, increased inflation on the back of wage gains, and modestly higher rates, but the budget deficit-funded character of fiscal stimulus impacts rates in a manner that places this regime at longer term risk.

Where We're Heading in 2018; Can Historical Analogies Be Helpful?

Back in October of last year, we wondered whether market returns in 2018 might look like those seen in 2013, since in some respects the return pattern witnessed in 2017 appeared close to that of 2012. In January, this analogy appeared to be playing out, but of course this simple comparison ignores the immense fundamental differences in the economic and investment regimes between these two periods. As a case in point, in 2013 the output gap as a percentage of GDP still resided in deep negative territory, whereas today it has turned positive, according to Bloomberg data as of January 2018. Further, both monetary policy and fiscal dynamics are effectively inverted today, relative to what held in 2013. Indeed, at the start of 2013 the Federal Reserve continued to pursue its near-zero interest rate policy, while today we are well into a policy rate hiking cycle, which should continue throughout this year. Also, in 2013 the budget deficit as a percentage of GDP was declining rapidly, but today is appears set to increase, as much of the fiscal stimulus set forth in recent tax cuts and the budget deal are effectively deficit financed. Finally, global growth is strengthening today in the most robust and synchronized manner that has been seen since the global financial crisis, whereas in 2013 growth remained disappointing, even if risk rallied.

Overall, monetary policy, fiscal policy, the output gap, capital investment, corporate profits and household wealth are all in a vastly different place today than they were in 2013 (primarily, much better), but are there other periods that might serve as more analogous? The 1986 to 1987 period might be one: then, like now, an ongoing secular bull market was in place, the economy was experiencing a deregulatory tailwind, a weak U.S. dollar, a relatively stable interest rate environment, and solid organic real growth that led to a collapsing output gap. In the midst of this demonstrable momentum, the 1986 Tax Reform Act catalyzed a powerful incremental risk rally during the first half of 1987, which eventually gave way to an interval of notably higher rates and historic market volatility. Still, we're confident that today's deeper and more mature financial markets may exhibit less volatility than witnessed in 1987.

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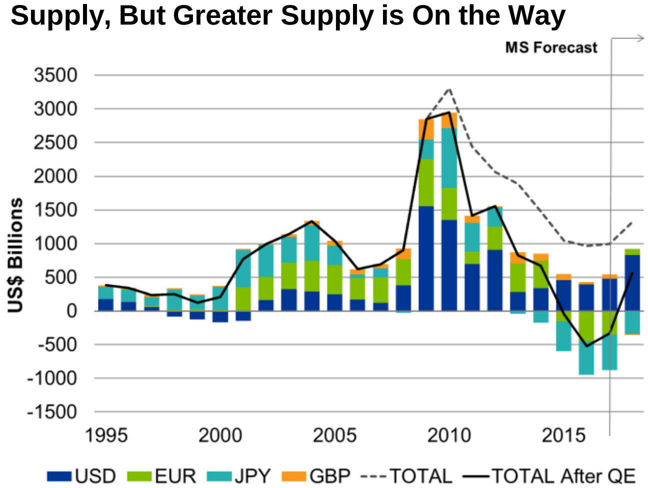
As we look ahead in 2018, some of the long-term structural trends in the economy and markets that we have discussed in recent years appear to be poised for meaningful cyclical counter-trend movement. That does not negate the validity of the secular trend itself, but it does suggest that investors need to understand that long-term influences will, from time-to-time, reverse and retrench, before becoming firmly reestablished. To be concrete, we have long discussed the demographic trend of secular aging that is in place in the United States and most other developed market economies. That trend involves broadly lower levels of household formation as the working-age population declines, reduced consumption, and in the long run, modestly slower economic growth. Still, we think 2018 may see improvement in U.S. household formations, as Millennials who have long delayed the process finally appear to be embracing it. Indeed, according to fourth quarter 2017 Census Bureau data, the final quarter of last year saw a notably higher level of household formations, at 1.44 million, than the two prior quarters and we believe this improved momentum should continue this year.

Another longstanding trend that we have discussed for years is the lower level of fixed income supply relative to demand, particularly after central bank quantitative easing programs are accounted for (see Figure 1). As displayed in the graph, across major developed markets, this trend is set to begin to reverse in 2018, as greater levels of issuance are on the way and central bank purchasing is beginning to wane. That dynamic, alongside rising expectations of inflation, has been partly responsible for recent rate increases and may continue to press rates somewhat higher yet. Still, there are a great many misconceptions regarding how economies and markets are likely to behave under evolving monetary policy, so the next section seeks to clear up confusion.

Figure 1: Demand For Yield Will Likely Outstrip Supply, But Greater Supply is On the Way



Source: Morgan Stanley, data as of December 11, 2017

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Market Myths and Realities:

On Global Liquidity, Fiscal Stimulus and the Market Cycle

We've heard arguments from many market observers that describe how the reduction of the Fed's balance sheet represents an ominous threat to systemic liquidity, and consequently a threat to risk asset markets (the "fake news"). In our view, this contention has virtually no basis in reality, particularly in the next several months. First, investors must recognize that major central bank actions on rate changes, or with purchases to their balance sheets, have global implications for financial asset markets. That is to say that it makes no sense to look at the Fed's balance sheet in isolation of other major developed market central banks. Therefore, we like to look at global liquidity from the standpoint of not only the Fed, but also the European Central Bank, the Bank of Japan, and additionally the aggregate of global foreign exchange reserve levels. This global liquidity proxy, in our estimation, provides a much more meaningful picture of liquidity provision and financial conditions.

Thus, by our measure of global liquidity, the $36 billion reduction in Fed balance sheet, from its 2017 peak through the end of last year, is simply dwarfed by the nearly $1.7 trillion increase in global liquidity provision delivered via the other DM central banks and FX reserve growth, according to Bloomberg data as of year end 2017. That amounts to roughly $9 billion in added liquidity per trading day over this period, so robust global liquidity remained in full force as we entered 2018. Despite the measured reduction in Fed balance sheet, global liquidity is growing, not shrinking, but a greater component of it is, and will likely be, the result of global growth and increasing FX reserves. This will continue to buoy assets, but in many respects, it is a riskier and more volatile liquidity source than central bank liquidity, so we fully expect greater economic and market volatility to come alongside this transition. Many investors underestimate the significant impact global liquidity can have on asset markets, and we would suggest that it is not coincidental that the one year since 2008 that saw global liquidity turn negative was 2015. That year, risk assets suffered some of their worst losses since the global financial crisis and we saw a significant growth slowdown alongside tightened financial conditions. So, investors are right to be concerned with liquidity, but they must judge it within its proper context.

Taking this near-term global liquidity backdrop as our point of departure, we would suggest that the genuinely "big news" is the massive surge in global liquidity over the past 15 years. During that time, we have witnessed a roughly $20 trillion increase in global base money, which has in turn facilitated a near $79 trillion increase in global asset class valuations in aggregate, according to Bloomberg data as of the end of 2017. Effectively, for every $1 of global liquidity injection into the financial system, we have seen close to $3.9 in asset value appreciation. Obviously, there are many

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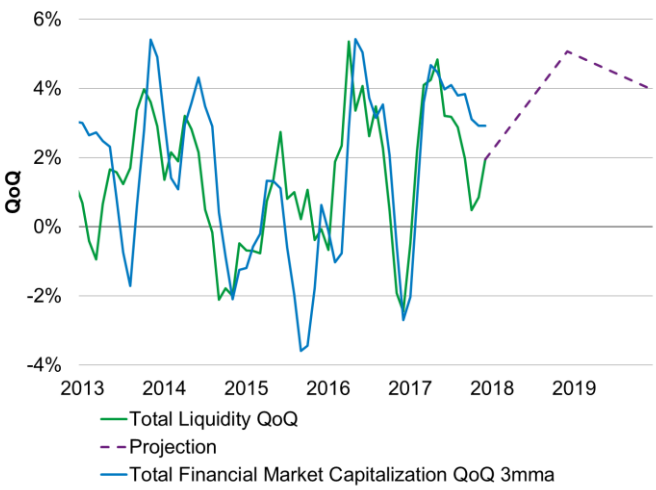
factors that go into changes in asset class prices and valuations, but as we have suggested, we think this surge in global liquidity has been a key factor in underpinning the explosion higher of asset values in recent times. As an illustration of this vital relationship, we can see that the change in total global liquidity over time bears a close parallel to the three-month moving average of total financial market capitalization (see Figure 2). In other words, while many factors are at play in changing asset prices, it's important to recognize that global liquidity is a key one to keep an eye on.

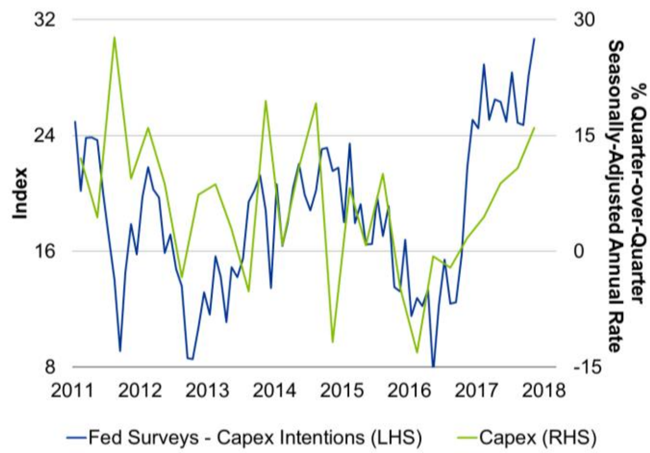
Figure 2: Evolving Global Liquidity and Total Financial Market Capitalization



Source: Bloomberg, data as of September 2017

Another often-cited case of "fake news" by many market commentators is that the recently passed tax cut plan will not provide meaningful stimulus for the economy. Indeed, in our estimation, the "big news" is that the Tax Cuts and Jobs Act of 2017 is a game changer representing a massive deficit-financed pro-growth shock. Moreover, the U.S. Congress has recently delivered still greater deficit-financed stimulus with its budget deal, and there's even the possibly of a third layer of infrastructure stimulus. Still, the immediate positive response from corporate America has been impressive, as the transmission mechanism of fiscal stimulus has been expressed with intentions to increase wages and bonuses, repatriate billions of dollars of foreign-domiciled capital, boost investment (capex and R&D), and bolster shareholder outlays. All of that will likely pull forward at least some 2020–2021 growth, adding as much as a 0.75 percentage point to annual real gross domestic product growth near term, by our estimate.[1] That potentially re-rated growth trajectory comes alongside an uptick in cyclical inflation, driven by accelerating wage growth, which could prolong the cycle somewhat further. At the same time, this fiscal policy regime creates tremendous uncertainty about how these initiatives will be funded down the road, which has sown the seeds of rising economic and market volatility.

Figure 3: Intention vs. Implementation: U.S. Capex Rising Since Mid-2016



Source: JP Morgan, data as of January 2018

Finally, while many describe the improved confidence in the economy, and the cyclical gains in supply-side output, as the "Trump-Trade," we think it arguably began 18 months ago, prior to the point when it was known who would win the Presidential election (see Figure 3). That said, with the growth-positive policies that the Administration has put in place, and particularly with the passing of the tax cut legislation, we believe that the incentives for corporate investment appear more attractive today than at any point post-crisis. As can clearly be seen in Figure 3, corporate capex investment is vaulting higher alongside greatly improved capex survey results, so both the data and anecdotal evidence combine to suggest we're in the midst of a solid cyclical improvement in corporate investment. The key risk here is rising interest rates, in our view, so the capex gains should continue to show through strongly until the cost of funding them becomes too burdensome.

Productivity, Prices, Wages and the Challenge of Stimulus Funding

There is evidence coming in from the fourth quarter 2017 earnings data and CFO commentary that suggests that the recent tax legislation is already having a positive influence on growth and inflation. Indeed, Bloomberg data tracking Wall Street analyst estimates of 1Q 2018 year-over-year earnings-per-share for companies in the SPX is up 20%,

1 Potential GDP Impacts (% of NGDP; using the low end of CBO multiplier range): $100 billion Individual tax cuts, (0.5X multiplier) for 0.25% GDP; $130 billion corporate tax cuts, (0.4X multiplier) for 0.26% GDP; $80 billion in fiscal spending, (0.8X multiplier) for 0.32% GDP; this is offset by -$75 billion in foreign corporate tax income, (0.2X multiplier) for -0.08% GDP. There is no guarantee that any forecasts made will come to pass.

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with actual 4Q 2017 EPS coming in 12.5% higher year-over-year, as of February 20, with 80% of companies having reported. A great deal of this growth is being driven by several technology companies, but if other companies in the SPX can produce even decent growth, then earnings have the potential to explode higher. As for why the tech sector is experiencing such robust earnings growth today, we think at least part of the reason stems from the fact that these firms in aggregate have been outspending other industries in research and development for more than a decade. And the tech sector has also recently started outspending other industries in capex as a percentage of revenue, according to Capital IQ data as of September 2017. As we've mentioned many times over the past few years, those firms that invest in their organic business growth, rather than merely returning capital to shareholders through share buybacks and dividends, have the potential to experience greater longer-term benefits when their businesses ultimately take market share and display strong and stable profit margins, both of which the tech sector has evidenced of late.

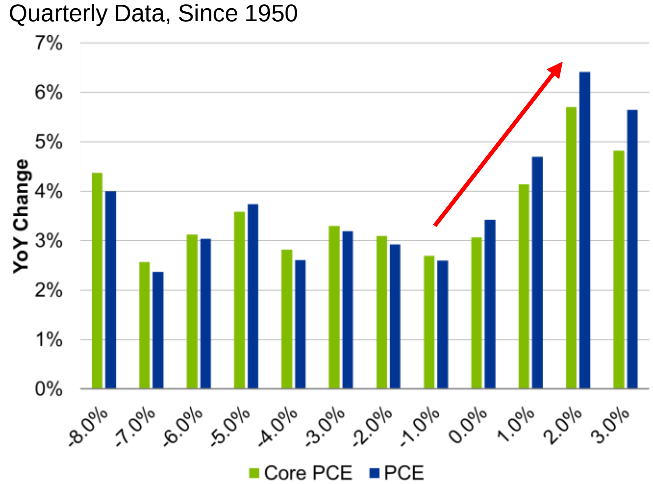
Now, we add in tax stimulus, as well as the repatriation of foreign earnings (at least $900 billion for the tech sector, according to Bloomberg data, as of the end of 2017) and the tech sector may well continue to lead the pack when it comes to corporate investment. In this environment, the potential to expand output (itself a function of capital, labor and productivity) is very real, and despite the demographic headwinds that suggest slower growth ahead, potential output expansion can come via enhanced productivity.

Productivity is a topic that seems to us to be much discussed and little understood, and with the nature of global commerce changing more rapidly than it has since the industrial revolution, it is time for economic models of productivity to be rethought. In our view, one of the main reasons behind what appears to be a structural shift lower in productivity is merely the realignment of the economy from goods consumption (employment) to services sector consumption (employment) that has taken place since the Second World War. According to Bloomberg data as of the end of 2017, when measured by output per hour worked, labor productivity has historically tended to be much higher in goods-producing sectors than in the labor-intensive services industries (compare the real dollar value added per hour of labor in nondurable goods manufacturing, of close to 90, with the roughly 55 for professional and business services workers, the most productive service-sector workers). As a result, as goods sectors have shrunk as part of the economy and services have expanded, it has appeared that productivity has slowed. Yet, in a world measured in terabytes, traditional productivity metrics need to be upgraded to include factors more relevant to technologically advanced economies (for instance, capital and information), and traditional single-factor productivity measures now look increasingly myopic.

One area that technology's powerful efficiencies are on full display is in its disinflationary impact. Many have wondered why we haven't seen greater levels of inflation and pricing power during the course of this expansion, and some have suggested weak aggregate demand, but we believe that another case of "fake news." We believe that inflation has been held down by the productivity-enhancing capacities of technology, like its ability to substitute for more expensive labor, and the extraordinary price transparency now afforded by the web. We see the signs of inflation firming now, as the cyclical recovery of the goods sectors continues apace and as wages accelerate, but that does not mean that technology's disinflationary influence has abated, only that price rises are likely to not be as pronounced as the cycle matures, relative to what we've seen in the past. In any event, historically speaking inflation tends to ramp up once the output gap has been close, which has only recently occurred (see Figure 4). We therefore think that accelerating wages and tight labor markets will be a key part of what causes inflation to pick up in 2018, but we do not at this stage foresee that as holding negative macroeconomic implications.

Figure 4: Next One-Year Change in Personal Consumption Expenditure Prices, By Output Gap as % of GDP

Quarterly Data, Since 1950



Source: Bloomberg, data as of June 2017

Improved wages and continued job growth were evident early in the year, with strong January payrolls figures, and we think this will provide a boost to the U.S. household sector, which has deleveraged a good deal in the wake of the financial crisis. In fact, according to Bloomberg data as of the end of 2017, the U.S. consumer savings rate resided at 5% or greater from 2009 to 2016, as households reduced debt and repaired balance sheets after the crisis, but now the savings rate is moving lower. At the same time, the net worth/disposable income ratio vaulted higher, which with tax bill stimulus, may keep consumption in good shape.

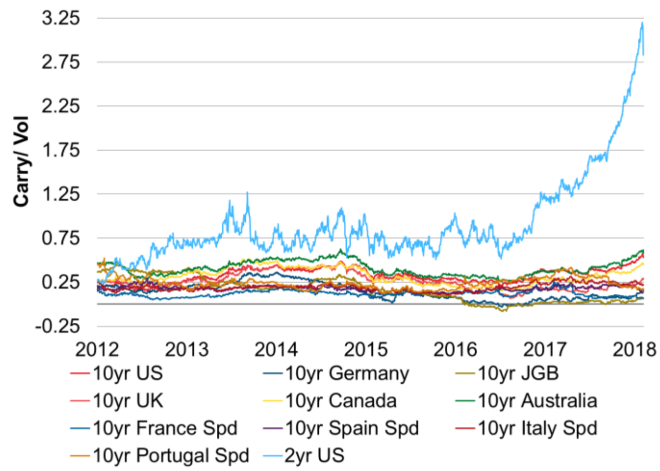
Still, as so often seems to be the case, the seeds of eventual growth moderation/reversal are being sown at the point of its very acceleration. More specifically, we've seen fiscal policy in the U.S. turn from a drag on growth, since about 2009, to a more positive force, *but we think the budget deficit-funded character of the stimulus will have (may already be) an impact on interest rates.* Indeed, the Fed is reducing its balance sheet at the same time that gross issuance of U.S. Treasuries is growing, which is ultimately leading to a very large amount of Treasury supply. That will, of course, be absorbed into the market, but the question is at what price/yield? As we've extensively discussed, global liquidity remains ample at this point in time (and likely for several months), but as UST supply increases, and monetary policy around the globe evolves, we may find ourselves at a point when higher rates slow growth and result in greater risk and volatility (as we've begun to see of late).

Today's Investment Regime: Rates and Risk-Assets

As central bank policy evolves from quantitative easing to the moderate removal of this liquidity, how we've come to expect markets to react could in some respects be turned on its head. Indeed, for years we've shown that during the QE-era rates had historically grinded lower in yield, and only gapped higher during brief spells that were driven by material, and identifiable, catalysts. Today, however, we think the "quantitative tightening," or QT, regime could imply that interest rates begin to naturally grind higher, led by the Fed Funds policy rate, and only gap lower on material deflationary shocks. Further, for much of the past several years, growth concerns have been the chief risk event for markets, but now (based on February 2018 UST options market data from Bloomberg) markets are pricing in more volatility around inflation data than employment data, for the first time post-crisis. That is to say that growth and solid labor markets are being taken for granted by the UST options markets, while vol around the Consumer Price Index is now regarded as a higher risk.

As a result of all the factors we describe above, the impact on interest rates could be significant, so we would rather reduce duration risk today, given the extreme continued risk the back-end of the yield curve faces. Particularly since these long-end yields provide almost no added compensation for taking that risk. Indeed, in the new QT-regime era, the carry versus risk (volatility) profile of developed market sovereigns makes a very strong case for U.S. front-end assets (see Figure 5). Further, we would prefer to use some of that risk reduction to add greater carry in emerging markets assets, which when taken together we think is a much more efficient use of risk. We still believe that we'll see further convergence between EM and DM rate levels, and within DM, the U.S. market remains the most attractive overall, as displayed in Figure 5, but again, not at

Figure 5: The Carry Versus Volatility Ratio Today Makes a Strong Case for Front-End Rates



Source: Bloomberg, data as of January 2018

the long end of the curve. Added to this is the fact that the yield curve is still too flat, given the unusually prolonged nature of this economic cycle. This is particularly the case in the context of reduced Fed balance sheet support, and the potential falling away of the significant bid from some overseas investors.

Remarkably, while for much of the last year the 10-Year UST term-premium was meaningfully above the 2-Year term-premium, those positions recently reversed, according to Bloomberg data as of the end of 2017. As mentioned, the U.S. front end stands out as considerably more attractive than other DM rate markets, so we think re-allocating out of other DM rates, and out of the back-end globally, and into the U.S. front end makes sense. Moreover, another source of upward pressure on U.S. rates markets is the fact that the cross-currency basis cost of hedging currency risk is no longer attractive for many international investors in Treasuries, so a significant source of demand has abated somewhat. And as other DM rate markets begin the process of normalizing monetary policy in the year ahead, it may also make the longer-end of the U.S. curve even less interesting.

This prospective interest rate and inflation outlook also holds critical implications for risk asset markets, and in general, we think the bottom of the capital stack may continue to do well with a gradual backup in rates, however, as we have seen recently, a more abrupt rise in rates can provide a sudden shock to markets. Overall, we think rate levels are not yet prohibitive for further growth and eventual return of risk asset performance, but the evolving liquidity regime, increased inflationary pressures, and higher rate levels suggest that the year ahead will be a more volatile one for both fixed income and equity markets.

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