CONOMIC OUTLOOK



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2016 U.S. Economic Outlook: Is More Of The Same Really So Bad?

It is said that, in war, no battle plan survives first contact with the enemy, to which we offer the parallel that, in economics, no forecast survives first contact with the economic data. Admittedly, this is perhaps not the most inspiring lead-in to a discussion of our 2016 economic outlook, so just consider it the voice of experience winning out over the voice of hope. In any event, just as no army charges into battle without a plan, no economist charges into a new year without a forecast, and what follows is our discussion of how we see 2016 playing out.

"Charge" may be too strong of a word to describe how we're heading into 2016, at least in terms of the economic forecast. Truth be told, we thought seriously about just mailing this one in. After all, over six years since the end of the deep and painful 2007-09 recession, it's almost as though we've been battered into submission by a seemingly endless drumbeat of 2.2 percent real GDP growth.

There are two ways to look at this. One could bemoan the fact that the current expansion has badly underperformed prior expansions, or one could celebrate the fact that, at 61/4 years, the current expansion has outlived all but a few prior expansions. Or, as we prefer to put it, compared to those that have come before it, the current expansion is older but has done less living. In other words, given the depth of the hole the economy had to climb out of and the persistently modest rate at which it has done so, the economy is free of the types of expansion killing imbalances that would have likely developed by now in a fastergrowth expansion. As such, its relatively advanced age alone does not mean the expansion is nearing its end.

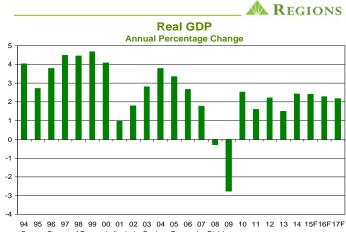
By the same token, however, the relative lack of imbalances, even after a prolonged period of steady, if modest, growth does not mean all is well with the U.S. economy. We're fairly sure that when Confucius said "it does not matter how slow you go as long as you do not stop" he was not weighing in on business cycle theory. Clearly there is still an elevated degree of slack in the economy while energy and non-auto manufacturing remain notable soft spots. Moreover, with such a low trend rate of growth there is simply less capacity to absorb severe adverse shocks, economic or financial, which is worrisome in what remains a soft and uneven global growth environment.

So, there are plenty of questions around the outlook for the U.S. economy in 2016, some of which we'll touch on in what follows. As we do each year at this time, we'll look both back and ahead; back to see how we did with our 2015 forecast, and ahead to discuss what we think 2016 holds in store. Per our usual format we'll do so in the form of questions, the answers to which will lay

down markers for how we expect 2016 to turn out. As we go, we'll look back on some of our 2015 calls and see how they turned out but, as a quick summary, we'll simply say that if economic forecasting is not a humbling exercise, it should be.

QUESTION 1: Real GDP growth - over or under 3.0 percent? Wow, it's like déjà vu all over again all over again, as this is the exact same question we led off with in our 2014 and 2015 outlook pieces. Our answer, in each instance, was "over." Our answer, in each instance, was wrong. Our partial answer this year is "over" but our complete answer this year is "over - what, are you crazy?" Which, loosely translated, means under as we look for real GDP growth of 2.3 percent in 2016.

At this point we do not have complete data for 2015, but our forecast of 1.1 percent annualized growth for Q4 would leave real GDP growth at 2.4 percent for 2015 as a whole. As in 2014, Q1 proved challenging in 2015, as harsh winter weather and the West Coast port strike teamed up to hold real GDP growth down to 0.6 percent. So, just as in 2014, our forecast for 2015 as a whole was pretty much over before the year really began.



Source: Bureau of Economic Analysis: Regions Economics Division

Our forecast called for growth in real consumer spending of 3.5 percent in 2015, but it looks as though growth will come in right at 3.0 percent. We were a bit ambitious with our forecast of better than 9 percent growth in spending on consumer durable goods, even though our forecast of 17.0 million motor vehicle sales was a bit under the actual tally of 17.417 million, the best year since 2000 (data from AutoData). Still, if growth in real consumer spending does come in at 3.0 percent for 2015 that would mark the fastest annual growth since 2006.

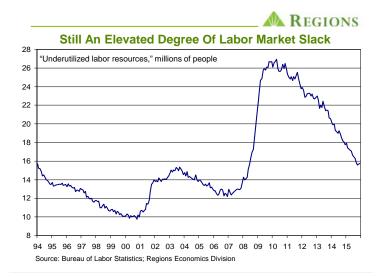
That will of course seem at odds with what have looked to be weak retail sales reports over the past several months. How the two are reconciled is to recall that prices for goods almost across the board, not just gasoline, have been falling, and then to note the monthly retail sales data are reported in nominal terms. After accounting for price changes, one sees growth in spending on goods running around 4.0 percent, year-on-year. Growth in spending on services, which accounts for roughly two-thirds of total consumer spending, has been less rapid, but the bottom line is the trend rate of growth in real consumer spending has clearly improved over the past six quarters. Moreover, in our 2015 outlook we pointed to growth in aggregate wage and salary earnings and improved household balance sheets as being far more important than falling prices as drivers of growth in real consumer spending. This will again be the case in 2016, and we look for growth in real consumer spending of around 2.7 percent.

Our 2015 forecast for business investment spending also proved to be on the high side. This is a function of two things. First, as did many analysts heading into 2015 we badly underestimated the degree of damage the year would bring to the energy sector. This weighed on business investment in both equipment and structures - though energy is but a small share of both of these components, the magnitude of the pullbacks in cap ex in the energy sector did indeed weigh on growth in overall business investment. The other factor, at least in our view, is in a persistently slow growth environment firms simply have less incentive to add to capital stocks and, with labor being relatively cheap, firms needing to expand capacity have to a large degree done so by adding labor, not capital. What we have seen is, instead of investing today in anticipation of future growth, firms have gone shopping and purchased growth in the form of mergers/acquisitions, and this has negative implications for longterm growth. We look for growth in real business investment in equipment and intellectual property products to come in at right at 4.0 percent in 2016. Our forecast that state and local government spending would be sufficiently strong to push total (i.e., federal, state, and local) government higher in 2015 looks to have been on the mark, and we expect government spending to add to top-line real GDP growth in 2016, albeit modestly.

QUESTION 1a: Real private domestic demand growth – over or under 3.0 percent? Over. Sure, we know what you're thinking we just can't let go of this 3.0 percent growth thing, can we. It isn't so much that (we can, we simply choose not to), it's more a matter of us putting our money where our mouth is, so to speak. After all, we frequently point to real private domestic demand, or, combined consumer spending, business investment spending, and residential fixed investment, as a more meaningful indicator of the underlying health of the economy than is top-line real GDP growth. This is due to the inherent guarter-to-guarter volatility in the data on inventories and trade and a high degree of seasonality in the data on federal government spending. These are the main drivers of what can be sharp swings in the quarterly GDP growth numbers, and excluding them is a means of seeing through that volatility and focusing on the underlying trends in the economy. Indeed, data on job and income growth over the past few years are far more consistent with growth in real private domestic demand than with overall real GDP. Though top-line real GDP growth failed to do so, growth in real private domestic demand topped 3.0 percent in 2014 and 2015, which we had forecasted would be the case, and we look for a repeat in 2016.

QUESTION 2: "Underutilized labor resources" – over or under 13.5 million people at year-end? <u>Under, but not by much</u>. In past

years we've used our forecast for the unemployment rate as our main labor market metric – in last year's outlook we said the unemployment rate would be just over 5.0 percent at year-end 2015, and the unemployment rate stood at 5.0 percent as of December. But, last year we pointed to "underutilized labor resources" – the total number of those unemployed, those working part-time for economic reasons, and those marginally attached to the labor force – as a more relevant indicator of labor market slack. This is due to the fact that over the course of this expansion what has been a faster than anticipated decline in the unemployment rate is due in no small part to a declining participation rate. That there has been little acceleration in wage growth even as the unemployment rate has fallen to 5.0 percent was an indication of a still-elevated degree of slack in the labor market, which is captured by underutilized labor resources.



Last year we wrote that while we expected labor market slack to be further pared down in 2015, at year-end we expected it to still be around two million people above the level that would be consistent with a fully healthy labor market, which we peg at around 13.5 million people. As of December, the number of those considered underutilized labor resources stood at 15.759 million, a decline of 1.979 million from year-end 2014. So, as of year-end 2016 we look for that number to be slightly below 13.5 million people – even though we look for a slower pace of job growth, we think a sharper decline in the number of those working part-time for economic reasons will get us below the 13.5 million mark on our measure of labor market slack. And, as a "bonus" forecast, we look for the unemployment rate to end 2016 at or below 4.8 percent.

QUESTION 3: Average hourly earnings growth (year-on-year) – above or below 3.0 percent in Q4 2016? Below. In last year's outlook we predicted little acceleration in hourly earnings growth over the course of 2015, and that is pretty much what we got – little acceleration. While we look for further acceleration in 2016, we still see hourly earnings growth running below 3.0 percent at year-end 2016. (As a side note, rather than setting December, i.e., year-end, as our measuring point, we set it as Q4 which simply reflects the fact that hourly earnings growth can be quirky from month-to-month, which we can avoid by measuring Q4/Q4

growth). As we noted in our 2015 outlook, even though we forecast a significant decline in the unemployment rate, that decline would mask what would remain a high degree of labor market slack which would weigh on wage growth. And, even though we expect that slack to be mostly, if not entirely, pared down by year-end 2016, this will remain a slow process that we expect will continue to weigh on hourly earnings growth.

Moreover, our forecast also reflects some of the under-theheadlines dynamics we see in the labor market. For instance, retiring Baby Boomers being replaced, at least to some degree, by younger workers (a decidedly less polite way to phrase this would be to say older, more expensive workers being replaced by younger, less expensive workers, but we'd never say anything that crass), and that service providing industries will again account for the bulk of job growth in 2016 with little net change in payrolls amongst the goods producing industries.

For some perspective, when analysts refer to "normal" growth in average hourly earnings, 3.5 percent (year-over-year) is often the benchmark. This is derived by summing 1.5 percent productivity growth and 2.0 inflation. We don't believe either of those reflects "normal," at least at this point, as we peg productivity growth between 0.80 and 1.00 percent as for now normal and don't see inflation back at 2.0 percent until some point in 2017. All in all, hourly earnings growth of around 2.8 percent by Q4 2016 would be about as good as we see it getting.

QUESTION 4: PCE inflation – above or below 2.0 percent in Q4 2016? Below – both headline and core. Our 2015 forecast called for core PCE inflation to remain below 2.0 percent; as of this writing December data are not yet available but through November PCE inflation was running at 0.26 percent and core PCE inflation was running at 1.31 percent in 2015. As for core CPI inflation, we noted that it could be running at 2.0 percent at year-end 2015 but, if so, that would be a function of rapid rent growth, as has proved to be the case. Core CPI inflation came in at 2.0 percent in November but stripping out shelter costs, of which rents account for more than 90 percent, left core CPI inflation at 1.2 percent.

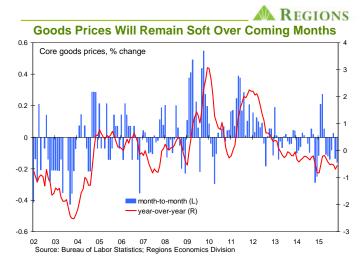
To the extent the dramatic plunge in energy prices suppressed headline inflation in 2015 that will wash from the data in 2016, assuming of course crude oil prices don't keep declining. While not our baseline outlook, it isn't outside of the realm of possibility that crude oil prices could fall into the \$20s during 2016. Either way, we see crude (WTI) ending 2016 below \$50 per barrel.

Outside of energy prices, we are less confident than the FOMC seems to be that inflation will steadily accelerate over coming quarters. As the FOMC views it, inflation is largely a function of the degree of slack in the economy, particularly in the labor market. According to this view, as we approach, and possibly go beyond, full employment, accelerating wage pressures will be a precursor to rising inflation pressures in the broader economy. Historical evidence of a trade-off between unemployment and inflation is seen in the Phillips curve, but whether this is relevant to current labor market conditions is an open question.

There is simply little, if any, empirical evidence to support the premise of a trade-off between unemployment and inflation (to be fair, the original Phillips Curve was an ex-post relationship

observed in the data from 1861 to 1957 by A.W. Phillips who himself did not argue that ex-ante we should expect any such trade-off). One thing many observers fail to account for when positing a link between unemployment and inflation is the role of productivity growth. Higher wages in isolation do not lead to inflation pressures; it is wage growth in excess of productivity growth that can ignite inflation pressures. To be sure, given the current anemic rate of productivity growth that may seem a distinction without difference, but from a firm's point of view that anemic productivity growth will be somewhat of a cap on wage growth, at least until labor market conditions are much tighter than they figure to be by year-end 2016.

Aside from our expectation that growth in hourly earnings will remain fairly subdued in 2016, we place more significance on global forces that, in our view, will continue to weigh on inflation in 2016. Depressed commodity and energy prices may stabilize in 2016 but we simply do not see much upside movement given the degree of supply-demand imbalance that presently exists. In addition, to the extent the U.S. dollar appreciates further in 2016 there will be further downward pressure on goods prices that will in turn remain a drag on headline and core inflation.



The above chart illustrates our point. As measured in the CPI data, as of November 2015 core goods (i.e., goods excluding food and energy) prices had declined on a year-over-year basis for 32 consecutive months and month-to-month in six of the past seven months. Depending on the course of the U.S. dollar, we expect these patterns to persist at least through the first half of 2016 if not longer. To be sure, services prices are rising at a faster clip but nonetheless core services inflation remains well below historical norms. So, sure, while stable energy prices (again, not a lock) would generate faster inflation, there is only so far this simple math takes you and, in our view, by year-end 2016 both headline and core PCE inflation will be shy of 2.0 percent, likely further from it than the FOMC anticipates.

QUESTION 5: Number of months in 2016 in which the ISM Manufacturing Index will be below 50 percent – over or under six? <u>Under, but it may be a close call</u>. If you do not grasp the significance of this, in the ISM data 50 percent is the break between expansion and contraction and at year-end 2015 the ISM Manufacturing Index was on the wrong side of that break.

As we head into 2016 the manufacturing sector is facing three major headwinds: 1) an inventory overhang; 2) falling capital expenditures in the energy sector; and 3) weak global demand (we see this and a stronger U.S. dollar as two sides of the same coin, not two distinct issues).

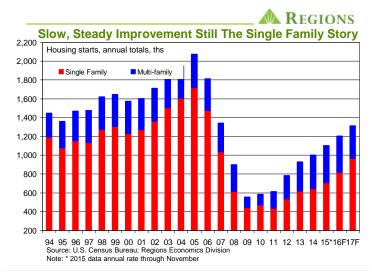
The first half of 2015 saw the largest build in private nonfarm inventories in the life of the GDP data, and while we thought much of that overhang would be worn off in Q3 2015, that proved not to be the case. As such, inventories will be a drag on real GDP growth into Q1 2016, and in terms of the ISM Manufacturing Index this shows up in lower levels of new orders, current production, and employment. As for the energy sector the leg down in crude oil prices in the final weeks of 2015 will spur even deeper cuts in capital investment budgets for 2016 and likely for 2017, which in turn weighs on firms who produce oil and gas field equipment and machinery. Finally, weak global demand has been weighing on U.S. manufacturers - the ISM data shows new export orders have contracted in six of the past seven months. The effects of weak global demand are amplified by a stronger U.S. dollar, which makes goods produced in the U.S. more expensive on global markets.

Sequentially, the order in which we listed the three headwinds above is the order in which we expect them to abate in 2016. We expect the inventory overhang to have been cleared by the end of Q1 2016. By mid-year we look for capital expenditures in the energy sector to stabilize which does not mean energy will suddenly become a driver of manufacturing activity but does mean it will cease to be a drag. It isn't until the second half of 2016 that we expect to see meaningful and sustained increases in global demand. This, at least in our view, adds up to a challenging first half of 2016 for the manufacturing sector with but modest improvement over the year's second half. While we don't expect the ISM Manufacturing Index to show the factory sector contracting for the better part of 2016, neither do we expect it to show anything close to robust growth by year-end.

QUESTION 6: Housing Starts – over or under 1.25 million units? <u>Under</u>. Our marker in 2014 was 1.0 million units, and our call was "over, but just barely" and data now show 1.001 million total starts in 2014 which, as we understand it, constitutes "just barely." Our marker for 2015 was 1.2 million units, and our call was "under." While data for December 2015 aren't yet available, in the 12 months ending in November there were 1.106 million total starts, so it's a safe bet that December's construction activity won't push the annual total over the 1.2 million unit mark. And, if you're thinking now that 1.2 million was clearly too high a marker and "under" was the obvious call, the reality is that 1.2 million units in 2015 was in line with consensus expectations; our forecast for residential construction was below consensus, as has been the case over the past several years.

While our multi-family calls have been in line with consensus, it has been our calls on single family that have been far below and, as such, far closer to the mark than have been the consensus forecasts. For 2015 our call was single family starts would fall just below 700,000 units for the year as a whole but by year-end single family starts would be running above the 700,000 unit pace. Through November annualized single family starts were running at 706,000 units, but the November data were skewed

significantly higher due to seasonal adjustment issues, so we were pretty much on the mark here.



We look for single family starts to come in at over 800,000 units for 2016 but expect to see a drop in multi-family starts to around 365,000 units. We think by 2H 2016 the to-date frenzied pace of multi-family starts will tail off, particularly should completions finally begin to catch up after what has been an abnormally large gap between starts and completions over the past two years. As for single family, we've seen nothing in any of the data nor heard anything in the anecdotal reports or builders' earnings calls to make us change our tune - slow and steady improvement will remain the single family story in 2016. Shortages of lots, labor, and materials will continue to weigh on new single family construction. Moreover, the past few years have seen builders migrate to the higher end of the price scale on new single family construction - what they've been missing out on in volume they've been making up for in margin. We do see that continuing in 2016, but at some point that will have to change as even the high end of the market can become fatigued. We do think there are opportunities for any builder willing to target the lower end of the price scale, particularly first-time buyers. That said, our 2016 residential construction outlook is again on the low end of peer forecasts, but that's worked out fine for us so far.

QUESTION 7: House price appreciation, as measured by the CoreLogic House Price Index, over or under 5.5 percent? <u>Under.</u> Our 2015 marker was 5.0 percent and we took "under" which, for most of the year looked like the right call. But, over the year's final months the pace of house price appreciation picked up such that year-to-date through November the CoreLogic HPI was up 5.1 percent in 2015, leaving us just on the wrong side of right.

To a large extent, the faster pace of house price appreciation in late 2015 reflected lean inventories that were acting as a drag on existing home sales. We see a mix of factors holding down inventories of existing homes for sale. While negative equity is fading as a constraint on listings and sales – data from CoreLogic indicate only about 8 percent of mortgages are underwater – a significant number of homeowners remain in limited equity positions (i.e., equity positions of less than 20 percent) which remain a binding constraint. Additionally, while many point to favorable mortgage interest rates as a support on the demand

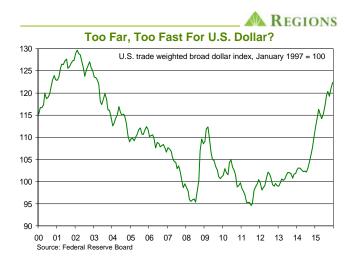
side, mortgage rates may at present be acting as a weight on supply. Over recent years many homeowners have refinanced mortgages at exceptionally low mortgage interest rates; were they to purchase another home now they would likely see higher rates on new mortgage loans and many such homeowners may simply not be willing to make this trade. To the extent this is an issue, it will only worsen as mortgage interest rates head higher, even if at a gradual pace. Finally, with first time buyers accounting for a below-normal share of sales, there is less scope for move-up sales, which could be limiting listings.

We think inventory constraints will ease, at least to some degree, in 2016, which will take some of the steam out of house price appreciation. Our forecast is that price appreciation will remain fairly strong over the first half of 2016 before easing over the second half of the year, leaving price appreciation just shy of 5.5 percent for the year as a whole. We expect existing home sales to gradually trend higher but, as we have noted over the past several months, that gradual pace of improvement will continue to mask an improving mix of sales. As distress sales continue to fade from the existing home sales landscape, non-distress sales will rise at a faster pace than is the case for total sales (i.e., combined distress and non-distress sales). To us, this has been one of the underappreciated aspects of the housing market over the past year to year-and-a-half, and it will remain so in 2016.

QUESTION 8: A new record high for the U.S. dollar in 2016? No. While it may seem nothing can stop the inexorable rise of the mighty U.S. dollar, one would do well to remember the words of the late Herbert Stein, who famously noted "if something cannot go on forever, it will stop." Having gone basically nowhere since 2012, the U.S. dollar shot out of the blocks like Usain Bolt in late 2014, to the point that by year-end 2014 the U.S. Trade Weighted Broad Dollar Index was 9.0 percent higher than at year-end 2013. In 2015, the dollar index added another 10.5 percent, putting the all-time high for the index reached in early 2002 in sight. While faster than any of the others, however, even Mr. Bolt has to stop sooner or later, and we think that will be the case with the U.S. dollar in 2016.

It helps to stop and consider what has thus far driven the U.S. dollar higher before thinking about how much higher it can go. Entering Q4 2014 the U.S. economy had turned in two consecutive quarters of real GDP growth in excess of 4.0 percent and expectations were high for 2015 - we weren't alone in predicting real GDP growth of better than 3.0 percent. While slow by our own historical standards this still put the U.S. economy on the fast track compared to other major economies. This in turn led to expectations the FOMC would begin raising the Fed funds rate at some point in 2015, most likely mid-year, while other central banks were adding additional monetary accommodation. This proved to be powerful fuel for the U.S. dollar, and while U.S. growth didn't come in as strong as expected in 2015, it outpaced other major economies while China's economy slowed and many emerging economies either fell into or bordered on recession. As a result, the dollar appreciated further 2015 and got an extra kick when the FOMC finally raised the Fed funds rate in December.

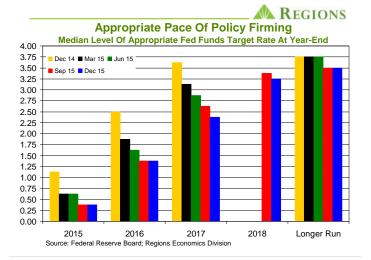
It is reasonable to ask whether the dollar has gotten ahead of itself. While central bank policy divergence will be a key theme in 2016, we'd argue there is far greater policy divergence priced into the dollar than will actually occur in 2016. This is a function of what we expect to be a very gradual path for the Fed funds rate in 2016 (see Question 9) and also our expectation that foreign central banks will underperform market expectations in terms of adding further policy accommodation. After all, in the closing weeks of 2015 both the ECB and Bank of Japan managed to underwhelm market participants, whose expectations may have been out of alignment with improvement - even if at a grudging rate - in the Euro Zone and Japanese economies. This is not to say we do not expect the U.S. dollar to appreciate further in 2016, we do, particularly in the year's first half. But, we simply do not expect it to appreciate by the 5.9 percent - on top of what has already occurred - it would take to push the Broad Dollar Index to a new record high. And, should global economic growth pick up faster than we forecast in our baseline case and risk-on come back in voque, then it could easily be "look out below" for the U.S. dollar in 2016.



QUESTION 9: The mid-point of the Fed funds rate target range at year-end 2016, over or under 1.00 percent? Under. Okay, this is the same question and the same answer we had for 2015 in last year's outlook piece and if 1.00 percent now seems obviously high and our answer obviously easy, don't think about it from today's perspective, think about it from the perspective of a year ago. As noted in our answer to Question 8, expectations for real GDP growth in 2015 were much higher than are expectations for 2016 growth and while market participants were pricing in a series of Fed funds rate hikes in 2015 the FOMC itself was doing the same, as shown below in our summary of the "dot plot" (the dot plot shows the median level of what FOMC members see as the "appropriate" year-end Fed funds rate target). As of the December 2014 FOMC meeting, the median Fed funds target range mid-point at year-end 2015 was 1.125 percent, which makes our "under" 1.00 percent call seem less obvious.

Just as in December 2014 the dot plot suggested 100 basis points of Fed funds rate hikes in 2015, the December 2015 dot plot suggests 100 basis points of Fed funds rate hikes in 2016. And, just as we took the under in 2015, we take the under in 2016 and expect the mid-point of the Fed funds rate target range to be 0.875 percent at year-end 2016 – 50 basis points higher than where it stands today.

We think another year of slow but steady real GDP growth along with muted wage and inflation pressures will result in a more gradual course of funds rate hikes than the FOMC anticipated at their December 2015 meeting. Moreover, the FOMC is also mindful of the fact that, even before they raised the funds rate, overall financial conditions had tightened considerably, thanks in large part to the stronger U.S. dollar. On top of which the FOMC is mindful of the harsh impact dollar appreciation has had on U.S. exports. In short, we think the bar for further funds rate hikes is set higher than implied by the dot plot and if 2016 plays out as we anticipated – okay, sure, that may be a big if – then a truly data dependent FOMC will move at a slower pace than that implied by their December 2015 projections.



QUESTION 10: What are the risks, upside and downside, to our forecast, and which way does the balance of risks tilt? This is a question we ask not just when we do our annual outlook piece but each month when we update our macro forecast. In last year's outlook we wrote "what is striking is the extent to which the downside risks (to our baseline forecast) are motivated by global, not domestic, forces." We'd say the same is largely true for our 2016 forecast and, at present, we see the risks to our forecast as slightly tilted to the downside.

We remain concerned that central bank policy divergence could be a source of considerable volatility in the financial markets in 2016 which, if sufficiently severe and persistent, could have an adverse impact on the real economy. Moreover, even if we confine our view to the U.S. there is, at present, a wide gap in expectations of market participants and the FOMC as to the path of the Fed funds rate in 2016. Our forecast of two hikes in the Fed funds rate is aligned with market expectations, and should the FOMC's collective view of the path of the funds rate prove closer to the mark, it will take a deft touch on the part of the Committee to move the markets there in an orderly fashion.

The U.S. manufacturing sector is vulnerable to a weaker global growth profile than we've incorporated into our baseline outlook. As is, slower growth in China will have adverse consequences across the globe and will be a steady source of downward pressure on energy and commodity prices in 2016. While it is true that a softer global growth environment makes for a firmer U.S. dollar, that too has its downside. In addition to making U.S.

exports less competitive globally, a stronger U.S. dollar also hurts U.S. corporate profits upon conversion of foreign earnings.

Moreover, should weaker global growth put further downward pressure on energy prices, this would only magnify the risks to U.S. energy producers, the companies that provide equipment and services to energy producers, and the financial institutions with exposure to energy and energy related companies and their employees. Further cutbacks in capital spending in the energy sector would take a bigger toll on business investment spending, and in turn, the manufacturing sector, than we have incorporated into our baseline forecast. In general, slumping corporate profits in the broader economy pose a downside risk to business investment spending and, in turn, real GDP growth.

There are, to be sure, also upside risks to our baseline forecast. We expect modest global growth but could be surprised to the upside should stimulus in Europe, Japan, China, and other global economies have more of a kick than we expect will be the case. One impact of faster global growth would be sharp increases in energy and commodity prices, which in turn would mean inflation would top our forecast and the FOMC would be more aggressive than we, and financial markets, now expect will be the case.

Another upside risk is a faster rate of household formation than we expect could spur faster growth in residential construction than is incorporated into our baseline forecast. Further job and income growth could lead to more of the over 22 million 18-to-34 year-olds now living at home to leave the nest and form their own households, fueling additional growth in the demand for housing. Regardless of the cause, should single family construction activity surprise us to the upside real GDP growth would exceed our expectations. Starting from the number of construction jobs and ending with the associated spending by the ultimate occupant, a new single family housing unit has a much larger economic impact than a new multi-family housing unit.

Should job and wage growth exceed our expectations, faster personal income growth than we expect would mean growth in real consumer spending would also top our forecast. Further declines in energy prices and a stronger U.S. dollar than we have incorporated into our baseline forecast would lead to faster growth in real consumer spending than we expect, despite these factors making growth in nominal spending look even weaker.

While a foolish consistency may be the hobgoblin of little minds, consistency, foolish or otherwise, is desirable in an economic forecast. Internal consistency anyway. Our forecast, right or wrong, is internally consistent in that our outlooks for real GDP growth, wage and inflation pressures, the path of the Fed funds rate, and the path of the U.S. dollar are all aligned with each other. As such, if we are wrong in one of these areas we will almost surely be wrong in all of them - in for a penny, in for a pound, as it were. To be sure, we could have produced an all over the map forecast in hopes of getting at least some of our calls right, but instead opted for a detailed discussion of how, and why, we see 2016 playing out. As always, there is plenty of room for each reader to disagree with our outlook which is of course fine - all we ask for in return is the same degree of internal consistency when doing so. Either way, check back next year at this time to see how our forecast holds up.

ECONOMIC OUTLOOK A REGIONS January 2016



January 2016

Q3 '15 (a)	Q4 '15 (f)	Q1 '16 (f)	Q2 '16 (f)	Q3 '16 (f)	Q4 '16 (f)	Q1 '17 (f)	Q2 '17 (f)		2014 (a)	2015 (f)	2016 (f)	2017 (f)
2.0	1.1	2.7	2.5	2.5	2.1	2.2	2.1	Real GDP ¹	2.4	2.4	2.3	2.2
3.0	2.0	2.9	2.8	2.5	2.3	2.0	2.0	Real Personal Consumption ¹	2.7	3.1	2.7	2.2
								Business Fixed Investment:				
5.5	4.2	3.5	4.0	3.7	3.3	3.3	3.4	Equipment, Software, & IP ¹	5.6	4.4	4.0	3.4
-7.2	2.3	4.0	2.3	1.2	2.1	3.1	3.5	Structures ¹	8.1	-1.0	1.6	2.7
8.2	10.9	10.0	8.3	11.7	11.6	10.3	9.5	Residential Fixed Investment ¹	1.8	8.9	9.9	10.1
1.8	-0.4	0.7	0.3	0.3	0.1	1.0	0.8	Government Expenditures ¹	-0.6	0.7	0.6	0.6
-546.1	-545.7	-556.1	-570.1	-572.0	-577.6	-581.9	-590.6	Net Exports ²	-442.5	-541.9	-569.0	-590.8
1.158	1.121	1.169	1.186	1.215	1.243	1.271	1.298	Housing Starts, millions of units ³	1.001	1.104	1.203	1.314
17.8	17.8	17.6	17.4	17.2	17.0	16.7	16.5	Vehicle Sales, millions of units ³	16.4	17.3	17.3	16.4
5.2	5.0	5.0	5.0	4.9	4.9	4.9	4.9	Unemployment Rate, % ⁴	6.2	5.3	5.0	4.8
2.1	1.9	1.8	1.8	1.7	1.5	1.4	1.4	Non-Farm Employment ⁵	1.9	2.1	1.7	1.4
2.1	1.5	1.0	1.0	1.7	1.5	1.4	1.4	Non-i arm Employment	1.5	2.1	1.7	1.4
0.9	1.2	1.6	1.5	1.6	1.8	1.8	1.8	GDP Price Index ⁵	1.6	1.0	1.6	1.7
0.3	0.4	1.1	1.0	1.2	1.8	2.1	2.2	PCE Deflator⁵	1.4	0.3	1.3	2.1
0.1	0.3	1.2	1.0	1.2	1.9	2.4	2.4	Consumer Price Index ⁵	1.6	0.1	1.3	2.4
1.3	1.5	1.6	1.5	1.6	1.7	1.8	1.8	Core PCE Deflator⁵	1.5	1.3	1.6	1.9
1.8	1.9	1.8	1.7	1.8	2.0	2.2	2.2	Core Consumer Price Index ⁵	1.7	1.8	1.8	2.2
0.13	0.17	0.38	0.41	0.66	0.88	0.91	1.16	Fed Funds Target Rate, %4	0.13	0.14	0.58	1.28
2.22	2.19	2.23	2.32	2.41	2.52	2.71	2.88	10-Year Treasury Note Yield, % ⁴	2.54	2.14	2.37	2.89
3.95	3.90	3.89	3.94	4.02	4.12	4.27	4.44	30-Year Fixed Mortgage, % ⁴	4.17	3.85	3.99	4.47
5.55							7.77	50 Teal Tinea WiortBage, 70				
-2.8	-2.8	-2.6	-2.7	-2.7	-2.8	-2.8	-2.9	Current Account, % of GDP	-2.3	-2.7	-2.7	-2.9

a = actual; f = forecast; p = preliminary

1 - annualized percentage change Notes:

2 - chained 2009 \$ billions

3 - annualized rate

4 - quarterly average

5 - year-over-year percentage change