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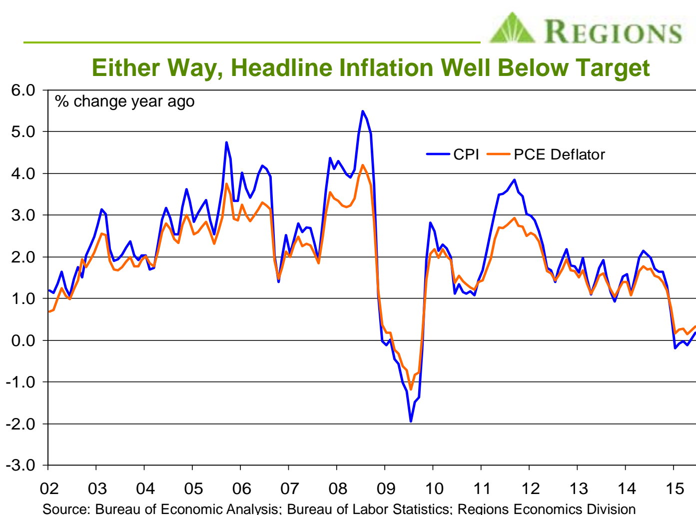
Define "Reasonably Confident" . . .

One could go back through the annals of central banking and find few, if any, instances of central bankers wanting to see more inflation. Yet, that's pretty much where we find ourselves, with the Fed, the Bank of Japan, and the ECB, among other central banks, looking for accelerating inflation as a sign their respective economies are on the right course and, in the case of the Fed, on sure enough footing to withstand a hike in the Fed funds rate. To be sure, the Fed isn't looking to become Zimbabwe, where in the not too distant past 50,000 percent would have constituted "tame" inflation, but would instead settle for a far more sedate 2.0 percent rate of inflation.

That, of course, corresponds with the Fed's inflation target though, at present, inflation is nowhere near 2.0 percent (as seen in the chart below) and, in fact, has been below the Fed's target for the past 38 months – a streak that will persist for some time to come. As of June, the two main measures of inflation – the Consumer Price Index (CPI) and the PCE Deflator – showed inflation at 0.2 percent and 0.3 percent, respectively, and it will likely be some time before inflation approaches the Fed's target rate. There are those, including some FOMC members, who argue that with inflation so low the FOMC should not even consider raising the Fed funds rate. Nonetheless, the FOMC is widely expected to deliver the initial increase in the Fed funds rate at some point in 2015, be it September or December, even with inflation running so far below their target.



Fed Chairwoman Yellen frequently makes the point the FOMC must be forward looking when it comes to inflation, i.e., given the long and variable lag through which monetary policy impacts the economy (at least in the traditional sense of the term "monetary policy") the time for the FOMC to act is before inflation accelerates meaningfully, not after. As such, most FOMC members would think it prudent to act in anticipation of rising inflation in the future even if, in the present, inflation remains below target. To this point, the FOMC has adopted a somewhat asymmetric standard for measuring progress on fulfilling its dual mandate of price stability and full employment. While the Committee needs to see tangible evidence of further improvement in labor market conditions, they need only be "reasonably confident that inflation will move back to its 2 percent objective over the medium term" (quoting from the statement released subsequent to the July FOMC meeting, with this particular passage having been used a number of times).

The question becomes what constitutes "reasonably confident" and what would make the FOMC reasonably confident inflation will move back to the target rate of 2.0 percent. Of course, there is the whole time dimension thing – it is not exactly clear what the phrase "over the medium term" means in terms of actual calendar time. If we're talking tomorrow, then, no, one would not be at all confident, let alone reasonably so, that inflation will move back to the target rate. If on the other hand we're talking some point before the end of time, then it is a virtual certainty (barring, of course, the world ending tomorrow) inflation will return to the target rate. As there is not a lot of clarity on this point, let's just stipulate the medium term falls somewhere between tomorrow and the end of time and get back to the "reasonably confident" question.

One factor often noted by Dr. Yellen is the effect lower energy prices have had on measured headline inflation over the past several months. Marking the precipitous decline in crude oil prices, retail gasoline prices posted a 43.5 percent decline between June 2014 and January 2015. Though having risen in line with normal seasonal patterns over the spring and early summer, retail pump prices ended July 25 percent below the peak seen in June 2014. It is the case that at some point the effects of the sharp decline in retail gasoline prices will wash from the data and headline inflation will begin to edge higher.

That may, however, take longer than had been anticipated. After having stabilized at around $60 per barrel from May through early July, crude oil prices (WTI spot price) began falling and ended July below $50 per barrel. This will lead to downward pressure on retail gasoline prices, pressure which should intensify when retail pump prices embark on the typical post-Labor Day seasonal declines. To the extent this turns out to be the case, retail gasoline prices will again become a significant drag on measured headline inflation, pushing inflation further away from, rather than closer to, the Fed's 2.0 percent target rate.

Another factor that may cause the FOMC's confidence on the inflation front to waver is the recent downturn in commodity

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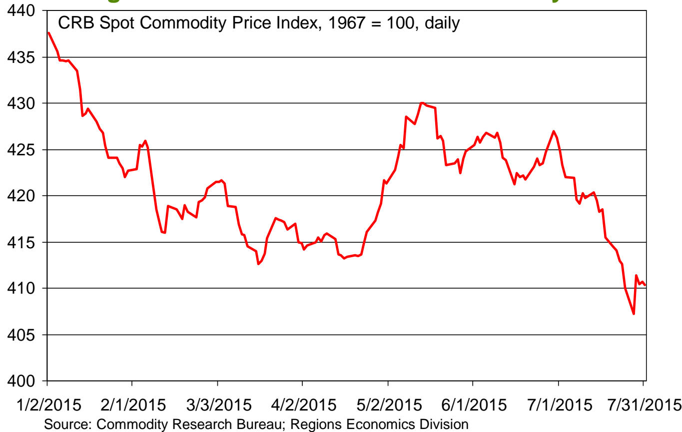
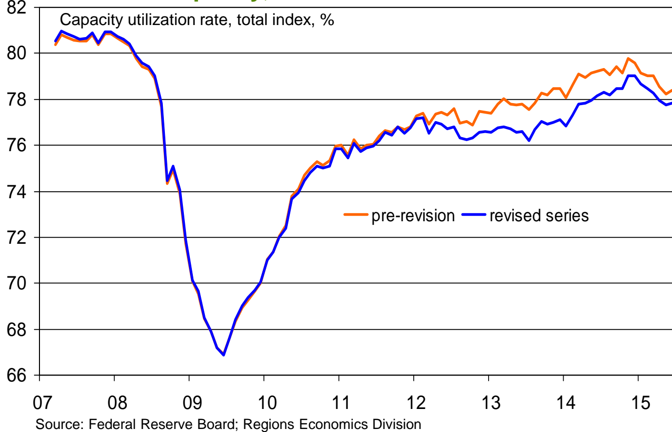


prices. The Commodity Research Bureau (CRB) publishes an index of spot commodity prices for 22 basic commodities whose markets are seen as being most sensitive to changes in economic activity. As seen in the above chart, after staging a mini-rally in mid-April commodity prices have not only trended lower but the decline accelerated during the month of July. Though not to the same degree as in past decades, commodity prices do have an impact on measured headline inflation so, to the extent the recent weakness in commodity prices persists, this is another factor that will push inflation further away from, rather than closer to, the Fed's 2.0 percent target rate.



Yet another factor that argues for inflation pressures to remain muted over coming quarters is a low rate of capacity utilization in the domestic economy. Or, to be more specific, a lower rate of capacity utilization than was thought to be the case. The Fed recently released the annual benchmark revisions to their data on industrial production and capacity utilization and, as seen in the above chart, utilization was revised significantly lower in the post-recession period. At least in theory, a greater degree of idle capacity means factories, mines, and utilities have the ability to ramp up output without pushing for higher prices in the face of rising demand. Hence, the downward revision to utilization suggests we are further away from the point where growth in demand would be the catalyst for higher prices, and, again, puts us that much further from seeing meaningful and sustained acceleration in inflation that would put it closer to the Fed's target rate.

How much weight the FOMC will, or should, place on these factors is an open question. For instance, the downward revision to capacity utilization will likely not be too concerning to the FOMC, at least as it impacts inflation. Back in the day, by which we mean when the U.S. economy was much more of a closed economy far more reliant on manufacturing than is the case today, the rule of thumb was once the capacity utilization rate topped 82.5 percent inflation pressures would begin building at a faster pace. Today, however, the U.S. and other economies around the world are far more open and capacity, at least manufacturing capacity, is more of a global concept. So, while idle capacity poses concerns to policy makers, having more idle capacity in the domestic economy likely dampens inflation pressures to only a marginal degree.

As to energy and commodity prices, the recent declines are much more likely to be of concern to the FOMC. Still, these declines are to a large degree a global story, particularly with the uncertainty over the true underlying health of China's economy. China, after all, has for the past several years played the role of the world's marginal consumer of raw materials and industrial commodities. Even in the best case scenario China's desire to transition from an industrial, export driven economy to a domestic consumption, services driven economy would have put downward pressure on commodity and energy prices. That this transition does not seem to be going smoothly – which should come as a surprise to no one given the sheer size and unwieldy nature of the Chinese economy – is only intensifying downward pressure on energy and commodity prices.

Added to already weak demand from Europe and a still uncertain outlook for Japan, diminished demand from China is a negative for energy and commodity prices. To be sure, at least in terms of energy, there is clearly a supply side component to recent declines in prices. With U.S. production not yet seeing a significant and sustained decline, despite cutbacks in jobs, investment, and active rigs, and the prospect of Iran again coming back as a seller in the global market, there are concerns oil prices could fall further, potentially much further. To the extent they do, or even if they merely stabilize at a price below $50 per barrel, such an outcome would make it more challenging for the FOMC to hit their inflation target.

An additional question regarding recent downward pressure on energy and commodity prices is to what extent does this pressure reflect diminished demand, or at least the expectations of diminished demand, from China and other spots around the globe, and to what extent does this downward pressure reflect the impact of a stronger U.S. dollar. After all, energy and commodities are traded globally and priced in U.S. dollars, so that a stronger dollar means downward pressure on prices in global markets. This is a question that clearly has implications for the FOMC. After all, if it is a matter of weaker foreign demand, that is something that would be expected to reverse, which

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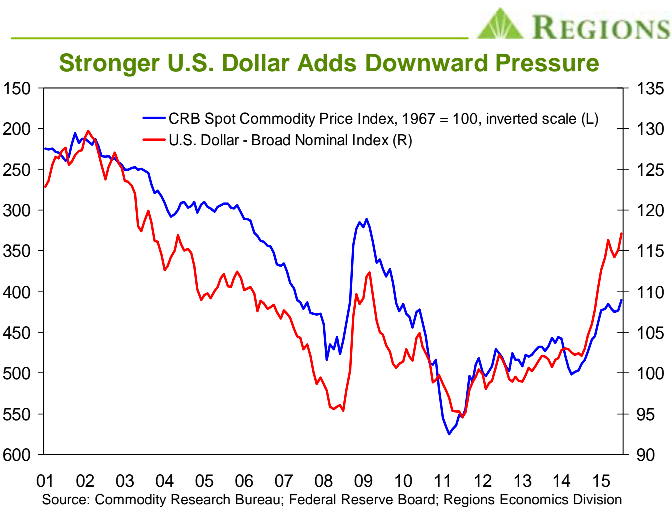
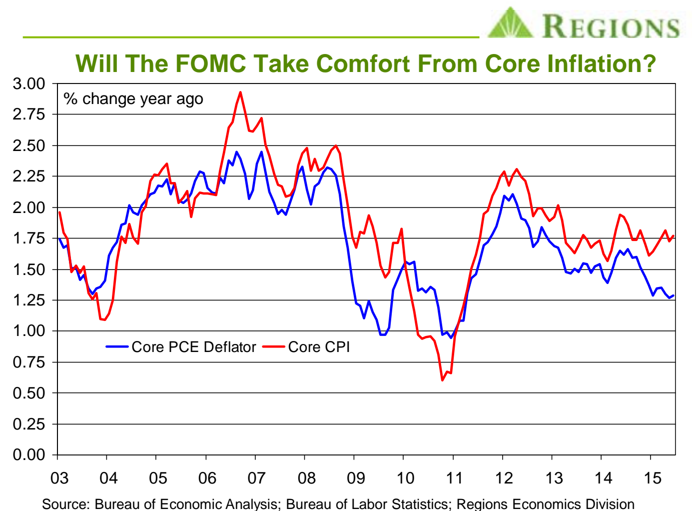
would help the FOMC be reasonably confident in expecting gradually rising inflation, as stronger global demand for industrial commodities and energy would put upward pressure on prices that would in turn ultimately feed into measured headline inflation. Indeed, our baseline forecast assumes the second half of 2015 will see a firming global growth outlook.

To the extent that recent downward pressure on commodity and energy prices is tied to U.S. dollar appreciation, this makes it more challenging for the FOMC. After all, the U.S. dollar has been appreciating relative to other currencies at least in part due to expectations the FOMC was getting closer to beginning the process of normalizing U.S. interest rates. Once the FOMC does actually begin this process, which seems likely to happen at some point this year, this could easily fuel further appreciation in the U.S. dollar, thus putting further downward pressure on commodity and energy prices which, again, would push inflation further away from, rather than closer to, the Fed's 2.0 percent target rate. The chart below illustrates the relationship between the U.S. dollar and spot prices for industrial commodities (note the CRB index is shown with an inverted scale), and helps highlight what is no doubt an underlying concern for the FOMC.



While the above discussion highlights some of the factors that could test the resolve of the FOMC to raise the Fed funds rate, it still does not seem likely the ongoing miss on the inflation side of their dual mandate will dissuade the Committee. Yes, the inflation rate is closer to 0.2 percent than 2.0 percent and, yes, it is very likely that a hike in the funds rate will, at least initially, lead to U.S. dollar appreciation and, in turn, further downward pressure on headline inflation. But, given the effects of lower commodity and energy prices mainly weigh on headline inflation, the FOMC could point to core inflation as being the more relevant signal of underlying inflation pressures.

Or not. As the following chart illustrates the two main measures of core inflation are sending mixed signals while both are coming up short of the 2.0 percent mark and will likely continue to do so over coming quarters. Core inflation as measured by the Consumer Price Index has been more stable, running at an average rate of around 1.75 percent for the past several months. By contrast, core inflation as measured by the PCE deflator has actually been trending lower since peaking at 1.7 percent in July 2014. One problem, at least from an optics standpoint, is the PCE deflator is the FOMC's preferred gauge of inflation, so it isn't as though they can simply cast that aside now and tout core CPI inflation as the more relevant measure.



In reality, neither measure is, at least at present, sending an entirely accurate signal on the trend rate of inflation. (As a side note, historically core CPI inflation tends to run ahead of core inflation as measured by the PCE deflator.) For instance, measures of rent – market rents and owners' equivalent rent – account for roughly 40 percent of the core CPI and given what has been persistent, robust growth in market rents, core CPI inflation is to some extent being biased higher. Conversely, core inflation as measured by the PCE deflator is to some extent being biased downward by the combination of how health care costs are accounted for in the PCE deflator and recent institutional changes. Unlike the CPI, in which consumers' out of pocket costs are the basis on which health care costs are measured, the PCE deflator captures revenues collected by health care providers which, as the Affordable Care Act and other institutional changes have come into effect, have declined in some cases and risen at a slower rate in others. As such, health care is acting as a weight on core inflation as measured by the PCE deflator. And, were the FOMC to simply split the difference between the two measures, core inflation would be stable but nonetheless shy of 2.0 percent.

It should also be noted the impact of U.S. dollar appreciation on domestic inflation goes well beyond oil and commodities prices. When the U.S. dollar appreciates, there is downward pressure on prices of imported goods, which in turn holds down overall inflation. For instance, in the CPI data one can see a clear divergence in prices for core goods and prices for core services. Core goods prices have fallen on a year-over-year basis for 27 consecutive months, with the pace of decline picking up in 2015, and U.S. dollar appreciation has been a key factor in this trend. Conversely, prices for core services have increased at a steady rate of about 2.4 percent for some time now. Note that prices for services are little impacted by swings in the value of the U.S. dollar and service providers are, for the most part, immune from global competition. Still, it is worth noting in "normal" economic conditions core services inflation has historically run a bit above 3.0 percent. That core services inflation remains below its longer-

term norm and has shown no signs of accelerating can be seen as a sign of the degree of slack that remains in the economy.

What Does It All Mean?

In and of itself, that inflation is running well below the FOMC's 2.0 percent target rate does not preclude the Committee from hiking the Fed funds rate, particularly if the hurdle to clear is simply being "reasonably confident" inflation will move towards the target rate. The reasonably confident case can be made on the basis that as the U.S. economy continues to improve and slack is wrung out of various sectors of the economy there will naturally be upward pressure on prices. Additionally, any signs that the Chinese economy has stabilized and is on the cusp of faster growth will provide a significant lift to commodity and energy prices. At the same time, however, we have laid out reasons why one may not be so confident that inflation will meaningfully accelerate for some time to come.

Given the lack of clarity on the inflation front – and, really, why would there be any more clarity in the inflation data than in any of the other top-tier economic data – we'll make the following points that we think to be relevant in this discussion. First, though they either cannot, or simply will not, come out and say so publically, our view is the FOMC badly wants to move the funds rate target off of what, in essence, is a crisis-worthy range of 0.00-0.25 percent. While the pace of economic growth over the past six years is satisfying to few, if any, of us, the reality is the economy has made great strides over that time in the face of repeated external shocks and a much heavier (and at times hard to fathom) regulatory burden. In that sense, the performance of the U.S. economy has been underappreciated but, either way, the economy is well beyond the "crisis" stage.

One argument that has been advanced is the FOMC wants to raise the funds rate off of zero to give it "ammunition" with which to fight in the event of a renewed downturn that could result from an external shock or financial market crisis. We're not so sure on this front, as a single 25-basis point upshift in the target range would leave the FOMC with the central bank equivalent of a pop gun. It would take a series of hikes in the funds rate in order for the FOMC to have any real ammunition but such a path for the funds rate is unlikely any time soon.

Whatever the underlying rationale, the FOMC does seem intent on implementing the initial Fed funds rate hike before the end of 2015. Looking at market based expectations of the path of the Fed funds rate, the markets are pricing in a less aggressive path of the funds rate than that implied by the FOMC. It could be the markets are more focused on low inflation and, with expected rates of inflation remaining low, are divining a lower trajectory of the funds rate than that implied by current FOMC projections.

Perhaps the more relevant manner to think about how inflation may guide the FOMC's decisions on the path of the funds rate is to think of the path of the Fed funds rate over time as opposed to being focused on the timing of the initial hike. We have for some time now been making the point the path is far more important than the time of departure. But, low inflation gives the FOMC latitude to follow a path of gradual hikes in the funds rate – one at odds with a commonly held perception that once in a tightening cycle the FOMC will raise the funds rate at every FOMC meeting. That will decidedly not be the case in this cycle.

One challenge for the FOMC will be to communicate, in a manner that convinces the markets, their intent to follow such a gradual path in the coming tightening cycle. Such a communications strategy will have to go well beyond repeating the "data dependent" mantra. Given the lack of clarity in the economic data over the past several months, plotting the path of the funds rate based on the flow of data would leave one with what would look far more like a Rorschach test than a nice straight line. One important side effect from the FOMC effectively communicating their intentions to lift the funds rate only gradually would be less appreciation in the U.S. dollar than would be seen if the markets price in a more aggressive path for the funds rate. As we discussed above, a stronger U.S. dollar would put downward pressure on inflation, not to mention the adverse impact on U.S. exports, and the FOMC would like to limit any such effects.

One factor many feel would help push inflation towards the FOMC's target is faster wage growth as the labor market tightens further. This is not entirely correct: higher wages in and of themselves are not inflationary; it is wage growth in excess of productivity growth that forces firms to choose between accepting lower profit margins or raising output prices. With trend productivity growth well under one percent, this may seem a distinction without a difference. Nonetheless, any factors that will lead to faster productivity growth in turn will allow for faster wage growth without sparking inflation pressures. But, while a meaningful acceleration in productivity growth is unlikely in the near term, there remains such a degree of labor market slack that, in our view, a meaningful acceleration in wage growth is also unlikely until mid-to-late 2016. As such, wage growth is unlikely to contribute to inflation pressures in the broader economy over the near term.

As to the notion continued economic growth will naturally lead to higher inflation, let us be very clear on this point – faster economic growth does not cause inflation. It is economic growth in excess of an economy's capacity to expand that leads to rising inflation pressure. If this seems as mere semantics, rest assured it is not. At present, there is ample slack in the economy so that economic growth could accelerate without sparking inflation pressures. The problem, however, is once this slack is worked off the threshold at which inflation pressures become a concern is currently so much lower than has been the case in the past.

We have discussed this point in detail in past editions, but given current low trend rates of labor force growth and productivity growth, the U.S. economy's "speed limit" is barely over 1.0 percent. There is considerable debate over how we got to this point – we'd argue the low speed limit is to a large extent a self-inflicted wound – but, regardless of why it is so low, the reality is the low speed limit implies the FOMC must begin raising the funds rate sooner, not later, to fend off inflation. At the same time, however, it also implies the terminal, or, neutral, level of the Fed funds rate is lower than were the economy's speed limit higher. This is consistent with a sooner start to the tightening cycle and allows for a gradual path of rate hikes. In this scenario, lower long-term interest rates and a flatter yield curve could be facts of economic life for some time to come.

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ECONOMIC OUTLOOK

REGIONS

August 2015

Q1 '15 (a)	Q2 '15 (p)	Q3 '15 (f)	Q4 '15 (f)	Q1 '16 (f)	Q2 '16 (f)	Q3 '16 (f)	Q4 '16 (f)		2013 (a)	2014 (a)	2015 (f)	2016 (f)
0.6	2.3	2.4	2.8	2.5	2.5	2.6	2.5	Real GDP[1]	1.5	2.4	2.3	2.6
1.7	2.9	3.0	3.2	2.8	2.7	2.5	2.3	Real Personal Consumption[1]	1.7	2.7	3.0	2.8
								Business Fixed Investment:				
4.3	-0.4	3.2	4.7	5.2	5.5	5.8	6.2	Equipment, Software, & IP[1]	3.5	5.6	3.5	4.7
-7.4	-1.6	2.6	4.2	2.5	3.9	4.1	4.5	Structures[1]	1.6	8.1	-1.1	3.2
10.1	6.6	11.3	8.4	7.8	10.4	10.0	10.5	Residential Fixed Investment[1]	9.5	1.8	8.6	9.2
-0.1	0.8	4.7	-1.6	-1.5	-1.8	-1.2	-1.1	Government Expenditures[1]	-2.9	-0.6	0.6	-0.6
-541.1	-536.3	-540.2	-539.0	-533.5	-532.6	-532.7	-534.2	Net Exports[2]	-417.5	-442.5	-539.2	-533.2
0.978	1.144	1.152	1.104	1.141	1.173	1.203	1.237	Housing Starts, millions of units[3]	0.928	1.001	1.095	1.188
16.7	17.1	17.2	17.1	16.9	16.8	16.7	16.6	Vehicle Sales, millions of units[3]	15.5	16.4	17.0	16.7
5.6	5.4	5.3	5.3	5.2	5.1	5.0	4.9	Unemployment Rate, %[4]	7.4	6.2	5.4	5.1
2.3	2.1	2.1	1.9	1.9	1.9	1.9	1.8	Non-Farm Employment[5]	1.7	1.9	2.1	1.9
1.0	1.0	0.4	0.9	1.4	1.3	1.9	1.9	GDP Price Index[5]	1.6	1.6	0.8	1.6
0.2	0.2	0.1	0.6	1.6	1.5	1.8	2.0	PCE Deflator[5]	1.4	1.4	0.3	1.7
-0.1	0.0	0.0	0.7	2.0	1.8	2.0	2.1	Consumer Price Index[5]	1.5	1.6	0.2	2.0
1.3	1.3	1.3	1.5	1.7	1.7	1.7	1.8	Core PCE Deflator[5]	1.5	1.5	1.4	1.7
1.7	1.8	2.1	2.3	2.3	2.1	1.9	1.8	Core Consumer Price Index[5]	1.8	1.7	2.0	2.0
0.13	0.13	0.29	0.50	0.54	0.79	1.04	1.29	Fed Funds Target Rate, %[4]	0.13	0.13	0.26	0.91
1.97	2.17	2.32	2.42	2.49	2.72	2.83	2.88	10-Year Treasury Note Yield, %[4]	2.35	2.54	2.22	2.73
3.73	3.83	4.10	4.14	4.17	4.32	4.44	4.50	30-Year Fixed Mortgage, %[4]	3.98	4.17	3.95	4.36
-2.5	-2.2	-2.2	-2.4	-2.4	-2.4	-2.5	-2.5	Current Account, % of GDP	-2.4	-2.3	-2.3	-2.4

a = actual; f = forecast; p = preliminary

Notes:
1 - annualized percentage change
2 - chained 2009 $ billions
3 - annualized rate
4 - quarterly average
5 - year-over-year percentage change

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