## ECONOMIC OUTLOOK



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## U.S. Consumer Spending: Hiding In Plain Sight?

With the release of the BEA's initial estimate of the Q4 2015 GDP data, another year is in the books; at least for now, as the initial estimate of Q4 GDP will undergo two rounds of revision. As things now stand, real GDP grew by 2.4 percent in 2015, and we don't expect the pending revisions to the Q4 data to change that much, if at all. This would make 2015 the second consecutive year with real GDP growth of 2.4 percent, above the average growth rate posted since the end of the 2007-09 recession but still well below historical norms. Each reader is of course free to decide which way of viewing these results works for them.

As for us, we faithfully adhere to our "the numbers are what the numbers are" mantra, drilled into us many years ago by a wise old economist. Instead of trying to decide whether the numbers are good or bad or how we feel about them, we prefer to spend our time trying to understand why the numbers are what they are. This understanding is a necessary, but by no means sufficient, condition for being able to project where the economy is going. While looking ahead was the theme of last month's edition – our 2016 outlook – this month we look behind us since the (preliminary) full-year 2015 GDP data are now available.

More specifically, our focus is on what were two of the main stories of the U.S. economy in 2015, one of which was obvious, for many painfully so, and one of which was simply just missed by many. The obvious story of the economy in 2015 was energy, though how that story played out was a surprise to many. The less obvious story of the economy in 2015 was consumer spending. Clearly, the two are at least to some degree connected, as sharp declines in energy prices have indeed freed up considerable cash for U.S. consumers to deploy elsewhere.

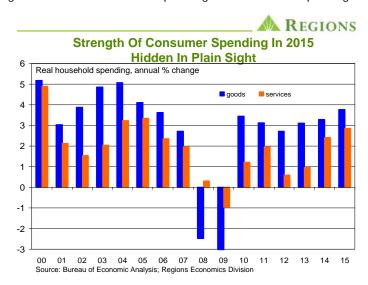
Beyond that, however, the story lines got muddled. When energy prices began to fall sharply at the tail end of 2014, the initial reaction of many analysts was to ramp up estimates of growth in consumer spending. As we discussed in our March 2015 *Monthly Economic Outlook* we thought estimates of the increase in consumer spending due to lower energy prices were significantly overstated. That said, we still pointed to what we expected would be solid growth in real income and real spending in 2015. We, of course, then spent the rest of the year becoming increasingly annoyed, not by the fact that this is exactly how the year played out but by the fact that this was a story that was widely missed by many analysts and in many media accounts.

Regardless of the ultimate boost to consumer spending, the negative effect of low energy prices made itself quite visible in many aspects of the economic data over the course of 2015, most notably in the data on employment and capital spending.

These were the direct effects, but clearly there were secondary effects that, while much harder to quantify, amplified the hit to economic growth in 2015 emanating from the energy sector.

We think each of these stories is worth analyzing in more detail, if for no other reason than how they play out from this point on will go a long way in determining the economy's overall growth rate this year. Right now, it's looking like pretty much of a draw, as we expect growth in real consumer spending to be slower this year than last, but at the same time expect the cutbacks in capital spending stemming from the energy sector to be less severe and less of a weight on growth in overall capital spending.

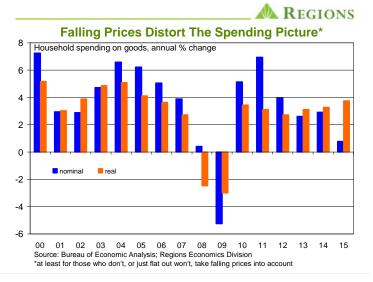
We'll start with the consumer spending story, and we'll start by telling you 2015 saw the fastest growth in real, i.e., inflation adjusted, consumer spending since 2005. If you find yourself wondering how it is we can claim that story to have been largely missed, the key words in the prior sentence are "inflation adjusted." The disconnect seems to stem from the fact that for most people the monthly report on retail sales is their main source of information about consumer spending. Which is fine except for two points: first, retail sales account for less than one-third of consumer spending as measured in the GDP data; and, second, retail sales are reported in nominal terms and for several months now falling prices for goods – by no means limited to gasoline – have held down reported growth in nominal spending.



The chart above shows growth in real consumer spending broken out into goods and services. Spending on services, which is not captured in the monthly retail sales reports, accounts for roughly two-thirds of all consumer spending as reported in the GDP data. As seen in the chart, growth in real expenditures on both goods and services accelerated in each of the past three years, which is clearly at odds with the by now tiresome "what's wrong with U.S.

consumers?" refrain of which certain analysts never seem to tire. To be fair, another source of confusion as to the state of U.S. consumers may be the state of retailers, at least brick & mortar retailers. There has of late been a steady stream of news about retailers shuttering stores that are failing to generate enough sales to justify keeping them open. That, however, is not so much a reflection of how much consumers are spending as it is a reflection of how they are spending – steady growth in the incidence of on-line shopping is contributing to a steady contraction in the physical retail landscape.

To illustrate our point about how price effects – falling goods prices almost across the board – are clouding the view of consumer spending, the chart below shows the annual percentage change in household spending on goods in both nominal (not adjusted for price changes) and real (adjusted for price changes) terms. As seen in the chart, inflation adjusted spending on goods grew by almost four percent in 2015, the fastest growth since 2005.



That growth in real spending on goods has grown at a faster rate than nominal spending on goods in each of the past three years is a reflection of what has been a weak pricing environment for goods producers. As can be deduced from the above chart, the rate at which goods prices are falling increased significantly in 2015, hence the trivial increase in nominal spending on goods. The primary culprits behind this faster rate of decline in goods prices have been sharp declines in retail gasoline prices and a marked appreciation of the U.S. dollar, which has led to declining prices for non-energy goods imported into the U.S. Lower prices for gasoline and imported goods are two key factors holding down measured headline inflation.

Another thing we often hear in discussions of consumer spending is that, sure, consumers are spending, but only on cars. It may seem that way, as 2015 was a banner year for motor vehicle sales, and there is no doubt motor vehicles were – bad pun alert – a key driver of growth in consumer spending in 2015. On a nominal basis, growth in spending on motor vehicles accounted for just over one-third of growth in consumer spending on durable goods but only about four percent of growth in total consumer spending. Here, too, there are price effects in play,

such that after accounting for price effects growth in spending on motor vehicles accounted for a smaller share of growth in spending on consumer durable goods. But, 2015 also saw accelerating growth in consumer spending on household furnishings & appliances, recreational goods & vehicles, and other consumer durables – on both a nominal and real basis.

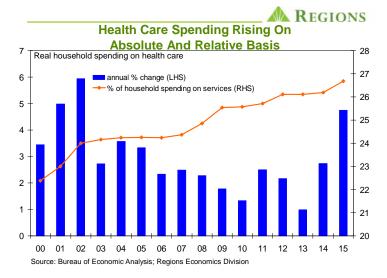
Hopefully by now we've gotten our main point across – there is considerably more breadth and vigor in consumer spending on goods than one would imagine to be the case based on the monthly retail sales reports. Or at least based on listening to those whose analysis goes no further than the monthly retail sales headline. But, as noted above, spending on services accounts for the bulk of total consumer spending as measured in the GDP data. That caveat – "as measured in the GDP data" – is an important one when it comes to spending on services, and is where analyzing the data on consumer spending gets a bit tricky.

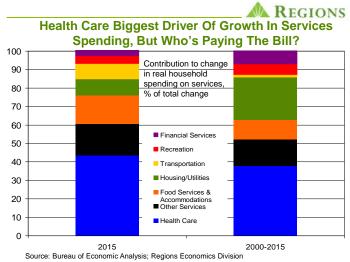
Surely you have heard, likely many times, it said that "consumer spending accounts for 70 (or some similar number) percent of the U.S. economy." We won't go so far as to call this a fantasy, but it is a GDP accounting convention, and either way it is not actually the case. There are three issues here, one of which is there are expenditures made not by, but on behalf of, households by what are classified as nonprofit institutions serving households. These expenditures appear in measured consumer spending on services. The second issue is measured consumer spending on services includes expenditures financed by thirdparty payers on behalf of households, the most notable example of which is health care expenditures covered by health insurance or financed by government programs. Third, measured consumer spending on services includes various imputed purchases that do not actually represent dollar outlays by households. Note these issues do not arise in accounting for spending on goods.

The first issue is, at least for our purposes here, easily fixed as expenditures made by nonprofit institutions serving households are reported as a separate line item and deducting them leaves household expenditures, which is the basis of our analysis here. The latter two issues, however, cannot be dispensed with as easily and, as such, tend to confuse matters. One particular area in which analyzing the data on consumer spending is somewhat tricky is health care, as there is a wide gap between actual out of pocket payments by consumers and total revenue received by health care providers, the latter of which is the basis on which health care expenditures are presented in the consumer spending data in the GDP accounts.

This has become an increasingly relevant topic since the implementation of the Affordable Care Act (ACA), which has increased the consumption of health services by expanding the pool of individuals for whom insurance covers the bulk of actual expenditures. As noted above, these expenditures are booked as household expenditures in the GDP data on the basis of total revenue received by providers as opposed to out of pocket expenditures by consumers. This is easily seen in the data on spending on household services, with health care far and away the largest driver of growth in such spending. As such, some analysts have taken to brushing off growth in total consumer spending on the basis that it's all going to health care and, after paying for that, consumers have little to spend on anything else.

There is a valid point somewhere, but that consumers are paying for health care at the expense of all other forms of consumption just isn't it. To help put this in perspective, consider the following two charts, the first of which shows growth in real household spending on health care – as measured in the GDP data – and such spending as a share of overall household spending on services. The second chart breaks down growth in real household spending on services, for 2015 in the first column and for the 2000-15 period in the second column, on an itemized basis.





As seen in the top chart, growth in health care expenditures has accelerated sharply since the implementation of the ACA, but it is also the case that health care's share of overall services spending has been rising for some time. As a side note, the earliest years shown in the chart were years in which employer paid premiums on employee health care coverage were rising rapidly which, in another illustration of the measurement issues at play here, was reflected in the growth of household spending on health care.

The bottom chart breaks down growth in household spending on services by source. Over the 2000-15 period growth in health care spending accounted for 38 percent of overall growth in

spending on services, while in 2015 health care accounted for 44 percent of overall growth in spending on services. It is on this basis that some analysts are suggesting health care spending is crowding out other forms of consumer spending, but this is simply not the case. In reality, the vast majority of what is characterized as household spending on health care is financed by insurance or government programs while only a relatively small share comes directly out of pocket. To be sure, there are many households in which out of pocket health care expenses are a burden and do crowd out other forms of spending, but our point here is that, in the aggregate this, is not the case.

Clearly, in 2015 households had ample room to increase discretionary spending – growth in transportation spending to a large extent reflected rising spending on air travel, hotel operators enjoyed a stellar year in terms of occupancy rates and revenue growth, spending on dining out rose sharply, and, while the force may have awakened for movie theater operators in Q4 2015, it was felt in many other areas of spending on recreation services during the entire year. Consumers have seen purchasing power rise significantly due to both rising nominal income (underpinned by steadily improving labor market conditions) and low inflation (largely due to lower energy and goods prices). This was clearly reflected in the growth of real consumer spending in 2015. In 2016 consumers will see another solid gain in real personal income, even if faster – but still low – inflation means real personal income growth won't be as strong as in 2015.

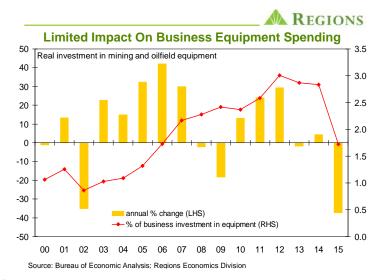
Yes, there are clearly measurement issues when it comes to how health care spending is accounted for in the GDP data, but those issues are not, or at least should not be, an insurmountable obstacle to proper analysis of trends in consumer spending. The same can be said for price effects – it is, let's say, curious, that some purporting to offer an analysis of consumer spending manage to overlook such an important factor. This simply goes to show you can make the data say pretty much what you want it to say, whether by manipulating it or simply ignoring parts of it. It also illustrates a point we frequently make – the headline numbers seldom, if ever, tell the real story but the story is still there, even if sometimes it takes some looking in order to find it.

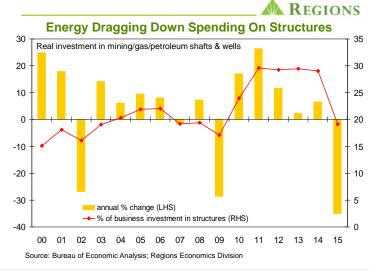
## Little Energy For Capital Spending In 2016?

Another significant story in 2015 was easier to find, indeed, one could hardly miss it. The precipitous decline in energy prices caused considerable pain for energy producers, energy service firms, and manufacturers of energy related equipment and machinery, as reflected in cutbacks in capital spending and payrolls. Those are just the direct effects, as the ripple effects through other parts of the economy, including the banking system, the credit markets, and state government budgets, have yet to fully manifest themselves.

Our focus here is on business investment spending and the impact of cutbacks in energy related capital spending. While the downside of this story was seen in 2015, the story actually began years ago when such spending was ramping up. Indeed, we have for some time now held the position that over the course of the

current expansion there has been underinvestment in structures, equipment, and machinery in the business sector of the economy, as such spending as a share of overall GDP has lagged below historical averages. But, in what growth in business investment there was, the energy sector played an outsized role and we are seeing a reversal of that effect on the way down.





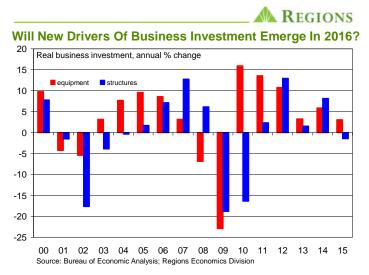
The GDP data on business investment spending provide some details that allow us to isolate the effect of energy-related business spending. The direct effects apparent in the GDP data do not likely tell the full story, but it is difficult to quantify secondary effects with any degree of confidence, so we limit ourselves here to the direct effects. These are shown in the two charts above, the first showing real business spending on mining and oilfield equipment as a share of total business spending on equipment, as well as mining/oilfield's share of the total. The second chart does the same for real business spending on energy related structures and total business spending on structures.

As seen in the charts, energy related spending clearly had a larger impact on overall spending on business structures than on business equipment. At its peak level in 2014, real spending on mining/oilfield equipment accounted for just 2.8 percent of total

real business spending on equipment. This of course does not mean the 38 percent decline in real spending on mining/oilfield equipment seen in 2015 didn't hurt, it clearly did, particularly for producers of such equipment.

The impact of energy has been felt much more acutely in real business spending on structures. Rapid and sustained growth in real spending on energy related structures in the years following the 2007-09 resulted in such spending accounting for roughly 30 percent of all real business spending on structures over the 2011-14 period. But, in 2015 as energy prices were plummeting, so too was real spending on energy related structures, which fell by 35 percent, taking its share of total real business spending on structures down to under 20 percent. Total real business spending on structures declined by 1.5 percent in 2015.

On the whole, it is clear sharp cutbacks in energy related spending were a drag on overall business investment in 2015. That will most likely be the case again in 2016, though likely to a lesser extent. And, it is an open question as to the extent energy related spending would ramp up in the event energy prices rise in 2016. For instance, our baseline forecast includes a modest rebound in oil prices over the second half of this year, but that is largely predicated on what we expect to be signs of firming global economic growth, and even then we look for oil prices to end the year below \$50 per barrel. The question is, should our forecast play out, how much room on the upside is there for new energy investment, particularly to the extent larger, more efficient producers have taken over operations of smaller, less efficient producers that did not survive this period of low prices.



More broadly, the downturn in energy related investment has been an unwelcome reminder of how thin total business investment spending has been in recent years – save for the tax incentives that supported such spending in 2010-11. We have argued underinvestment on the part of firms is a key factor behind what is an anemic trend rate of labor productivity growth. This, in turn, has adverse impacts throughout the economy. Clearly, energy will not be the driving force behind business investment spending it has in the past. What, if anything, will take its place is a question we will be looking for an answer to over the course of 2016.

## ECONOMIC OUTLOOK A REGIONS February 2016



February 2016

| Q3 '15 (a) | Q4 '15 (p) | Q1 '16 (f) | Q2 '16 (f) | Q3 '16 (f) | Q4 '16 (f) | Q1 '17 (f) | Q2 '17 (f) |  | 2014 (a) | 2015 (p) | 2016 (f) | 2017 (f) |
|------------|------------|------------|------------|------------|------------|------------|------------|--|----------|----------|----------|----------|
| 2.0        | 0.7        | 2.0        | 2.6        | 2.5        | 2.4        | 2.4        | 2.4        | Real GDP <sup>1</sup>                          | 2.4      | 2.4      | 2.1      | 2.3      |
| 3.0        | 2.2        | 2.9        | 2.9        | 2.5        | 2.3        | 2.1        | 2.2        | Real Personal Consumption <sup>1</sup>         | 2.7      | 3.1      | 2.7      | 2.2      |
|            |            |            |            |            |            |            |            | Business Fixed Investment:                     |          |          |          |          |
| 5.5        | -0.9       | 3.4        | 3.8        | 3.8        | 3.7        | 3.5        | 3.6        | Equipment, Software, & IP <sup>1</sup>         | 5.6      | 4.1      | 3.0      | 3.6      |
| -7.2       | -5.2       | 4.1        | 1.2        | 1.0        | 2.2        | 3.4        | 5.7        | Structures <sup>1</sup>                        | 8.1      | -1.5     | -0.1     | 3.3      |
| 8.2        | 8.2        | 6.6        | 9.0        | 10.2       | 14.3       | 11.5       | 9.8        | Residential Fixed Investment <sup>1</sup>      | 1.8      | 8.7      | 8.6      | 10.7     |
| 1.8        | 0.7        | 0.8        | 0.7        | 0.2        | 0.1        | 0.9        | 0.8        | Government Expenditures <sup>1</sup>           | -0.6     | 0.8      | 0.9      | 0.6      |
| -546.1     | -566.5     | -570.3     | -580.3     | -585.3     | -592.1     | -599.2     | -605.3     | Net Exports <sup>2</sup>                       | -442.5   | -547.1   | -582.0   | -606.3   |
| 1.158      | 1.133      | 1.153      | 1.156      | 1.196      | 1.232      | 1.262      | 1.290      | Housing Starts, millions of units <sup>3</sup> | 1.001    | 1.107    | 1.184    | 1.308    |
| 17.8       | 17.8       | 17.6       | 17.4       | 17.2       | 17.0       | 16.7       | 16.5       | Vehicle Sales, millions of units³              | 16.4     | 17.3     | 17.3     | 16.4     |
| 17.0       | 17.0       | 17.0       | 17.1       | 17.2       | 17.0       | 10.7       | 10.5       | vernere sures, minoris or units                | 10.1     | 17.5     | 17.5     | 10.1     |
| 5.2        | 5.0        | 4.9        | 4.9        | 4.8        | 4.8        | 4.7        | 4.6        | Unemployment Rate, % <sup>4</sup>              | 6.2      | 5.3      | 4.8      | 4.6      |
| 2.0        | 2.0        | 1.9        | 1.8        | 1.7        | 1.6        | 1.5        | 1.5        | Non-Farm Employment⁵                           | 1.9      | 2.1      | 1.7      | 1.4      |
| 0.9        | 1.1        | 1.4        | 1.4        | 1.5        | 1.8        | 1.8        | 1.8        | GDP Price Index <sup>5</sup>                   | 1.6      | 1.0      | 1.5      | 1.7      |
| 0.3        | 0.4        | 1.0        | 0.9        | 1.2        | 1.7        | 2.2        | 2.3        | PCE Deflator <sup>5</sup>                      | 1.4      | 0.3      | 1.2      | 2.2      |
| 0.1        | 0.4        | 1.0        | 0.7        | 1.0        | 1.6        | 2.4        | 2.5        | Consumer Price Index <sup>5</sup>              | 1.6      | 0.1      | 1.1      | 2.3      |
| 1.3        | 1.4        | 1.5        | 1.5        | 1.6        | 1.7        | 1.8        | 1.8        | Core PCE Deflator <sup>5</sup>                 | 1.5      | 1.3      | 1.6      | 1.9      |
| 1.8        | 2.0        | 1.9        | 1.8        | 1.9        | 1.9        | 2.0        | 2.0        | Core Consumer Price Index <sup>5</sup>         | 1.7      | 1.8      | 1.9      | 2.0      |
|            |            |            |            |            |            |            |            |  |          |          |          |          |
| 0.13       | 0.17       | 0.38       | 0.41       | 0.66       | 0.88       | 0.91       | 1.16       | Fed Funds Target Rate, % <sup>4</sup>          | 0.13     | 0.14     | 0.58     | 1.28     |
| 2.22       | 2.19       | 1.97       | 2.05       | 2.15       | 2.28       | 2.51       | 2.69       | 10-Year Treasury Note Yield, % <sup>4</sup>    | 2.54     | 2.14     | 2.11     | 2.71     |
| 3.95       | 3.90       | 3.72       | 3.70       | 3.79       | 3.91       | 4.10       | 4.29       | 30-Year Fixed Mortgage, % <sup>4</sup>         | 4.17     | 3.85     | 3.78     | 4.32     |
| -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