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This Month: Short Takes

From time to time we like to step back and revisit topics we've touched on in the past. Sure, we know what you're thinking, but, no, we really haven't run out of ideas on how to fill four pages each month. We do so partly because some topics, such as our annual holiday sales forecast, merit a follow-up at some point down the road. Or, given the ongoing changes in our distribution, some people will have come on since the last time we touched on a particular topic, and we think these periodic refreshers help bring new readers up to speed. It is also the case that sometimes our long-time readers find this useful as well, as they may have forgotten some of the how or why behind our analysis. As for those who would simply like to forget, well, we can't really do much for them other than to make that more difficult. In any event, in what follows we'll revisit some topics that have most been on our minds.

2017 Holiday Sales – Ho Ho Whoa! Each November we present our holiday sales forecast, an annual exercise in which we take the pulse of the U.S. consumer, conduct extensive research, apply sophisticated statistical analysis, draw on our years of professional experience, and then basically guess how much consumers will spend over the holiday sales season. Though there are as many definitions of holiday sales as there are analysts offering forecasts, our definition is combined November and December retail sales excluding motor vehicle, gasoline, building materials, restaurant, grocery store, and drug store sales.

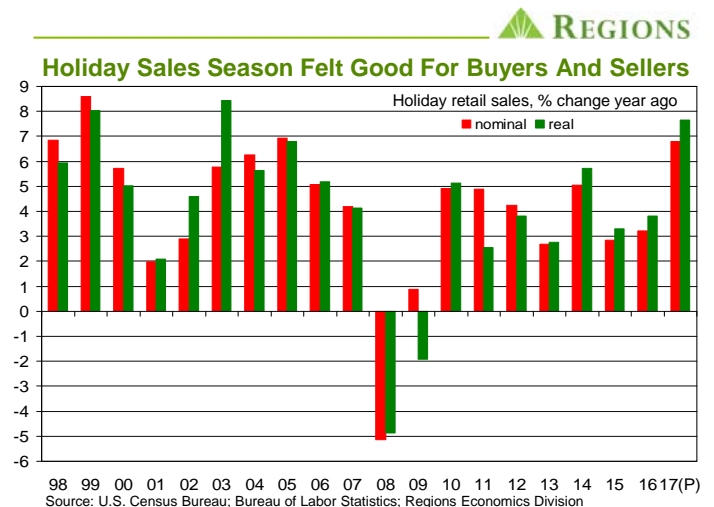
You may find yourself wondering why, given that it's February and the holiday season is well behind us, we're bringing this up now. Two reasons – first, sure, the holiday season may be over, but the bills are still coming so, at least for many holiday shoppers, holiday sales are still on your mind. Second, and more importantly, with the initial estimate of December retail sales now in hand, we are only now able to make an initial assessment of our forecast.

Our forecast was that nominal holiday sales would be up by 4.9 percent relative to the 2016 holiday sales season, and we noted that, thanks to persistent goods price deflation, the holiday sales season would feel better for consumers than for retailers. Taking price changes into account, our forecast anticipated a 5.7 percent increase in real holiday sales. At the time, our forecast seemed a bit on the aggressive side, but in hindsight it looks to have been more on the timid side. According to the preliminary data, nominal holiday sales were up by 6.8 percent (the largest increase since 2005) while real holiday sales were up by 7.7 percent (the largest increase since 2003). So, in other words, the 2017 holiday sales season felt pretty darn good for both buyers and sellers.

Our holiday sales forecast was predicated on consumers having both the willingness and the wherewithal to spend. Ongoing improvement in labor market conditions, steadily rising household net worth (don't dismiss the significance of rising housing equity

making a more sizeable contribution to rising net worth over the past few quarters than had been the case earlier in the cycle), still-low interest rates, favorable pricing, and a friendlier consumer credit environment added up to consumers having the means to spend during the holiday season. At the same time, consumer confidence was at a 17-year high in November and, even after a modest decline, remained notably elevated in December.

These factors all contributed to growth in nominal holiday sales trouncing our forecast. Our forecast of the price component also missed the mark, albeit only slightly. We expected the November-December average of the core goods index of the CPI, which we use to account for changes in goods prices, to have fallen by 0.72 percent relative to the same period of 2016. The actual decline was 0.81 percent, the largest such decline since 2003.



As seen in the above chart, 2017 marked the fifth consecutive year in which the increase in real holiday sales exceeded the increase in nominal holiday sales. This is a testament to the persistence of goods price deflation – note that while not as severe as in the 2001-03 period, goods price deflation has been far more persistent in the current cycle. Or, as we've often put it, thanks to falling prices of consumer goods, retailers have been selling more but enjoying it less. But, at least in the 2017 holiday sales season the sizeable jump in nominal sales helped cushion the impact of falling goods prices for many retailers.

As expected, online sales staged another stellar performance in the 2017 holiday sales season. Our forecast anticipated a 14.7 percent increase in online sales on an inflation adjusted basis, and the preliminary data show a 14.6 percent increase. But, while our forecast had online sales accounting for 27.3 percent of total holiday sales (up from 25.0 percent in 2016), that overall sales were so much better than our forecast anticipated means online sales accounted for "just" 26.6 percent of total holiday sales.

Sure, 26.6 percent is a big number, but it isn't as big as 100.0 percent, which we point out for the benefit of the "all retail is going dark" geniuses who continue to cling to a narrative so completely nonsensical that it hardly seems worthwhile pointing out how nonsensical it is. In-store sales were stronger during the 2017 holiday sales season than had been the case in a number of years, with furniture stores, electronics stores, apparel stores, and department stores all posting solid increases from 2016 sales.

Another way to gauge the health of in-store sales is to look at holiday-related hiring in retail trade. As we discussed in our holiday sales outlook, we measure seasonal hiring by taking the change in not seasonally adjusted retail trade payrolls; for consistency, we exclude hiring in those categories excluded from our measure of holiday sales. In a typical year, the seasonal hiring period for retail begins in October, kicks into overdrive in November, then tapers off in December. It is proper to use the not seasonally adjusted data in order to have a valid comparison from one year to the next, which we show in the following chart.



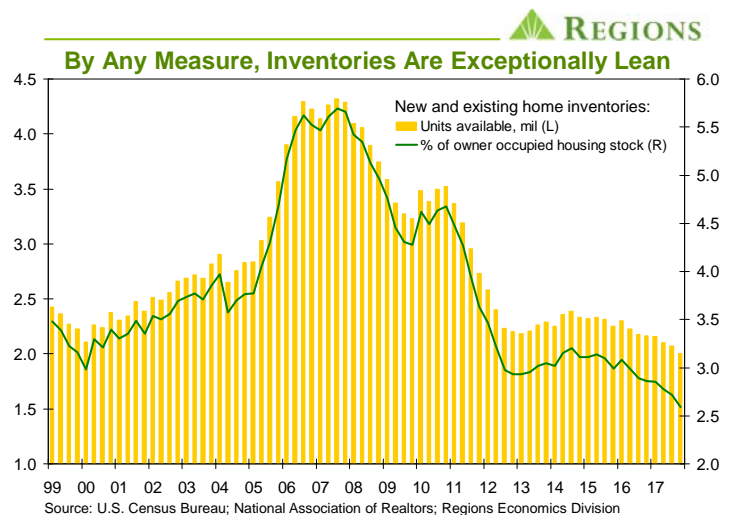
Our measure of holiday hiring in retail trade got off to a blistering start in 2017, with combined October-November hiring topping 582,000 jobs, the highest combined total in the life of the data, which go back to 1990. One possible factor was this year's early Thanksgiving, which meant retailers would have wanted to be fully staffed up earlier than is typically the case. This could also help account for why hiring more or less fizzled out in December, with just over 45,000 hires, the lowest on record for our adjusted series. On the whole, then, retail hiring for the 2017 holiday sales season was in line with that of recent years, even though holiday sales turned out to be far stronger in 2017 than in the recent past.

Given that online sales have played an increasingly prominent role in consumer spending, particularly around the holiday season, one has to account for holiday hiring in the warehousing and delivery segment. The same seasonal patterns that prevail in retail hiring also hold here, so we take the same approach to examining holiday hiring, i.e., looking at the change in not seasonally adjusted payrolls from October through December. After record-high hiring in the 2016 holiday season, hiring amongst warehousing and delivery operations fell a bit short in 2017, at just under 275,000 jobs for the three-month period. One factor that could be in play here is, given how strong online sales are all year round these

days, it may simply be that warehousing and delivery operations are more heavily staffed up throughout the year, thus lessening, at least a bit, the need to staff up during the holiday season. In any event, come January, holiday season workers drop from the payrolls, and this year was no exception, with January seeing our measure of retail payrolls fall by more than 562,000 jobs and a 184,000 job decline in warehousing/delivery payrolls (these are the not seasonally adjusted changes for January).

Housing Market Update – You Can't Buy What's Not For Sale: We have pegged inventories, or the lack thereof, as the main housing market storyline to follow in 2018. This comes as no surprise to regular readers of our monthly takes on the home sales data, in which we, for some time, have pointed to extraordinarily lean inventories as a brake on the pace of home sales. Still, even we were taken aback by the inventory detail in the reports on December new and existing home sales.

The report on December existing home sales shows the number of listings of existing homes for sale fell to the lowest level on record in the life of the data. Admittedly, that life is a relatively short one, at least in terms of economic data, as the inventory data provided by the National Association of Realtors date back to only 1999. Even so, we know "low" when we see it and, no matter what the time horizon, "low" just doesn't do justice to how barren the existing homes market has become. And, while the level of new home inventories has improved over recent months, it is still far below that which could reasonably constitute "normal."

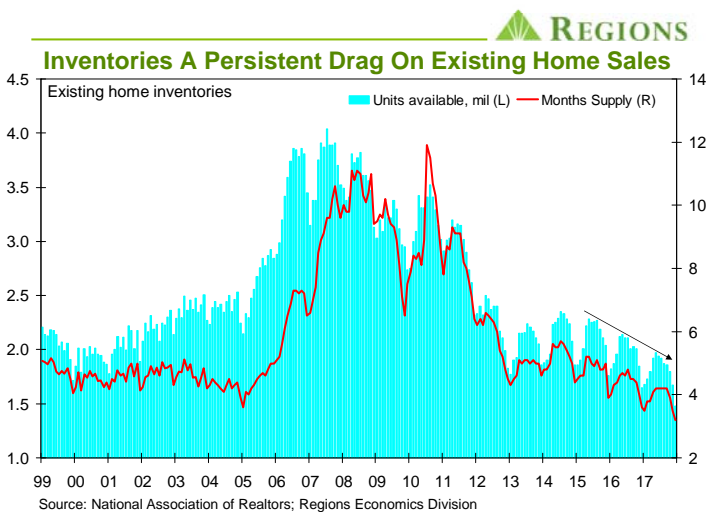


The above chart shows combined inventories of new and existing homes for sale, again subject to the constraint that the data on existing home inventories only go back to 1999. In order to lend some perspective to just how low inventories are at present, we've scaled the level of total inventories to the level of the owner occupied housing stock. In other words, not only are inventories low on an absolute basis (as shown by the gold bars), they are strikingly low when scaled to the size of the owner occupied housing stock (as shown by the green line).

At year-end 2017 the owner occupied housing stock was 10.8 percent larger than it was at the start of 1999, yet the level of total inventories of homes for sale was 17.5 percent lower. The primary culprit here is existing home inventories and, even if they bounce

off of December's record low as we anticipate, we do not expect 2018 to bring any meaningful degree of relief from the supply crunch that has been a persistent drag on existing home sales.

The chart below isolates inventories of existing homes for sale, which we show here on a not seasonally adjusted basis. Doing so allows us to illustrate that while the typical seasonal patterns, i.e., inventories tend to rise during the spring/summer months and tend to fall during the fall/winter months, remain intact, the level of listings continues to trend lower. As seen in the chart, 2017 marked the third consecutive year in which the seasonal peak in listings was lower than that of the prior year. As of December 2017 the months supply metric, which scales inventories to the current month's sales pace, stood at 3.2 months, considerably below the 6.0 months seen as indicating a balanced market. As seen in the chart, the last time the months supply metric was even in the same neighborhood was early 2005, the difference being that back then an unsustainably high sales pace pushed months supply down, while at present it is a dearth of inventories that is doing so.



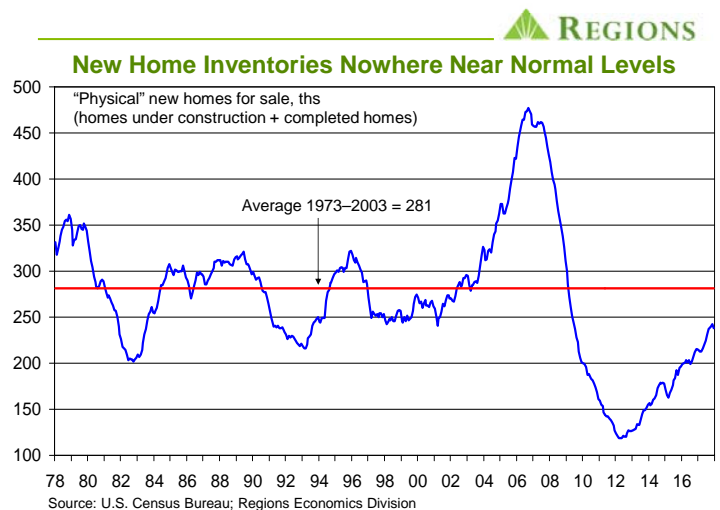
As we've discussed in our monthly takes on existing home sales and in more detail in our May 2017 *Monthly Economic Outlook*, a significant number of existing homes have been siphoned off to the rental market thanks to the post-recession rise of single family REITs. These REITs snapped up, at heavily discounted prices, large numbers of single family homes in some stage of mortgage distress and placed them on the rental market. As such, single family homes now comprise a much larger share of the renter occupied housing stock than historically had been the case. With rapid rent growth providing steady cash flows and robust price appreciation generating capital gains, single family REITs are enjoying the best of both worlds. There is little reason to think they will begin to pare down their stocks of single family homes any time soon.

An additional constraint on existing home inventories over the past several years has been equity, either negative equity or only marginally positive equity positions for significant numbers of homeowners. Those in such positions are unable to sell their home without writing a check to make up for the lack of equity, which has acted as a drag on home sales. To be sure, the incidence of negative equity has fallen significantly over recent years – data from CoreLogic show that in 2009 just over 25 percent of all

mortgaged households were in a negative equity position, but as 2017 drew to a close that share had fallen to 4.88 percent.

Still, the benefits of rising housing equity have, to some degree, been concentrated amongst a group of larger metropolitan areas, as opposed to being widely dispersed, in keeping with patterns of house price appreciation. Moreover, given that it was not until Q1 2017 that aggregate housing equity returned to its pre-recession peak, there are still sizeable numbers of homeowners with only a marginally positive equity position, which acts as a constraint on home sales. Further increases in house prices over the course of 2018 will generate additional housing equity, thus putting an increasing number of homeowners in a position to sell their home.

At the same time, however, higher mortgage interest rates could have the opposite effect. Specifically, as mortgage interest rates climb, greater numbers of current homeowners will be “locked in” place, even if of their own choice, by mortgage interest rates that may simply be too good to give up. In other words, anyone who either originated or refinanced a mortgage loan during the era of sub-four percent mortgage interest rates (basically from late-2014 through late-2016) might very well be hesitant to trade homes and, in the process, commit to a higher mortgage interest rate. And, for many prospective buyers, especially first-time buyers, higher mortgage interest rates on top of rapid house price appreciation may mean buying a home is simply not affordable.



The picture in the new homes market is better, but not by much. As seen in the above chart, inventories of new homes for sale have steadily climbed from what was a historic low in 2012 but remain considerably below the longer-term norm – which, unlike our earlier measure of total inventories, we have not scaled to the size of the market. Note that our chart shows only what we refer to as “physical” new homes for sale, i.e., for-sale units either at some stage of construction or after being completed. The inventory number generally reported in media accounts, however, is larger, as it also includes homes which were for sale prior to construction having been started. We think that adding such homes artificially boosts inventory counts, thus giving a distorted picture of supply.

This is not a trivial point – units on which construction had not yet started accounted for roughly 19 percent of reported new home

inventories at year-end 2017, an unusually high share. The same is true for sales – as we have pointed out in our monthly takes on new home sales, sales of units on which construction had not yet started have, for some time now, accounted for an atypically high share of total new home sales. As such, builders are contending with growing backlogs of unfilled orders, in keeping with what has been our broader point that the issues in the housing market have mostly been on the supply side, not the demand side.

Builders have been constrained by shortages of labor and buildable lots and encumbered by entitlement processes that, in many markets, are more costly and onerous than has been the case in the past. Given that new home sales are booked at the signing of the sales contract and that contracts can be signed at any stage – prior to construction beginning, during construction, or after construction is complete – builders are booking a higher than normal share of sales in the pre-construction phase, while overall sales remain far short of historical norms.

This is not necessarily a bad thing for builders, particularly as they have been more focused on the higher ends of the price range than has been the case in the past. At some point, however, high-end demand will begin to wane. Admittedly we've been a bit surprised at how sturdy this demand has been, though we suspect higher mortgage rates might help change this. Should higher mortgage interest rates appreciably curb demand for higher priced homes, it seems reasonable to assume builders will simply migrate down the price range and tap into pent-up demand for lower priced homes.

A key caveat, however, is that rising labor and materials costs mean builders' margins would be squeezed from both ends (i.e., costs and sales prices), while at the same time builders will get no relief from entitlement costs in those markets in which they have become a constraint on more moderately priced construction. That builders at present are sitting on considerable backlogs of unfilled orders, i.e., homes that have been sold but not yet built, means it could take some time before the effects of higher mortgage interest rates and higher materials prices become apparent in the data on single family construction.

As for the data on home sales, it seems that in any given month both the reporting and analysis focuses solely on the number of sales. What tends to get lost in the shuffle, however, is the extent to which supply side constraints have weighed on sales, of both new and existing homes, over the past several quarters. Hopefully our discussion here helps shed at least a little light on why, for some time now, we've placed so much emphasis on inventories in our analysis of the housing market. We're certainly no experts but, then again, it doesn't take an expert to know that the present dynamic – limited inventories, robust price appreciation, and rising mortgage interest rates – cannot endure indefinitely. The question is which gives first, supply or demand.

January Employment Report – Noisy Report, Rock Solid Labor Market: In a sense, this January's employment report was much like any other January employment report, i.e., beset by a high volume of noise that makes it difficult to interpret the data. Benchmark revisions to the establishment survey, updated population controls in the household survey, and harsh winter weather all frequently leave their mark on the January report of

any given year. As such, in any given year January is the month for which it is the most difficult to properly seasonally adjust the raw data. In short, the January employment report is always somewhat of an analytical challenge.

The data for this January show total nonfarm payrolls rose by 200,000 jobs, marking a record 88th consecutive month of job growth, while the benchmark revisions put growth in nonfarm employment at 2.288 million jobs in 2017. The household survey data show the unemployment rate held at 4.1 percent. Even allowing for the noise in the data, the bottom line, at least in our view, continues to be that the labor market is rock solid.

There were, however, two data points in the January employment report that stood out. One is the 0.3 percent increase in average hourly earnings that left them up 2.9 percent year-on-year, the largest such increase since April 2009. The other is the two-tenths of an hour decline in the average length of the workweek. A good deal was made of the former – particularly in the financial markets, which saw equity prices tumble and interest rates spike higher – while the latter got less attention. We'd suggest, however, not reading too much into either of these data points.

We estimate that higher minimum wages in many states added just over one-tenth of a percentage point to the monthly change in average hourly earnings, which were also lifted by voluntary bumps in entry level wages by many firms. More significantly, the decline in hours worked pushed average hourly earnings higher. Neither factor, however, is a clear signal of labor market tightness, particularly as the hours worked effect should reverse in the February data. We say this because weather (the "bomb cyclone") and illness (the flu) were the primary forces behind widespread declines hours worked across private sector industry groups.

It is worth noting that, even with the gain in average hourly earnings, aggregate wage and salary earnings – the product of the number of people working, the number of hours they work, and how much they earn for each hour worked – actually declined in January thanks to the shorter workweek. What never ceases to amaze us, however, is how many people focus solely on average hourly earnings when it is growth in aggregate earnings that really matters both in a macro sense, as a main driver of growth in consumer spending, and in a micro sense, as firms manage total labor costs, not hourly labor costs.

In any event, while the wage details of the January employment report seem to play straight into the narrative that the FOMC will be thrust into boldness by rapidly rising wages and prices, we don't see it that way. By no means are we saying the labor market hasn't tightened considerably, only that it hasn't tightened to the degree implied by the wage details of the January employment report. Our baseline forecast anticipates three 25-basis point hikes in the Fed funds rate in 2018, the first coming at the March FOMC meeting. This has been the case for several months, and we see no grounds for changing it now. To be sure, we've pointed to the possibility that inflation comes back much more aggressively than is now being anticipated as a, if not the, main downside risk to our baseline 2018 outlook. If that does indeed prove to be the case, the FOMC would almost surely move at a faster pace than we, and many market participants, now anticipate. It is, however, simply too soon to adopt that as our new baseline outlook.

ECONOMIC OUTLOOK



February 2018

Q3 '17 (a)	Q4 '17 (p)	Q1 '18 (f)	Q2 '18 (f)	Q3 '18 (f)	Q4 '18 (f)	Q1 '19 (f)	Q2 '19 (f)		2016 (a)	2017 (p)	2018 (f)	2019 (f)
3.2	2.6	2.8	2.8	2.7	2.3	2.1	2.1	Real GDP ¹	1.5	2.3	2.8	2.2
2.2	3.8	2.0	2.3	2.3	2.0	2.0	1.9	Real Personal Consumption ¹	2.7	2.7	2.5	2.0
								Business Fixed Investment:				
8.5	8.6	7.0	6.2	4.9	3.6	4.0	4.0	Equipment, Software, & IP ¹	0.3	4.5	6.8	4.0
-7.0	1.4	3.5	4.5	4.2	3.7	3.5	2.3	Structures ¹	-4.1	5.3	2.2	3.2
-4.7	11.6	7.1	6.0	5.4	6.8	7.4	7.0	Residential Fixed Investment ¹	5.5	1.7	5.0	6.6
0.7	3.0	0.0	0.5	0.6	0.9	0.5	0.7	Government Expenditures ¹	0.8	0.1	0.9	0.7
-597.5	-652.6	-651.3	-650.5	-649.4	-648.4	-654.2	-660.1	Net Exports ²	-586.3	-621.5	-649.9	-664.9
1.172	1.251	1.270	1.284	1.313	1.349	1.381	1.411	Housing Starts, millions of units ³	1.177	1.207	1.304	1.419
17.1	17.7	17.1	16.9	16.8	16.6	16.5	16.4	Vehicle Sales, millions of units ³	17.5	17.2	16.8	16.4
4.3	4.1	4.1	4.0	3.9	3.9	3.8	3.8	Unemployment Rate, % ⁴	4.9	4.4	4.0	3.7
1.5	1.5	1.5	1.4	1.4	1.3	1.2	1.1	Non-Farm Employment ⁵	1.8	1.6	1.4	1.1
1.8	1.9	1.8	2.0	2.0	1.9	2.0	2.1	GDP Price Index ⁵	1.3	1.8	1.9	2.1
1.5	1.7	1.8	2.3	2.4	2.2	2.0	2.0	PCE Deflator ⁵	1.2	1.7	2.2	2.0
2.0	2.1	2.2	2.9	3.0	2.6	2.3	2.2	Consumer Price Index ⁵	1.3	2.1	2.7	2.1
1.4	1.5	1.5	1.8	2.0	2.1	2.1	2.1	Core PCE Deflator ⁵	1.8	1.5	1.9	2.1
1.7	1.7	1.8	2.3	2.5	2.5	2.4	2.4	Core Consumer Price Index ⁵	2.2	1.8	2.2	2.3
1.13	1.18	1.42	1.67	1.90	2.13	2.17	2.38	Fed Funds Target Rate, % ⁴	0.39	0.97	1.78	2.40
2.24	2.37	2.73	2.87	2.95	3.00	3.05	3.10	10-Year Treasury Note Yield, % ⁴	1.84	2.33	2.89	3.12
3.89	3.92	4.17	4.34	4.44	4.51	4.57	4.64	30-Year Fixed Mortgage, % ⁴	3.65	3.99	4.36	4.68
-2.1	-2.3	-2.4	-2.5	-2.6	-2.8	-2.7	-2.8	Current Account, % of GDP	-2.4	-2.3	-2.6	-2.8

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