CONOMIC OUTLOOK A REGIONS



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The Other Side Of Low Inflation

We devoted last month's Outlook ("The Curious Case of the Missing Inflation") to a discussion of the outlook for inflation. Sure, you can perhaps think of any number of topics that might make for a more interesting four pages (and perhaps last month you did just that), but in terms of significance, we thought it a worthy topic. The primary reason is that the outlook for inflation is a key factor in the FOMC's deliberations over the course of monetary policy. Over recent months, that outlook has become progressively less clear. In February, when headline PCE inflation came at 2.1 percent and core PCE inflation at 1.8 percent, it seemed that inflation was on the verge of settling in at the FOMC's 2.0 percent target rate, but subsequent months have seen inflation beat a hasty retreat and the June data will show a fourth consecutive month of decelerating inflation.

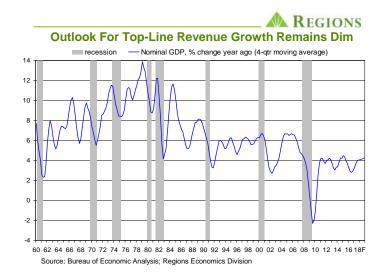
Many FOMC members have dismissed this deceleration as reflecting a host of transitory factors, which implies it should have little or no bearing on their assessment of the proper course of monetary policy. As we discussed last month, we take issue with this view, and, at least judging by the minutes to the June FOMC meeting, there is at least some doubt within the Committee over whether the recent deceleration in inflation reflects transitory or structural factors. And, while we are by no means experts, we're guessing there is a limit as to how long something can persist and still be considered transitory.

Rest assured we're not going to use this space to simply rehash the arguments we laid out in last month's Outlook, but we do think it worth looking at this question from another angle. After all, low and/or falling goods prices may be a boon to consumers, but for those who produce and sell those goods, not so much. By now you've heard, probably many times, that the present expansion is the third longest on record while at the same time the slowest on record. What you may not have heard as much discussion around, however, is what some of the implications of this are - well, the slowest part, not the third oldest part.

Typically, the discussion around the relative lack of vigor of the current expansion is couched in terms of real (i.e., inflation adjusted) GDP growth, which has averaged just 2.1 percent over the course of the current expansion which began in Q3 2009. To better frame this discussion, we'll instead focus on nominal (or, not adjusted for price changes) GDP growth. Not in the hopes that this will improve the relative standing of the current expansion, because it won't. Instead, our focus here is on nominal GDP because this is a good proxy for top-line corporate revenue, which is how we tie it in with the recent deceleration in inflation.

As can be seen in the following chart, the current expansion has seen the slowest sustained nominal GDP growth on record (our chart starts in 1960 but the data go back to the 1940s). For a host

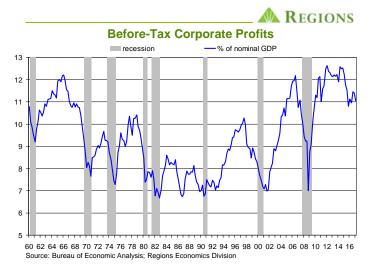
of reasons, firms have been operating for a prolonged period in an environment in which they possess little pricing power. Lurking beneath the anemic growth in total corporate revenue lies a stark dichotomy between producers of goods and providers of services, with the former having virtually no pricing power while the latter have at least been able to wield modest pricing power.



We've incorporated our current baseline U.S. economic forecast into the chart, and this shows we don't expect much in the way of improvement in top-line revenue growth. We will also note that our baseline outlook does anticipate inflation settling in close to the FOMC's 2.0 percent target rate, but if the weakness in inflation seen over the past few months persists, then revenue growth will come in weaker than we now anticipate. Either way, however, revenue growth doesn't figure to get much better over the next several quarters.

One of the (many) guirks of the current expansion is that the anemic growth in top-line revenue that has prevailed over the life of this expansion has been accompanied by some of the fattest profit margins on record. Indeed, while the all-time high for any single quarter on record came in Q4 1950, at just over 13 percent, the current expansion has seen the longest sustained period of elevated profit margins in the life of the GDP data. In this sense, one may not be inclined to feel much sympathy for corporations having had so little pricing power over this same time.

If the combination of anemic revenue growth and a prolonged period of elevated profit margins seems hard to reconcile, we've got two words for you: cost containment. In other words, firms have been extraordinarily focused on controlling costs over the past several years, which is how profit growth has been sustained in the face of persistently weak growth in top-line revenue. One significant advantage firms have had is that they were able to access an abundant supply of relatively low cost labor and, as such, freely substituted labor for capital to meet growth in demand. That advantage, however, while not having totally evaporated, has clearly faded and will continue to do so.



As seen in the above chart, while still high on a historical basis, corporate profit margins are well below their cyclical peak. With the labor market continuing to tighten and the degree of labor market slack being steadily pared down, labor costs are rising at a faster rate and this acceleration figures to continue over coming quarters. It is on this basis, i.e., rising labor costs, that many, including some FOMC members, expect inflation pressures in the broader economy to become more intense over coming quarters. This premise helps explain why there is so much focus on the question of whether the economy is at, or closing in on, full employment – once we are at that point, at least according to this view, wage inflation will intensify at a faster rate which, in turn, will lead to mounting inflation pressures in the broader economy.

We have on many occasions voiced our disagreement with this view, in no small part because it is at odds with how the global economy has evolved over recent decades. In other words, if you go back to the 1960s or the 1970s when the U.S. economy was fairly closed to global trade (not totally, but far more so than is the case now) and manufacturing accounted for between one-quarter and one-third of all nonfarm employment, firms had much more latitude to simply pass along higher labor costs in the form of higher output prices. That kind of pricing power is clearly a thing of the past and has been so for quite some time.

Moreover, simply assuming higher wages mean higher output prices ignores the role of productivity growth as a buffer between the two – we're often surprised, not to mention more than a little annoyed, at how common an omission this is. Sure, with the current run rate of productivity growth below 1.0 percent, it's easy to overlook productivity growth. But, as we have argued before, as the labor market tightens further and labor costs rise at a faster rate, firms have significantly greater incentive to invest in capital to drive faster productivity growth. Our premise all along has been that underinvestment on the part of firms over the course of the current expansion is the main culprit behind tepid productivity growth, and this simply reflects firms responding to the incentive offered by an abundant supply of relatively cheap and available

labor. As this pool of labor becomes more shallow, firms' incentives change, which will result in higher levels of capital investment and, in turn, faster productivity growth.

Faster productivity growth enables firms to pay higher wages without having to raise output prices, hence weakening if not completely breaking any link between wage growth and inflation in the broader economy. But, even if one ignores this fundamental relationship the question comes down to not how much pricing power do firms have, but how much pricing power do firms believe they have. A growing body of anecdotal and empirical evidence suggests the answer to that question is "not a lot."

Anyone who has listened in on corporate earnings calls over the past few quarters will have heard executives from a range of industry groups bemoan a lack of pricing power and stress continued emphasis on cost control. And, sorting through the monthly inflation data, whether it's the CPI or the PCE deflator, shows that prices for core goods (i.e., consumer goods excluding food and energy) have been declining for over four years now. Retailers have seen their margins come under intensive pressure, and that will only continue as Amazon extends its reach through the retail landscape. And, while some argue that firmer global economic growth will quickly lead to renewed pricing power on a global basis, we beg to differ, as would anyone taking into account the high degree of slack in global labor markets and the high degree of idle industrial capacity around the globe.

So, to the extent they believe their pricing power to be limited, if not nonexistent, one option for firms is to willingly accept slimmer profit margins. We don't necessarily rule this out, given what has been a prolonged period of atypically high margins. That said, there is a limit to how much of an erosion firms, or more specifically their shareholders, will be willing to accept. That leaves firms with an even greater incentive to invest in ways to either make their workers more productive or to automate tasks now performed by workers. Either way, though, this simply reinforces our argument that accelerating growth in labor costs does not necessarily imply accelerating inflation in the broader economy.

Even if one buys the argument that the recent deceleration in inflation seen over the past few months is transitory, there is little to suggest inflation will stray too far from the FOMC's 2.0 percent target rate – on the upside – any time soon. Persistently weak energy prices, at least for as long as the global supply glut of oil persists, and increasingly less pricing power in the grocery industry figure to keep a lid on headline inflation. The outlook for core inflation is more mixed. While deflationary pressures on core goods prices figure to abate, decelerating rent growth will provide an offset. To a large degree, then, the path of core inflation will be more and more dependent on the path of health care costs, but anyone who thinks there's any clarity there simply hasn't been paying attention.

But, to the extent the FOMC believes there is a firm link between growth in labor costs and broader inflation pressures, that will shape their views of the appropriate course of monetary policy. In other words, narrowly focusing on whether or not the economy is at full employment will yield a different path for the Fed funds rate than stopping to consider the factors that drive pricing decisions in the corporate sector and also considering the strong likelihood that we are seeing structural changes in the U.S., if not the global,

economy that will result in inflation remaining below the FOMC's 2.0 percent target rate.

A read through the minutes of the June FOMC meeting suggests there are at least some FOMC members gravitating towards this latter view. Minneapolis Fed President Kashkari has cast dissenting votes against the last two Fed funds rate hikes based on his view that low inflation is more structural than transitory, and St. Louis Fed President Bullard, though not presently a voting member of the FOMC, has expressed similar views. So, there is a lot riding on the FOMC getting it right on inflation, as their collective view will dictate the extent to which they continue to increase the Fed funds rate. For the corporate sector of the U.S. economy, their ability and/or willingness to pass along higher labor costs in the form of higher output prices will dictate the path of profit margins. Clearly, this is more than an academic question, which is why we and so many other analysts devote so much attention to this topic.

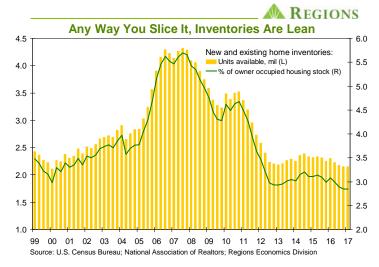
Rising Prices Not That Hard To Find... In the Housing Market

Well, this is awkward . . . after concluding a discussion of inflation being low and likely to stay that way, we then turn to a discussion of one segment of the economy in which rapidly rising prices are not at all hard to find. We are of course referring to the housing market, which has seen sales prices rising at a notably rapid rate for some time now. In our May 2017 *Outlook* ("It's A Seller's Market – Has Anyone Told The Sellers?") we discussed what have been notably lean inventories of new and existing homes for sale, the factors that have contributed to this state, and how that has fueled faster growth in house prices.

As with our above discussion of inflation, we don't intend to simply rehash our discussion of inventories. But, one thing we've not only thought about on our own but have also fielded questions on from our readers is a way to better put into context what we and other analysts mean when we talk about "lean inventories" of homes for sale. The typical manner is to talk about the "months supply" metric which is reported each month in the data on new and existing home sales. Simply stated, months supply tells us how many months of inventory are on the market for sale at the current month's sales rate. It is generally accepted that six months of inventory represents a balanced market, and we can use the six months figure as a benchmark against which to assess current market conditions. For instance, in May (the latest data point as of this writing) the months supply metric for the existing home market stood at 4.2 months after having been below 4.0 months from December 2016 through March 2017.

Still, we've never been fully satisfied with the months supply metric, mainly because it can shift, sometimes sharply, in any given month for reasons that have nothing to do underlying market conditions. For instance, home sales, particularly new home sales, can be very volatile from one month to the next, but as inventories tend to be more stable from month to month, the months supply metric is also prone to sharp swings. Such swings, however, tell us very little about underlying market conditions, and for those who follow the data in a more casual manner than we and other analyst tend to do, these swings can be confusing.

Having given this some thought, one alternative that occurred to us is to scale the supply of homes, new and existing, for sale to the size of the owner occupied housing stock. In one sense, this gives us a measure of the potential turnover of the owner occupied segment of the housing market, assuming everything listed for sale actually sold. More generally, we think this approach is one that can help people put the concept of "lean inventories" into a more meaningful perspective. Have a look at the following chart and see if it works for you.



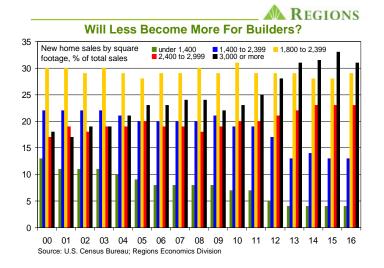
A few points of clarification before we proceed – the above chart shows inventories of new and existing homes for sale (the latter includes single family homes and condos) as a percentage of the owner occupied housing stock. We show the data quarterly as that is the frequency on which we have data on the occupied housing stock. Finally, while we always prefer to show more, rather than less, data, the data on existing home inventories only begin in 1999 so our chart can't go any further back in time.

That constraint notwithstanding, the ratio of current listings to the owner occupied housing stock hit an all-time low in Q4 2016 before rising trivially in Q1 2017. As represented by the yellow bars in the above chart, Q1 2000 is the only quarter in which the actual number of homes for sale was lower than was the case in Q1 2017. The difference, however, is the owner occupied housing stock was 6.9 percent larger in Q1 2017 than it was in Q1 2000, hence the strikingly low ratio shown in the above chart.

Those who regularly read our monthly analysis of the home sales data are familiar with our view that, while the demand side of the housing market is quite healthy, the supply side is where the issues are. Hopefully the above chart helps illustrate our point. As noted earlier, limited inventories have fueled faster growth in house prices, and house price appreciation has far outpaced income growth over the past few years. In other words, housing has become increasingly less affordable for a growing number of prospective buyers. One concern we've had this year has been that rising mortgage rates would only exacerbate this situation. After all, low mortgage rates have acted as a buffer between rising house prices and affordability, but as mortgage rates rise that buffer will become thinner and thinner. Thus far, mortgage rates have not risen to the extent we had anticipated, but that of course can change quickly, as we've seen over the past two weeks.

Even with low mortgage rates, prospective buyers had been increasingly priced out of the new home market for quite some time. One trend we've been tracking in our monthly analysis of new home sales is the elevated share of sales accounted for by homes priced at or above \$300,000. This share was below 30 percent in early 2012, but from that point began to rise steadily, hovering at or above 50 percent since late-2014 and hitting 62.1 percent in May 2017.

As we've noted, thanks to an array of factors including shortages of buildable lots, labor, and materials and what in many markets have become more costly and cumbersome entitlement processes, builders are simply building far fewer homes than would be the case in a more normal cycle. But, given the higher sales prices, which include builders passing on entitlement costs to buyers in many markets, builders are making up for in margin what they've been missing out on in volume. One way to see how the new homes market has shifted is to look at homes sold by size, as seen in the following chart.



The data illustrated in the above chart come from an annual Census Bureau report (the 2016 report was just released) on characteristics of new residential construction. As seen in the chart, homes of 3,000 or more square feet have accounted for an increasing share of total new home sales over the past several years, though that share did fall slightly in 2016. While we and many analysts, and for that matter many builders, believe there is considerable potential in targeting first-time buyers, the realities of lot availability and development costs in many markets mean the math simply does not work, which is another reason we have argued that there will be little relief on the supply side of the forsale segment of the housing market any time soon.

Obviously, at some point something has to give, as was learned the hard way a decade ago. Rapidly rising sales prices, particularly if coupled with materially higher mortgage interest rates, would choke off a considerable portion of demand for home purchases, and prices would very likely begin to fall. That said, it would be wrong to attempt to draw too many parallels between present market conditions and those that prevailed in the pre-recession years. Back then, rapid house price appreciation was fueled by an abundance of cheap and readily available credit, and the frenzied

pace of price appreciation drew an excess of supply on to the market. As we all know, the correction to that set of market conditions was deep and painful, and in some markets has yet to fully run its course. The issue now, however, is that prices are being driven higher by too little supply. Which is not to say there can't, or won't, be a correction, but simply that any such correction will be less severe than was the case in the last cycle. In any event, the problem of there being too little inventory is unlikely to abate to any meaningful degree any time soon.

So, Rapidly Rising House Prices Don't Cause Inflation?

Finally, we have been asked, more than once, how to reconcile what has been increasingly rapid house price appreciation with relatively tame inflation. The basic gist of these questions is as follows: why doesn't this faster rate of house price appreciation make more of an impact in measured inflation given how large a share housing costs are in a typical family's budget. The answer is that house prices do not directly enter into inflation as measured by the CPI or the PCE deflator.

Measures of consumer inflation are designed to compare the cost of consuming a given bundle of goods and services at different points in time, i.e., from one month to the next, or from one year to the next. In measures of consumer level inflation, housing units are seen as capital (or, investment) goods as opposed to consumption goods. As such, house prices incorporate not only the value of current housing consumption but also the capitalized value of future housing consumption. As a result, including house prices directly in the CPI or the PCE deflator would violate the basic premise behind what these indexes are designed to measure.

That does not mean housing costs are not accounted for in the various measures of inflation. They are, but what is being measured is the cost of shelter, i.e., the service provided by a housing unit, be it a rental unit or an owner occupied unit. In the case of rental units, it is fairly straightforward – the cost of the shelter is the rent being paid by the occupant, hence market rents are directly included in measures of inflation. For owner occupied units, it is much less straightforward. The *Consumer Expenditure Survey*, which is the basis for the CPI, asks consumers who own their primary residence what they think their home, unfurnished and without utilities, would rent for at the time the survey is administered. This is the "owners' equivalent rent" component of the CPI (the PCE deflator incorporates a measure of the imputed rental value of owner occupied housing).

What is interesting and a bit puzzling is that over time growth in the market rents component of the CPI has easily outpaced growth in the owners' equivalent rent component, and this remains the case despite the faster pace of house price appreciation over recent quarters. In any event, regardless of whether or not one agrees with how housing costs are accounted for in measures of consumer level inflation, the manner in which they are accounted for is in keeping with the basic premise of a price index. Whether you agree or disagree with that methodology, this hopefully helps you understand why there is not a more powerful link between house price appreciation and measured inflation.

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Q1 '17 (a)	Q2 '17 (p)	Q3 '17 (f)	Q4 '17 (f)	Q1 '18 (f)	Q2 '18 (f)	Q3 '18 (f)	Q4 '18 (f)		2016 (a)	2017 (f)	2018 (f)	2019 (f)
1.4	3.1	2.5	2.2	2.5	2.4	2.2	2.1	Real GDP ¹	1.6	2.3	2.4	2.0
1.1	3.0	2.7	2.6	2.8	2.5	2.4	2.2	Real Personal Consumption ¹	2.7	2.6	2.6	2.1
								Business Fixed Investment:				
7.2	3.3	2.4	2.3	2.6	3.1	2.7	2.4	Equipment, Software, & IP ¹	0.0	3.1	2.7	2.3
22.5	4.1	2.1	3.0	2.2	1.3	1.4	2.0	Structures ¹	-2.9	7.5	2.2	1.8
12.9	0.0	1.1	2.9	6.8	7.3	6.6	6.2	Residential Fixed Investment ¹	4.9	4.1	4.9	6.6
-0.9	1.1	1.1	0.7	0.8	1.0	1.0	0.9	Government Expenditures ¹	0.8	0.2	0.9	0.8
-595.6	-610.5	-612.6	-615.9	-620.9	-627.3	-634.4	-640.1	Net Exports ²	-563.0	-608.7	-630.7	-656.9
1.238	1.128	1.181	1.209	1.241	1.270	1.299	1.322	Housing Starts, millions of units ³	1.177	1.189	1.283	1.403
17.2	16.6	16.5	16.5	16.4	16.3	16.2	16.2	Vehicle Sales, millions of units ³	17.5	16.7	16.3	16.1
4.7	4.4	4.3	4.3	4.3	4.3	4.2	4.2	Unemployment Rate, %4	4.9	4.4	4.3	4.2
1.6	1.6	1.4	1.3	1.3	1.2	1.1	1.1	Non-Farm Employment⁵	1.8	1.5	1.1	1.0
4.0	4.5	4.7	4.7	4.5	4.0	4.0	4.0	CDD D : 1 5	4.0	4.7	4.0	2.4
1.9	1.6	1.7	1.7	1.6	1.9	1.9	1.9	GDP Price Index ⁵	1.3	1.7	1.8	2.1
2.0	1.5	1.6	1.5	1.4	1.8	2.0	2.1	PCE Deflator⁵	1.1	1.6	1.8	2.2
2.6	1.9	1.8	1.5	1.2	1.8	2.0	2.2	Consumer Price Index ⁵	1.3	1.9	1.8	2.2
1.7	1.4	1.4	1.6	1.5	1.9	1.9	2.0	Core PCE Deflator⁵	1.7	1.5	1.8	2.1
2.2	1.8	1.7	1.7	1.6	2.0	2.2	2.3	Core Consumer Price Index ⁵	2.2	1.9	2.0	2.3
0.67	0.92	1.13	1.18	1.41	1.67	1.89	2.13	Fed Funds Target Rate, %4	0.39	0.97	1.77	2.27
2.44	2.26	2.45	2.50	2.60	2.70	2.80	2.85	10-Year Treasury Note Yield, %4	1.84	2.41	2.74	2.98
4.17	3.98	4.05	4.10	4.26	4.40	4.56	4.69	30-Year Fixed Mortgage, % ⁴	3.65	4.08	4.48	4.83
-2.5	-2.5	-2.6	-2.7	-2.6	-2.7	-2.8	-2.8	Current Account, % of GDP	-2.4	-2.6	-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