ECONOMIC OUTLOOK

REGIONS

September 2017

Wage Growth: Are There Yet?

One of the more notable elements of the current economic expansion, now in its ninth year, has been stubbornly slow wage growth. Despite what is now the longest string of consecutive monthly increases in nonfarm employment on record, now at 83 months and counting, and a headline unemployment rate of 4.4 percent, year-on-year growth in average hourly earnings remains stuck in a fairly narrow range more recently centered around 2.5 percent. This is, most analysts would agree, shy of the rate of growth that would be expected at full employment, and the lack of a meaningful and sustained acceleration in wage growth at this point of the expansion is somewhat puzzling.

The list of possible explanations for the behavior of wage growth is a long one. Some of them, such as those based on the notion that the economy is only adding low-skill, low-wage jobs, or that the economy is only adding part-time jobs, can be dismissed out of hand, as there is simply nothing in the data to support such contentions. Other possibilities are that there is considerably more slack in the labor market than is implied by a 4.4 percent headline unemployment rate, that the unemployment rate associated with full employment is lower now than has been the case in the past, and that an anemic trend rate of labor productivity growth is acting as a drag on wage growth.

While we don't see any single one of these last few as "the" explanation for persistently sluggish wage growth, we think all are partly in play, as we have often noted. We also think the shifting generational mix of employment is playing a role in sluggish wage growth as measured in the aggregated data. In other words, as members of the Baby Boomer leave the labor force in larger numbers and are replaced by younger (i.e., less expensive) workers, reported wage growth is suppressed. To the extent this is the case, it will be a lasting drag on measured wage growth as we are still in the early phases of this generational shift. It can also be plausibly argued that the increased use of automation is weighing on measured wage growth, though any such effect is difficult to quantify with any degree of precision.

Despite what has thus far been failure to launch, many analysts argue that faster wage growth is a matter of when, not if. In other words, as the labor market continues to tighten, it is reasonable to expect the pace of wage growth to pick up. Among those waiting for such acceleration in wage growth are many members of the FOMC, who see faster wage growth as a precursor of faster inflation in the broader economy. The argument goes that as firms are forced to pay higher wages to attract/retain workers, they will simply pass along these higher labor costs in the form of higher output prices.

We have, on many occasions, noted that we are skeptical of this argument. As a general rule, faster wage growth is not in and of itself the source of faster inflation in the broader economy, as productivity growth acts as a buffer between the two. Given the anemic trend rate of productivity growth that has prevailed over the past several quarters, one could argue there is at present a more direct link between wage growth and inflation. But, as we discussed in detail in the July 2017 edition of our *Monthly Economic Outlook*, even allowing for anemic productivity growth, there are many reasons why we would not expect faster wage growth to spark faster inflation in the broader economy, even though many analysts, and more than a few policy makers, remain anchored to this premise.

One thing that occurs to us in thinking about this topic is that while we know what wage growth is, at least as measured in the monthly employment reports, it is far less clear what wage growth should be. Sure, there is general agreement that were we operating at full employment, growth in average hourly earnings would be around 3.5 percent. One way to arrive at this figure is to assume "normal" productivity growth of around 1.5 percent and allow for inflation of about 2.0 percent, yielding growth in hourly earnings of around 3.5 percent.

The problem, however, is that there is far less agreement as to what actually constitutes full employment, at least in terms of picking "the" unemployment rate consistent with being at full employment. That unemployment rate is not set in stone; in theory it can, and in practice it does, vary over time based on underlying structural factors. Moreover, in a dynamic economy, even if we were operating at the unemployment rate consistent with full employment, by time any of us figured that out, the unemployment rate would have changed. This in turn makes it difficult to put wage growth in its proper context.

Another issue in assessing whether wage growth is too fast, too slow, or just right is that it is difficult to empirically establish which way the causality runs between inflation and wage growth. As noted above, many still cling to the notion of what can generally be characterized as "cost-push" inflation, i.e., as input costs – in this case labor – rise, firms simply pass along the higher input costs in the form of higher output prices. As we discussed in our July *Outlook* however, while this may have been a perfectly reasonable premise a few decades ago when the U.S. economy was relatively closed (to global trade), manufacturing accounted for a much larger share of total employment, and labor unions were much more prominent, we don't think this notion of unfettered pricing power is all that relevant in today's economy.

This of course matters when the past is the framework through which you view the present. In other words, one of the difficulties in looking at today's wage growth relative to yesterday's wage growth is that the underlying structure of the economy has shifted, dramatically so in the comparison between yesterday's relatively closed economy and today's highly globalized economy. Indeed, it

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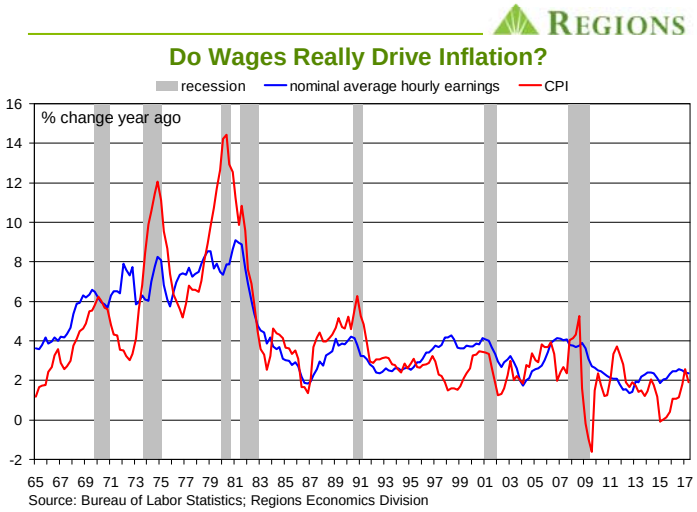
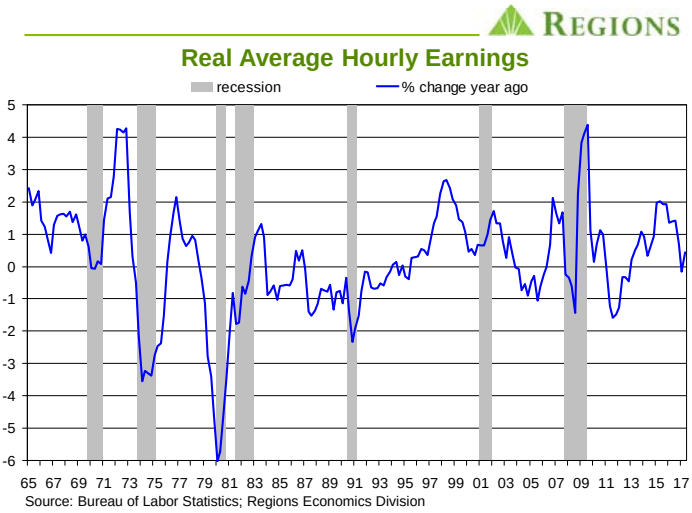
is worth noting that not only is the trend rate of wage growth slower now than has historically been the case, but so too is the trend rate of inflation, as can be seen in the following chart.



The chart shows year-on-year growth in average hourly earnings and the Consumer Price Index (CPI). This raises the question of whether inflation is lower because wage growth has been slower, or is wage growth slower because inflation has been lower, a question for which there is not a definitive empirical answer. The broader point here, however, is that any assessment of whether wage growth is at present too slow, too fast, or just right has to be made in the context of persistently slow inflation.



The above chart shows a different way to frame the discussion, as it shows year-on-year growth of real, i.e., inflation adjusted, average hourly earnings. In terms of the first chart above, growth in real average hourly earnings is roughly the difference between growth in nominal average hourly earnings and the rate of inflation. What is often surprising to people is that there have been long stretches in which inflation adjusted average hourly earnings have actually declined on a year-on-year basis. For instance, real average hourly earnings fell year-on-year in 28 consecutive quarters starting with Q1 1987 and ending with Q4 1993. To be sure, more often than not swings in growth of real average hourly earnings reflect swings in the rate of inflation as opposed to marked changes in labor market conditions.

In the current cycle, this is apparent in what has been fairly stable growth in nominal average hourly earnings, which since Q1 2015 has hovered in a fairly narrow range with an average of 2.48 percent, while the rate of inflation has fluctuated more widely. For the sake of comparison, over the Q1 1987 through Q4 2007 period, average year-on-year growth in real average hourly earnings was 0.16 percent per quarter, while over the Q1 2012 through Q2 2017 period average growth has been 0.72 percent. No one will argue that this is spectacular growth, but our point is that in the context of the historical data real wage growth during the current expansion has at the very least held its own.

Which of course is not to say real wage growth can't be faster. A best case scenario would be something along the lines of the broad based expansion of the 1990s, in which tighter labor market conditions coupled with a sustained period of rapid productivity growth fostered a prolonged period of steady growth in wages along with muted inflation, meaning both nominal and real wage growth accelerated. One point often missed is that the 1990s expansion generated improved growth in real wages across all major industry groups so that workers across skill levels saw rising real wages.

At least at present, the prospect of a year, let alone a decade, of 3.0 percent productivity growth seems beyond the imagination. That does not, however, mean we should rule out a sustained increase in productivity growth that could in turn lead to faster wage growth. Indeed, the recent run of growth in business spending on intellectual property products and on equipment and machinery, does offer hope for better productivity growth, but that will take time to materialize, assuming of course the upturn in business investment spending is sustained, as we expect it will be.

A more immediate source of faster wage growth could be further tightening in labor market conditions. To the extent tighter labor market conditions prompt faster nominal wage growth without in turn sparking faster inflation, real wage growth would improve. The drawback here is that there is still enough slack in the labor market to act as a meaningful drag on nominal wage growth, thus pushing any sustained acceleration further out into the future. Assuming we do get to that point, however, the danger is that monetary policy makers respond to faster nominal wage growth by tightening policy on the premise that faster wage growth will lead to faster overall inflation. Any such pre-emptive tightening in monetary policy would pose a risk to the expansion.

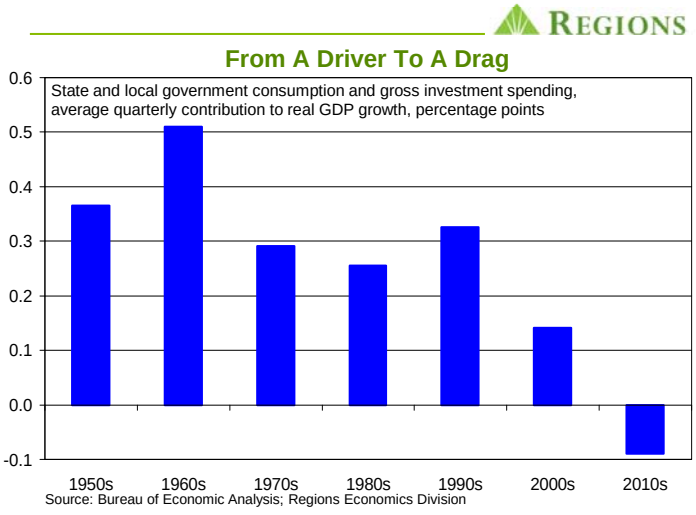
Our point here is simply that the problem with the labor market at present may not be wage growth but instead expectations of wage growth, i.e., they're too high. Simply looking at the historical data and pegging a rate of wage growth that in the past would be commensurate with today's low unemployment rate ignores structural changes in the economy over time. While the most obvious of these differences include the degree of openness of the economy, trends in labor productivity growth, and the increased role on automation, the one difference that doesn't get nearly as much attention as is should is the steady deceleration in inflation over the past few decades. Our view is that the relationship between wage growth and inflation has shifted over time, and one

can make a plausible case that the latter leads the former rather than wage growth leading inflation as was the case in decades past. Assuming that the causality between wage growth and inflation has not changed despite dramatic changes in the underlying structure of the economy over the past few decades is a bad way to forecast both wage growth and inflation, and it's an even worse way to guide the course of monetary policy.

State Government Spending: From A Driver To A Drag

The BEA's second estimate puts real GDP growth at an annualized rate of 3.0 percent in Q2 2017. Growth would have been faster had it not been for a contraction in government spending, specifically, a sizeable contraction in spending on the combined state and local levels. Real state/local government consumption expenditures and gross investment contracted at an annualized rate of 1.7 percent in Q2, which shaved two-tenths of a percent off of top-line growth (in the GDP data revenue and spending on the state and local government levels are reported on a combined basis with no split between state and local governments).

In and of itself, a decline in spending in any given quarter would not be all that significant. What makes the decline in Q2 notable, however, is that it reflects the continuation of a trend that has been in place for some time now, and one that has gathered pace in the post-recession years. State and local government purchases of goods and services and investment expenditures on things like equipment and infrastructure have been growing at only a slow pace on a nominal basis and have actually declined on a real, i.e., inflation adjusted, basis in the post-recession years. As shown in the following chart, this contraction has been a persistent drag on top-line real GDP growth, after decades of state and local consumption and investment outlays adding to growth.



As of Q2 2017, the level of inflation adjusted consumption and gross investment outlays by state and local governments was 3.5 percent below the level in Q4 2007. This may seem somewhat surprising given the current expansion is now in its ninth year, even allowing for what has been a fairly slow trend rate of top-line growth over the life of this expansion. To some extent, the path of consumption/investment outlays reflects revenue constraints. As we discussed in our June 2017 update on state government finances, state governments have been plagued by persistently slow growth in tax revenues over the current expansion.

On the state government level, personal income taxes and sales taxes are major sources of total tax revenue and both, for reasons we laid out in our June piece, have badly underperformed expectations during this expansion. On the local government level, property taxes are far and away the largest single component of total tax revenue. In light of what has been rapid house price appreciation over the past several quarters it may seem that local governments should have no worries on the revenue side of the ledger, but this is not the case. Keep in mind that there is a significant lag, generally about two years, between changes in market values and changes in the assessed values on which property taxes are based, so local tax revenues will not yet fully reflect the faster rate of house price appreciation.

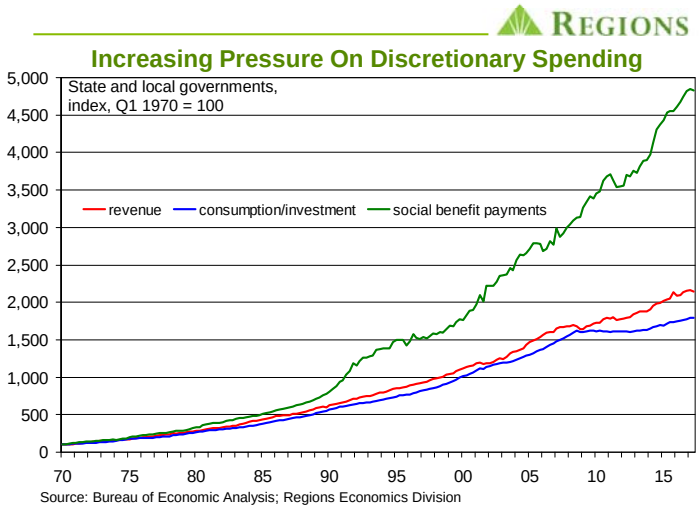
Additionally, while broader measures, such as the national average of any of the various repeat sales house price indexes, have shown price appreciation in the mid-single digits over the past several quarters, the reality is that rates of house price appreciation vary widely from one metro area to the next. The data on individual metro areas shows that while some, such as the larger Florida metro areas, are posting house price appreciation well in excess of the national average, many others continue to see house price appreciation well below the national average. The point here is that growth in local government tax revenue remains uneven across the U.S., and state tax revenue continues to grow at a fairly listless pace. As such, revenue constraints are in turn acting as a drag on growth in state and local government expenditures.

Still, persistently slow growth in state and local government tax revenue is only part of the explanation for the ongoing slump in state and local government consumption/investment spending. A more significant factor is the rapidly rising share of state and local government spending on mandatory programs, of which Medicaid spending represents the most significant share. In other words, rapidly increasing mandatory spending is increasingly displacing consumption/investment outlays, which can be thought of as discretionary spending.

Most of the burden of mandatory spending falls on state, not local, governments, though many local governments are facing potential burdens from pension obligations that could significantly impair their ability to engage in discretionary spending over the quarters and years ahead. And, as fiscal burdens tend to get passed down through the various levels of government, i.e., from federal to state to local, as state fiscal burdens become more pressing that figures to ultimately be felt on the local government level in the form of less financial aid from state governments.

With finances of many states already stretched by rapidly rising spending on mandatory programs, such as Medicaid, the trend in Washington DC seems to be in the direction of putting even larger burdens on the states to finance such programs. While this figures to come with the advantage of greater flexibility in administering programs in the individual states, it also comes with an increased burden to fund these programs. In an environment in which revenue growth has been persistently weak in many states, this

figures to put even more pressure on discretionary spending on the state government level.



The above chart shows the paths, for state and local governments combined, of nominal total tax revenue, consumption/investment spending, and spending on "social benefits" (of which Medicaid is the largest component) over the past several decades. As can be seen, the rate of growth of spending on social benefits began to accelerate sharply in the 1990s and has grown at an even faster pace in subsequent years. To be clear, the level of discretionary outlays is still larger than the level of spending on social benefit programs, but it is the ever widening gap in relative growth rates between the two that is striking. It is also striking how much more rapidly spending on social benefits is growing relative to total tax revenue, a gap that has widened in the post-recession years.

It should also be made clear that state and local government spending on social benefit programs does turn up in the GDP data. It enters the GDP data on both the income and spending sides of the ledger. For instance, government payments to cover health care costs of individuals are booked as transfer receipts by persons on the income side of the ledger, i.e., as a form of personal income. In order to account for the consumption of health care, however, all health care spending by or on behalf of individuals is booked as spending on services, part of personal consumption expenditures, regardless of who actually pays for the services – individuals, private insurance, or any level of government.

If you're confused by the prior paragraph, then, thank you, because that means you're still paying attention. We offered that brief primer on GDP accounting only to properly frame the discussion here. That such spending on the part of state and local governments turns up in the GDP data may lead one to conclude that the drag from less discretionary spending is simply offset by more mandatory spending, thus making it a wash for top-line GDP growth. We don't necessarily buy this argument, however, and instead argue that discretionary spending, whether on education, public safety, or infrastructure, has a larger and more immediate effect on employment and income and, in turn, GDP growth. To the extent we are correct on this point, that coming years figure to see even more discretionary spending displaced by mandatory spending suggests an increasing drag on top-line GDP growth.

It is worth noting that as of August 2017 the levels of both state government and local government employment remain below their December 2007 levels. To some extent this reflects the listless growth in tax revenue over this same period, but it also likely reflects the ongoing shift in the nature of spending on the state and local government levels. One can argue that health care providers will have hired more workers over the same period, but the relevant question is whether this hiring has been sufficient to fully offset the lower numbers of workers on state and local government payrolls. If we are correct that there is a bigger overall economic impact from discretionary spending, it would follow that overall employment levels are also lower as a result of the ongoing displacement of discretionary spending by mandatory spending.

Our point here isn't to argue whether this is good or bad, desirable or undesirable. After all, there is no shortage of those who see government spending as an undesirable displacement of private spending, nor is there a shortage of those who think government can spend our money for us more wisely than we can on our own. Those in either group are welcome to retreat to the nearest corner and scream at each other to their hearts' content. As for the rest of us, it is worth thinking about some of the implications of the shifting nature of federal, state, and local government spending.

Health care is not the only segment of the economy in which the amount of state-level spending, and the manner in which it is financed, can have potentially significant implications for the broader economy over coming years. For instance, the state of disrepair into which public infrastructure across wide swaths of the U.S. has fallen in recent years is a legitimate source of concern. Indeed, over the past several months there has been considerable discussion of significantly higher spending on infrastructure. The problem, however, is that while everyone seems to want more spending on infrastructure, no one seems to want to pay for it.

One proposal that seems to be gaining traction in Washington DC is that the federal government will provide supplemental funds for specific infrastructure projects for those states and municipalities that finance the bulk of the costs. In other words, the federal government won't simply be writing blank checks to fund higher state and local government spending on infrastructure but instead will be more of a supplemental financing arm. The point isn't whether or not we see this as a valid approach, but instead that it would mean an additional source of stress on what in many cases are already stressed state and local government finances. While, conceptually, dedicated user fees seem like the simplest and most direct solution, in reality this seldom works as planned and in many cases there are still funding gaps that need to be filled.

As the federal government deals with its own funding issues in the years ahead, mainly tied to entitlement programs, it follows that state and local governments will have to take on greater financial responsibility for various types of spending. What isn't as clear is the extent to which this is widely understood, and what is even less clear is what the solution will be. While we don't claim to have the answer to that last question, we do at least know it lies somewhere between "let the private sector do it all" and "let's raise taxes on rich people." Any viable solution will be neither quick nor painless but in a sharply divided political environment it's hard to be hopeful that a solution will be found before a multi-level government funding crisis is staring us in the face.

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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)
1.2	3.0	2.5	2.4	2.6	2.2	2.3	2.3	Real GDP[1]	1.5	2.2	2.4	1.9
1.9	3.3	2.1	2.8	2.7	2.1	2.2	2.1	Real Personal Consumption[1]	2.7	2.7	2.5	1.9
								Business Fixed Investment:				
5.0	7.2	3.8	3.7	3.6	2.9	3.4	2.8	Equipment, Software, & IP[1]	0.3	3.7	3.7	2.7
14.8	6.2	3.7	2.5	3.3	3.3	2.3	2.9	Structures[1]	-4.1	6.7	3.2	2.2
11.1	-6.5	2.4	1.0	5.2	9.1	11.8	10.8	Residential Fixed Investment[1]	5.5	2.1	5.2	8.7
-0.6	-0.3	-0.5	0.6	1.1	0.8	0.7	0.9	Government Expenditures[1]	0.8	-0.2	0.6	0.9
-622.2	-613.5	-616.6	-625.8	-633.6	-640.8	-649.5	-658.1	Net Exports[2]	-586.3	-619.5	-645.5	-683.8
1.238	1.165	1.161	1.171	1.218	1.264	1.316	1.351	Housing Starts, millions of units[3]	1.177	1.184	1.287	1.411
17.1	16.8	16.4	16.5	16.6	16.4	16.3	16.3	Vehicle Sales, millions of units[3]	17.5	16.7	16.4	16.2
4.7	4.4	4.4	4.3	4.2	4.2	4.2	4.1	Unemployment Rate, %[4]	4.9	4.5	4.2	4.1
1.6	1.6	1.4	1.4	1.4	1.3	1.3	1.3	Non-Farm Employment[5]	1.8	1.5	1.3	1.1
2.0	1.6	1.6	1.5	1.4	1.7	1.8	1.9	GDP Price Index[5]	1.3	1.7	1.7	2.0
2.0	1.6	1.4	1.4	1.3	1.7	1.9	2.0	PCE Deflator[5]	1.2	1.6	1.7	2.1
2.6	1.9	1.7	1.5	1.2	1.8	2.2	2.2	Consumer Price Index[5]	1.3	1.9	1.9	2.2
1.8	1.5	1.4	1.5	1.5	1.8	1.9	2.0	Core PCE Deflator[5]	1.8	1.5	1.8	2.1
2.2	1.8	1.6	1.6	1.5	1.9	2.2	2.3	Core Consumer Price Index[5]	2.2	1.8	2.0	2.3
0.80	1.05	1.25	1.30	1.54	1.75	1.78	2.00	Fed Funds Target Rate, %[4]	0.39	0.97	1.77	2.27
2.45	2.26	2.20	2.20	2.30	2.40	2.50	2.60	10-Year Treasury Note Yield, %[4]	1.84	2.31	2.70	3.10
4.18	3.99	3.87	3.94	4.05	4.17	4.27	4.39	30-Year Fixed Mortgage, %[4]	3.65	3.99	4.22	4.55
-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

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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