

## Q4 Productivity (Final)

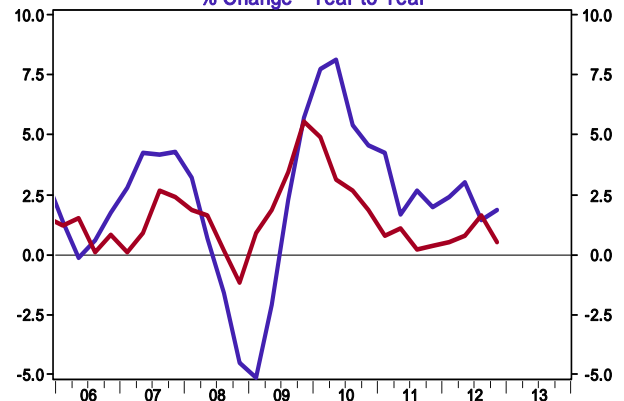
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- Nonfarm productivity (output per hour) declined at a 1.9% annual rate in the fourth quarter, revised up from last month's estimate of -2.0%. Nonfarm productivity is up 0.5% versus last year.
- Real (inflation-adjusted) compensation per hour in the nonfarm sector rose at a 0.4% annual rate in Q4 and is up 0.8% versus last year. Unit labor costs rose at a 4.6% rate in Q4 and are up 2.1% versus a year ago.
- In the manufacturing sector, the Q4 growth rate for productivity (2.1%) was substantially better than among nonfarm businesses as a whole. The faster pace in productivity growth was due to both faster growth in output and slower growth in hours than in the nonfarm sector as a whole. Real compensation per hour was down in the manufacturing sector (-2.0%), and due to the rise in output, unit labor costs fell at a 1.9% annual rate.

**Implications:** Productivity declined at a 1.9% annual rate in the fourth quarter, coming in only slightly better than the -2% estimate from last month. As expected, output was revised up from 0.1% to 0.5%. However, the number of hours worked was also revised upward, to a 2.5% annual rate from an original estimate of 2.2%. That's why the upward revision to productivity growth was so small: the extra production was mostly due to more hours being worked, not greater efficiencies. Despite the decline in productivity in Q4, it was still up 0.5% in 2012 after a 0.4% gain in 2011. These recent meager gains in productivity are noticeably smaller than the 2.3% annual average since 1996. However, we do not think the productivity revolution has come to an end. It is not unusual for productivity to surge at the very beginning of a recovery and then temporarily slow down as hours worked increase more rapidly. This is exactly what we have seen. Since the end of 2008, productivity is up at a 2.1% annual rate, not much different than the longer term trend. We would have to see productivity stagnate for at least another couple of years before being able to reach any conclusions about a structural downshift in its growth rate. For now, the long-term trend in productivity growth should remain strong, due to a technological revolution centered in computer and communications advances. Manufacturing productivity has been doing much better than nonfarm productivity and was revised substantially higher in Q4 as output came in much stronger than was originally thought and hours came in weaker. We expect further gains as manufacturing will continue to be a bright spot in the US economy for years to come.

**Nonfarm Business Sector: Real Output Per Hour of All Persons**  
 % Change - Year to Year

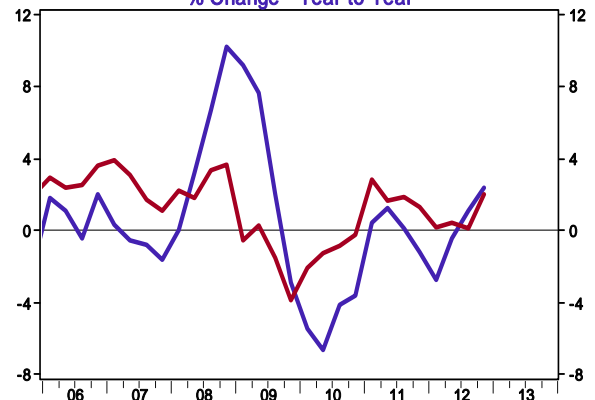
**Manufacturing Sector: Real Output Per Hour of All Persons**  
 % Change - Year to Year



Sources: Bureau of Labor Statistics /Haver Analytics

**Nonfarm Business Sector: Unit Labor Cost**  
 % Change - Year to Year

**Manufacturing Sector: Unit Labor Cost**  
 % Change - Year to Year



Sources: Bureau of Labor Statistics /Haver Analytics

<b>Productivity and Costs</b> (% Change, All Data Seasonally Adjusted)	Q4-12	Q3-12	Q2-12	Q1-12	Y to Y % Ch. (Q4-12/Q4-11)	Y to Y % Ch. (Q4-11/Q4-10)
<b>Nonfarm Productivity</b>	-1.9	3.1	1.7	-0.7	0.5	0.4
- Output	0.5	4.7	2.1	2.7	2.5	2.5
- Hours	2.5	1.6	0.4	3.4	1.9	2.1
- Compensation (Real)	0.4	-0.9	0.2	3.4	0.8	-1.6
- Unit Labor Costs	4.6	-1.9	-0.5	6.4	2.1	1.3
<b>Manufacturing Productivity</b>	2.1	-0.9	0.1	6.1	1.8	2.0
- Output	2.5	-0.5	1.3	10.2	3.3	4.5
- Hours	0.4	0.4	1.1	3.9	1.4	2.5
- Compensation (Real)	-2.0	-1.5	8.0	5.0	2.3	-2.5
- Unit Labor Costs	-1.9	1.4	9.0	1.1	2.3	-1.2

Source: US Department of Labor