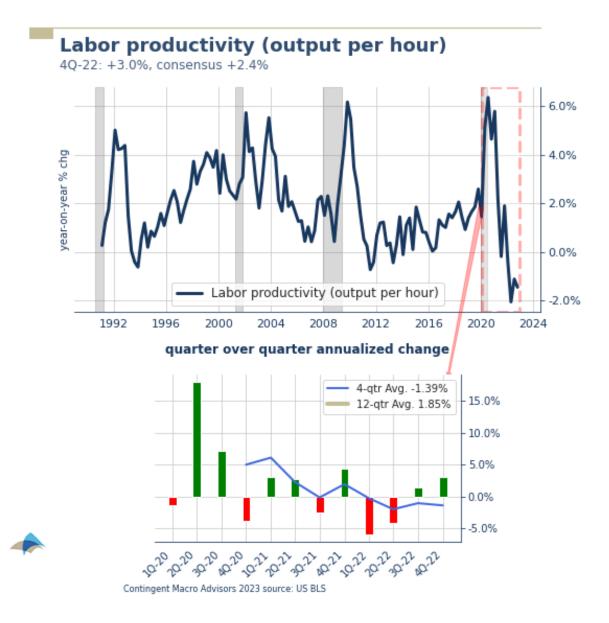
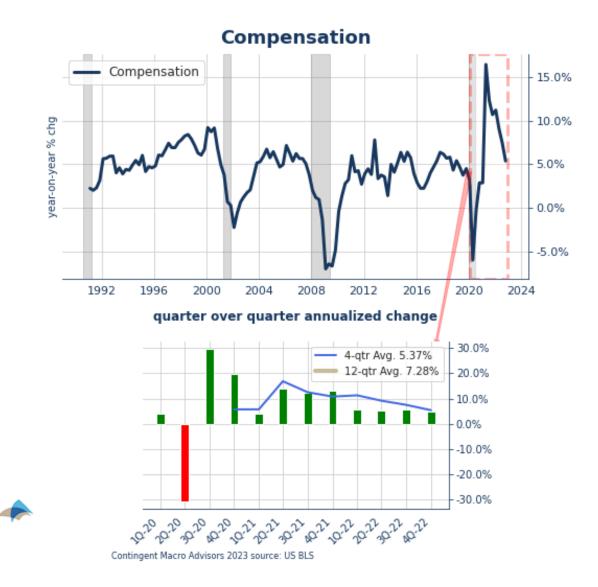


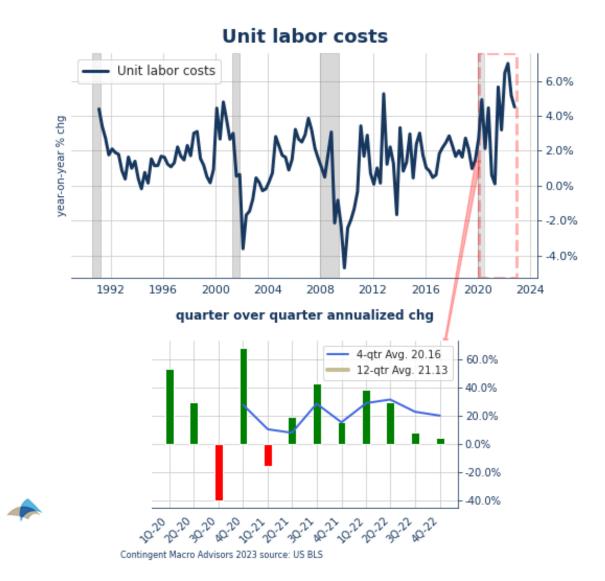
02.Feb.2023

Productivity: Another Rebound But Trends Still Concerning

Bottom Line: Productivity rose 3% annualized in the 4th Quarter, better than expected, as until output increased sharply more than hours worked. Unit labor costs rose 1.1%, reflecting a 4.1% increase in hourly compensation against the gain in productivity. With stronger growth in the 2nd half, the last two quarters saw both output and labor productivity increase after declines in output in the first half. That said, manufacturing sector productivity remains a concern, dropping by 1.5% in the 4th Quarter as output fell more than hours worked. Moreover, unit labor costs rose sharply as manufacturers held onto and even gave raises to employees, despite slower production. Overall, the rebound in productivity did little to change the slowing trend, and key sectors like manufacturing show even more concerning trends.







| Productivity = Output/Hrs. Worked | 4Q22qoq ann. | 3Q22 | 2Q22 | 1Q22 | 4Q22 yoy | 3Q22 yoy | 3y Avg. | 5y Avg. |
|---|-----------------|-------|--------|--------|----------|-------------|---------|---------|
| Labor productivity (output per hour) | 3.04% | 1.36% | -4.07% | -5.88% | -1.46% | 1.90% | 1.85% | 1.48% |
| Output | 3.51% | 3.64% | -1.24% | -2.47% | 0.82% | 7.26% | 3.62% | 2.32% |
| Hours worked | 0.46% | 2.25% | 2.94% | 3.63% | 2.31% | 5.26% | 2.23% | 0.94% |

Labor productivity, or output per hour, is calculated by dividing an index of real output by an index of hours worked by all persons, including employees, proprietors, and unpaid family workers.

| Unit Labor Costs = Comp/Output | 4Q22qoq ann. | 3Q22 | 2Q22 | 1Q22 | 4Q22 yoy | 3Q22 yoy | 3y Avg. | 5y Avg. |
|--------------------------------------|-----------------|-------|-------|-------|-------------|----------|---------|---------|
| Unit labor costs | 1.07% | 1.98% | 6.66% | 8.53% | 4.51% | 3.20% | 4.28% | 1.84% |
| Compensation | 4.62% | 5.69% | 5.33% | 5.85% | 5.37% | 10.69% | 7.28% | 4.01% |

| Output | 3 5 1 0/2 | 3 6/0/ | 1 2/10/2 | 2 170/ | 0 8 2 % | 7 26% | 3 6 2 % | 2 2 2 2 0/2 |
|--------|-----------|---------|----------|---------|---------|--------|---------|-------------|
| Output | 3.5170 | J.04 /0 | -1.24/0 | -2.41/0 | 0.0270 | 1.20/0 | J.02 /0 | Z.JZ /0 |
| - | | | | | | | | |

The BLS calculates unit labor costs as the ratio of hourly compensation to labor productivity. Increases in hourly compensation tend to increase unit labor costs and increases in productivity tend to reduce them. Real hourly compensation takes into account consumer prices.

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|----------------------------|-----------------|----------|--------|--------|-------------|----------|---------|---------|--|
| Output and Cost Details | 4Q22qoq ann. | 3Q22 | 2Q22 | 1Q22 | 4Q22 yoy | 3Q22 yoy | 3y Avg. | 5y Avg. | |
| Employment | 1.60% | 2.25% | 4.02% | 4.54% | 3.10% | 5.09% | 1.99% | 0.97% | |
| Avg weekly hours worked | -1.12% | -0.00% | -1.03% | -0.87% | -0.76% | 0.16% | -0.14% | -0.12% | |
| Hours worked | 0.46% | 2.25% | 2.94% | 3.63% | 2.31% | 5.26% | 2.23% | 0.94% | |
| Current dollar output | 6.62% | 7.56% | 8.34% | 4.95% | 6.86% | 14.29% | 8.47% | 4.44% | |
| Nonlabor payments | 9.28% | 10.07% | 12.48% | 3.74% | 8.84% | 19.48% | 11.42% | 5.62% | |
| Hourly compensation | 4.14% | 3.36% | 2.32% | 2.15% | 2.99% | 5.16% | 6.03% | 3.26% | |
| Unit nonlabor payments | 5.57% | 6.20% | 13.90% | 6.36% | 7.95% | 11.39% | 5.67% | 2.79% | |
| Implicit price deflator | 3.00% | 3.78% | 9.70% | 7.60% | 5.99% | 6.55% | 4.41% | 2.01% | |
| Real hourly compensation | 0.98% | -2.20% | -7.43% | -6.44% | -3.83% | -1.44% | 1.25% | 0.93% | |
| Output per job | 1.88% | 1.36% | -5.06% | -6.70% | -2.20% | 2.06% | 1.66% | 1.35% | |
| Labor share | -1.88% | -1.74% | -2.77% | 0.87% | -1.39% | -3.15% | 0.04% | -0.13% | |

source = Bureau of Labor Statistics