Office of the Comptroller of the Currency

ON POINT

ECONOMIC AND POLICY INSIGHT FROM THE OCC

Is a Wage-Price Spiral Emerging?

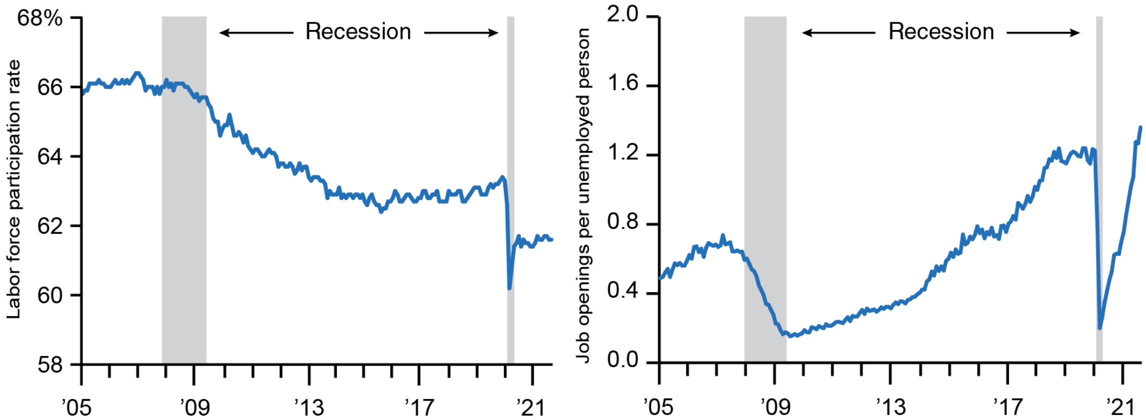
Since early 2021, accelerating price and wage increases have been a key feature of the economy. As the economy reopened from the pandemic, consumer demand soared, supply chains were slow to adapt, and prices rose at their fastest pace in nearly 40 years. At the same time, labor shortages increased wages—creating concern that a self-reinforcing “wage-price spiral” may be emerging. The wage-price spiral theory asserts that when prices rise, workers demand higher wages; as wages increase, firms pass on the higher labor costs to consumers in the form of higher prices, and this process repeats in a self-sustaining cycle. Such a wage-price spiral was last observed in the persistently high inflation period of the 1970s. Although current economic literature finds no significant evidence that wage increases have led to price increases since the mid 1980s,[1] some observers wonder if the recent increases in both will result in a reemergence of wage-price spirals.

Recent Wage Pressures Driven by Unmet Labor Demand

The pandemic brought about big changes in the labor market. Workers left the labor force due to early retirement, childcare, health concerns, or other reasons. Today’s 61.8 percent labor force participation rate remains well below its pre-pandemic rate and job openings per unemployed person are at their highest rate since data collection began (see figure 1). As a result, employers are offering higher wages to attract workers.

[1] “On the Relationships between Wages, Prices, and Economic Activity”, Knotek and Zaman, Federal Reserve Bank of Cleveland, August 19, 2014.

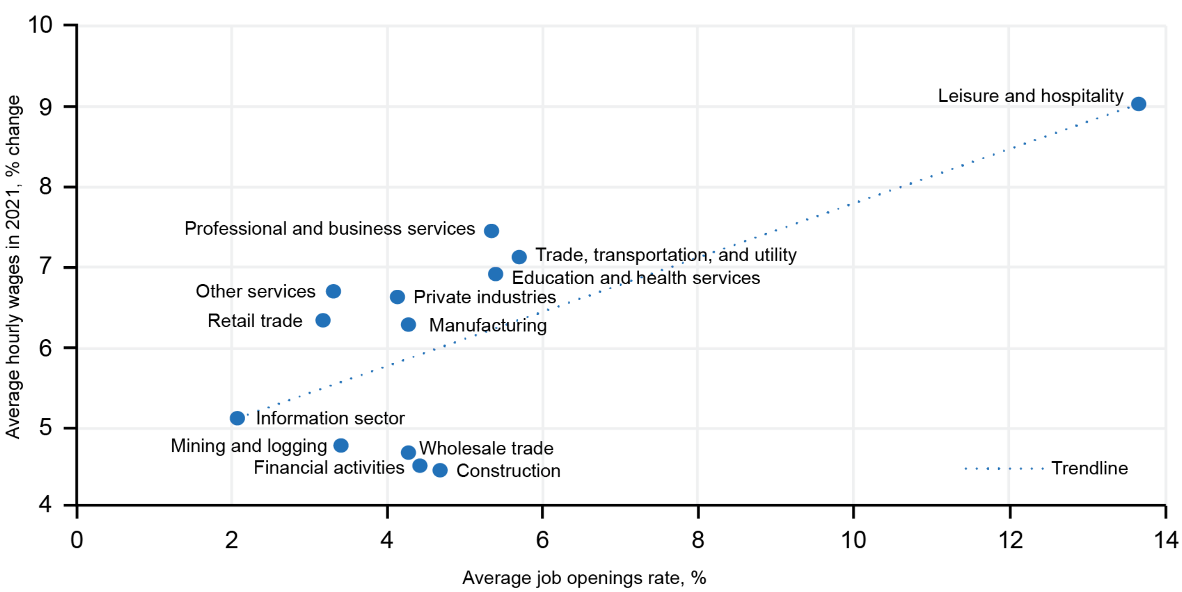
Figure 1: Strong Consumer Demand Met with Labor Shortage



Sources: Bureau of Economic Analysis (BEA); Bureau of Labor Statistics (BLS)

Worker compensation, as measured by the Employment Cost Index, rose 1.3 percent in the third quarter of 2021, the fastest pace since 1991. Data suggest that unmet labor demand is driving recent wage pressures, and the industries with the fastest pace of compensation growth this year are generally the industries with a higher percentage of unfilled positions. Since the beginning of 2021, average hourly wage increases are larger for industries with higher demand for workers, as defined by the ratio of job openings to total employment (see figure 2). Leisure and hospitality, the industry with the highest average job openings rate from January to November 2021, had the highest wage growth since January 2021. The industries that ranked next highest in job opening rates—professional and business services; trade, transportation, and utilities; and education and health services—were the industries with the next highest wage gains over the past year.

Figure 2: Wage Gains Greater in Industries with More Job Openings



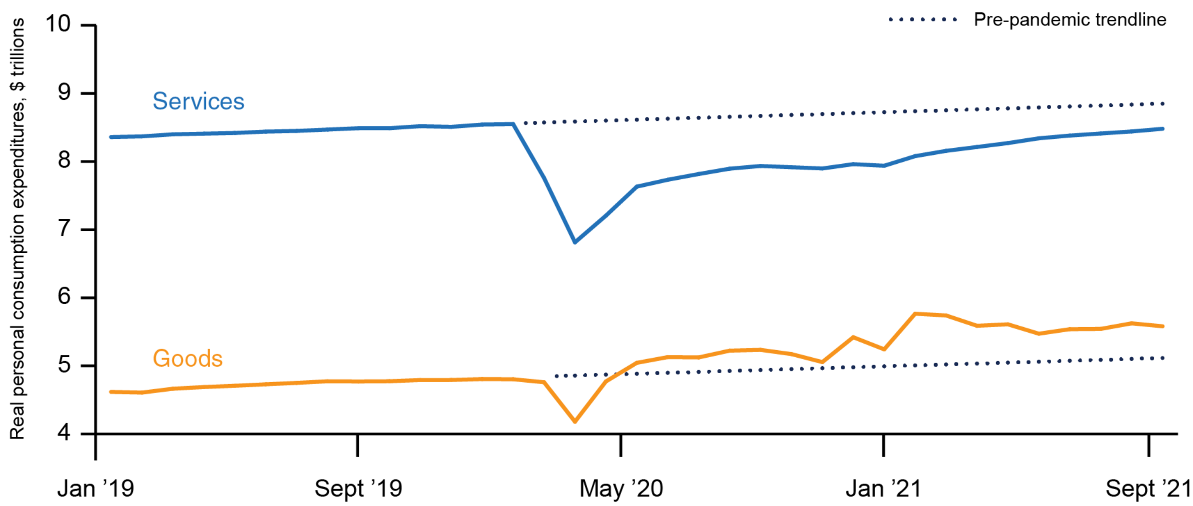
Source: BLS; OCC Economic & Policy Analysis (E&PA) calculations

Note: The average job openings rate is the monthly average of job openings to total employment from January to November 2021. The percent change in average hourly wages in 2021 is computed from January to December 2021.

Is the U.S. Economy at the Cusp of a 1970s-Style Wage-Price Spiral?

While labor shortages triggered higher wages, consumer prices are also rising. In December 2021, consumer prices increased 7 percent from the previous year, the fastest year-over-year growth pace since 1982. Data suggest that strong consumer demand is driving the currently accelerating pace of price increases (see figure 3). Government stimulus programs designed to combat the economic effects of the pandemic greatly increased personal income and savings, enabling more spending. And because many service businesses were closed or curtailed operations, this robust consumer spending bid up the prices of consumer goods, many of which were already under pressure from supply constraints. Not surprisingly, the consumer spending categories with the largest spending increases also had the largest price increases since the pandemic's start. For example, categories with the largest consumer price index (CPI) gains since February 2020—durable and nondurable goods, food away from home, and household furnishings—also had higher consumer spending over this period.

Figure 3: Consumption of Goods is Well Above Trend

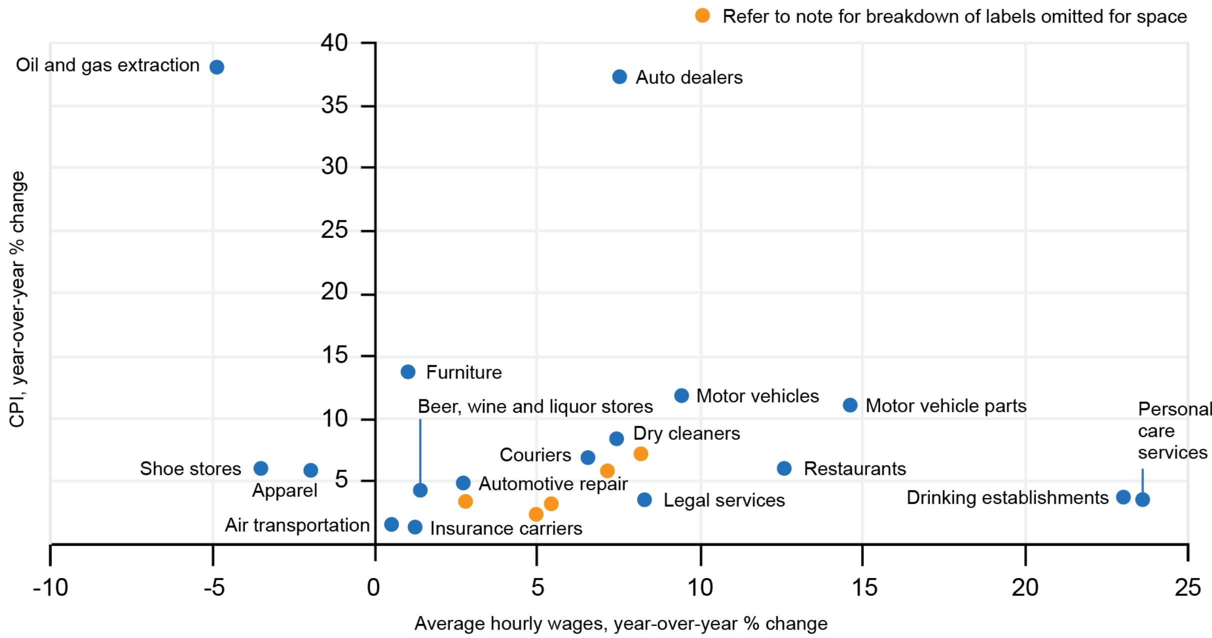


Sources: BEA, BLS

To what extent are the higher prices driven by higher wages? Figure 4 matches CPI industry categories to their respective industry category for hourly earnings of nonsupervisory workers. There appears to be little relation between wage and price increases since January 2021. The industries with higher wage growth are not associated with larger price increases in their corresponding CPI industry categories.[2] This suggests that price increases so far have been driven by the intersection of limited near-term supply and robust demand, not necessarily higher labor costs.

[2] Alternative time horizons and lag structures were considered to determine if wage growth led price growth, but no correlation was found. Although some research found evidence that inflation helps predict wages, there is no evidence showing wage growth is a significant factor in predicting price growth. See Luojia Hu and Maude Toussaint-Comeau, "Do Labor Market Activities Help Predict Inflation?" *Economic Perspectives* 34, no. 2 (2010),

Figure 4: Recent Changes in Wages are not Correlated With Changes in Prices



Sources: BLS; OCC E&PA calculations

Note: Changes in the consumer price index are from December 2020 to December 2021; changes in average hourly wages are computed from June 2020 to June 2021. Industries marked with an orange dot are, from left to right, water, sewage & other systems; death care services; depository credit intermediation; pet care services (excluding veterinary); and jewelry, luggage/leather goods stores.

However, the recent period of accelerating wages and prices has only just emerged, and wage-price spirals take time to build. If prices continue to rise at a faster pace, there is an increased risk it will lead to more widespread wage increases unless businesses can offset higher wage rates through greater productivity.[3] A survey by The Conference Board finds businesses are increasing their 2022 budgets by nearly 4 percent to account for wage increases, and these businesses cited wage growth for new hires and inflation as the main causes behind their increased 2022 salary budgets.[4]

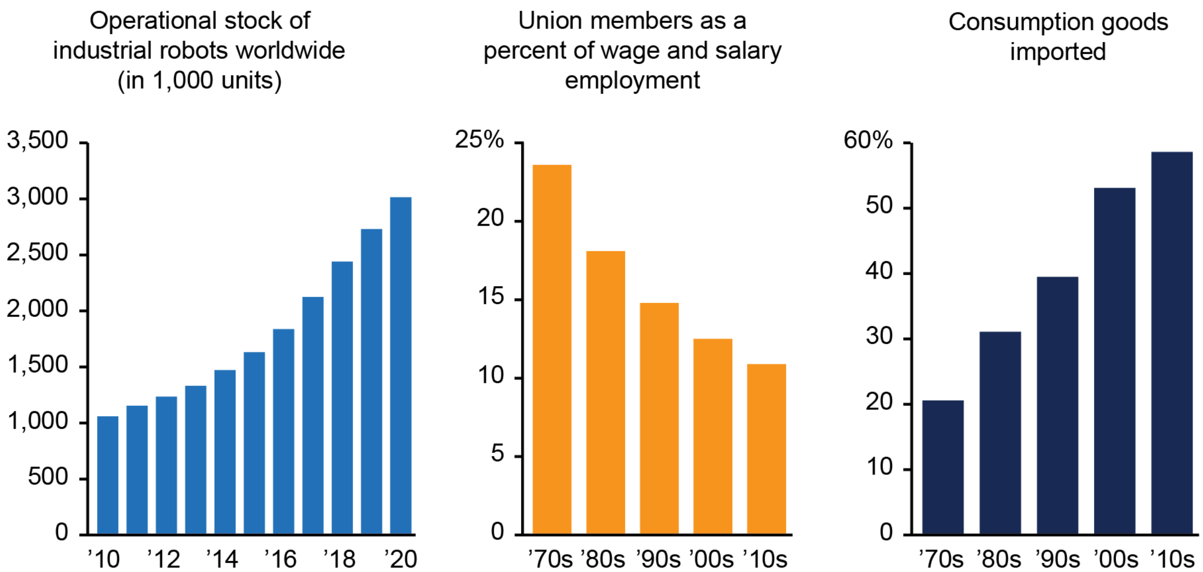
This Is Not the 1970s, so Maybe Not

Despite rising prices and wages, several mitigating factors play a larger role today than in the 1970s. Automation and globalization have increased over the past forty years while union membership has been declining (see figure 5). Increases in automation and the use of technology can boost labor productivity and alleviate the impact of labor shortages. Productivity increases, in turn, can allow wages to increase while keeping production costs steady, because fewer workers are needed. With developments in artificial intelligence, the market for automation has taken off, providing a way for companies to produce more with less labor. The increased use of robotics and other technologies will continue to weaken the link between rising wages and rising prices.

[3] Increased use of nonlabor inputs can increase the amount of output produced by each worker, reducing the total number of workers needed (e.g., increased use of self-checkout stations at retail stores or automated teller machines at banks increase labor productivity as fewer staff are needed to serve any given level of customer sales/demand).

[4] The Conference Board, "2022 Salary Increase Budgets Are the Highest Since 2008," December 2021.

Figure 5: Factors Impeding a Wage-Price Spiral



Sources: International Robotics Federation; Bureau of Labor Statistics.

In the 1970s, 24 percent of the workforce belonged to a union, giving unions sufficient leverage to push through automatic wage escalation clauses. In response to ingrained inflation expectations, average annual wage increases ranged from 5 to 15 percent over the life of major collective bargaining settlements negotiated in the early 1970's.[5] However, union membership has dropped in each decade since the 1970s and now only accounts for slightly more than 10 percent of the U.S. workforce. Lower union membership means less bargaining power for workers to obtain raises that keep up with inflation. Further, economies today are more interconnected than they were in the 1970s, reducing the negotiation leverage of individual workers and unions in any one country. Globalization makes it harder for domestic businesses to raise prices if lower wages enable overseas competition to undercut domestic prices.

Taken together, increased use of automation, lower union membership, and globalization are likely to constrain the reemergence of a wage-price spiral.

The Point?

Despite rising wages and prices, changes to the economy over the past 40 years make a self-reinforcing wage-price spiral less likely than in the 1970s.

[5] Wachter, Michael L. "The Wage Process: An Analysis of the Early 1970s". *Brookings Papers on Economic Activity, Vol. 1974, No. 2 (1974),* pp. 507–525.