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# What's Trending: Inflation

Economist(s)

**Sarah House**
Senior Economist | Wells Fargo Securities, LLC
sarah.house@wellsfargo.com | 704-410-3282

**Shannon Seery**
Economist | Wells Fargo Securities, LLC
shannon.seery@wellsfargo.com | 704-410-1681

**Sara Cotsakis**
Economic Analyst | Wells Fargo Securities, LLC
sara.cotsakis@wellsfargo.com | 704-410-1437

## Summary

Inflation has again become a hot topic among analysts as they consider to what extent prices are set to rise once COVID is better controlled and the full effects of recent fiscal support take hold. The 12-month change in the consumer price index (CPI) remained unchanged in January at a modest 1.4%, but the disinflationary impulse from the pandemic appears to be abating. Increased demand expectations alongside continued supply constraints leave analysts trying to gauge the degree inflation could rise this year.

Notably, the overall level of consumer prices is already *above* its pre-COVID trend. This suggests that on net, there is no ground left to "make up." The fact that the price level has already recovered to trend despite total U.S. output remaining below its prior peak suggests inflation dynamics may be shifting toward an environment of stronger price growth. The question then is less *if* inflation will strengthen this year, but *by how much?*

In this report, we present three inflation scenarios in an attempt to construct a sensitivity analysis around how much prices could grow in the next year or two based on where items are relative to their pre-COVID trend. Our aim in this exercise is not to pinpoint exactly how strong inflation will be, but to provide some guideposts for the pace of inflation in an environment where COVID is better controlled and consumer spending is poised to boom.

**Scenario Summary & Policy Implications**

**Projected Annual Changes in Inflation**

By Inflation Measure & Scenario, Annual Growth Rates

| | High Scenario | Moderate Scenario | Low Scenario |
|---|---|---|---|
| CPI | 2.9% | 2.3% | 1.8% |
| Core CPI | 3.4% | 2.7% | 2.2% |
| PCE | 2.6% | 2.0% | 1.6% |
| Core PCE | 2.9% | 2.3% | 1.8% |

**High** = Above-trend items grow at 2010-19 trend pace & below-trend items at pace to reach extended trend in 12 months
**Moderate** = Above-trend items grow at 2010-19 trend pace & below-trend items at pace to reach extended trend in 24 months
**Low** = Above-trend items grow at half 2010-19 trend rate & below-trend items at pace to reach extended trend in 24 months

Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities

**High-inflation scenario:**

- Likelihood of the Fed raising rates sooner than currently anticipated rises materially and fiscal support is harder to come by as the economy appears to be overheating.

**Moderate-inflation scenario:**

- The Fed's higher tolerance of inflation would be tested and timing of tightening *could* be pulled forward. Accelerated tightening timeline would depend on the extent of the labor market recovery and if inflation expectations become unmoored. Fiscal support is still possible, but more resistance/hesitation likely.

**Low-inflation scenario:**

- Monetary policy would remain accommodative for the foreseeable future amid tame inflation. Increased likelihood of additional fiscal support.

## To What Degree Will Inflation Strengthen?

Speculation that inflation may finally break out of its decade-long slumber has grown in recent months. The initial disinflationary impulse from the COVID pandemic as economic activity ground to a halt increasingly looks to be short-lived. The opening of the fiscal taps and the rapid pace of vaccine development is expected to lead to a surge in demand later this year. Meanwhile, there are growing doubts that supply will be able to meet this demand with manufacturers' backlogs already high and capacity in the service sector reduced by the pandemic. Rising inflation expectations could turn the possibility of higher inflation into a reality in a self-fulfilling prophecy.

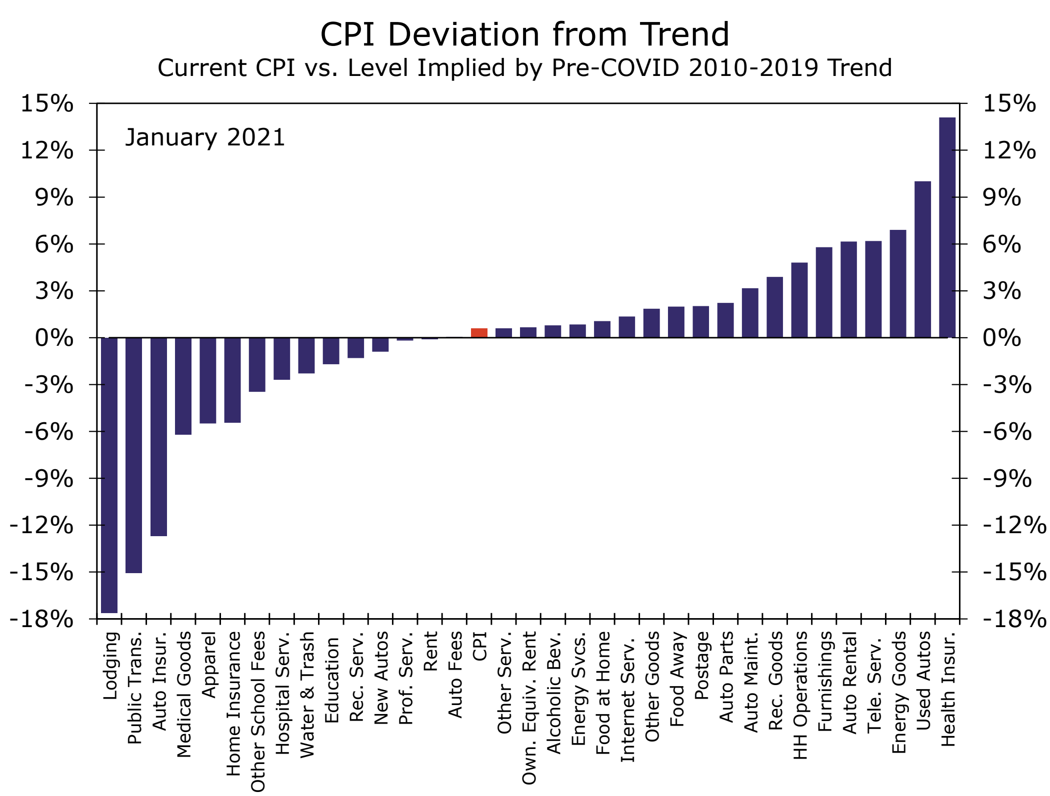
While there is a general consensus around the likelihood of inflation strengthening over the next year or two, there is still much uncertainty as to what degree. In contrast to the previous downturn when demand fell broadly and use of the economy's productive capacity tumbled, the effects of COVID have been highly uneven across sectors. Prices for many physical goods have soared amid a rapid shift in spending that has coincided with supply disruptions brought on by the public health crisis. In contrast, prices for many services incompatible with social distancing have plunged. As a result, prices for some items look poised to snap back when economic activity normalizes, while prices for other items are likely to grow more slowly, if not decline outright.

***There is still much uncertainty as to what degree inflation will strengthen over the next year or two.***

## CPI Inflation Scenario Analysis

Amid the crosscurrents of pandemic winners and losers, how might inflation shake out? To look at this, we employ a bottom-up view of the entire Consumer Price Index (CPI) basket. Specifically, we break down the CPI into 34 categories to see which elements are already above their pre-COVID trend level (defined as 2010-2019), and which are below, to see where price increases might have the most room for "pay back" or "catch up." [1] Figure 1 shows the varied picture we described above. Prices for some items, especially those where demand has plummeted due to social distancing efforts, are well below the level implied by their pre-COVID trend rate of growth. Prices for other items that have seen demand jump or input costs rise significantly are materially above trend.

Figure 1




Source: U.S. Department of Labor and Wells Fargo Securities

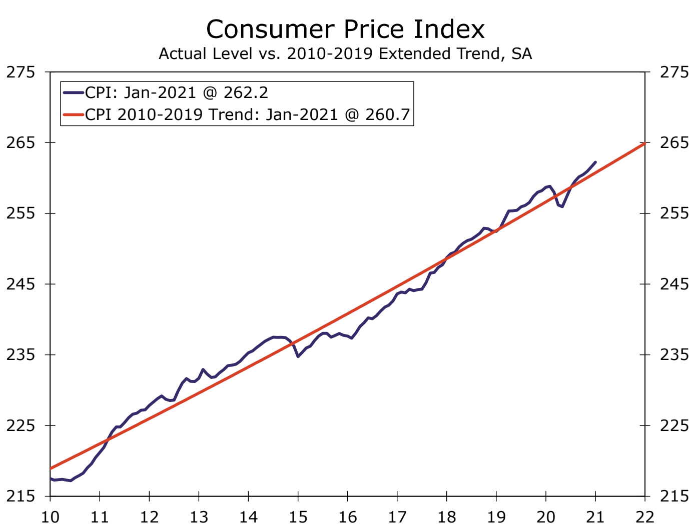
***The overall level of consumer prices is already above its pre-COVID trend.***

Notably for what has been considered to be a demand-sapping event, however, is that the overall level of consumer prices is already above its pre-COVID trend (Figure 2) and the level of core prices is only a touch (0.1%) below. This suggests that on net, there is little-to-no ground left to "make up." Moreover, with output still 2.5% below its prior peak, the fact that the price level has already recovered to trend suggests inflation dynamics may already be shifting toward an environment of stronger price growth.

What might the unwinding of the immediate price effects of COVID look like alongside the broader inflationary forces of extraordinarily supportive fiscal and monetary policy? For a sensitivity analysis around inflation over the next year, we create three scenarios. In a "high-inflation" scenario, we assume that categories with prices currently below their pre-COVID trend level "catch up" to trend over the next 12 months. To do that, inflation in this group would need to rise 5.9% over the next 12 months, a marked pickup after prices for this group rose just 0.2% over the past year. With households having ample means to spend after a year of staying at home and significant fiscal transfers, we also assume that prices for above-trend categories grow at their historic pace, rather than experience "pay back" that brings them back to trend over the period. That assumption would have prices for categories already above their pre-COVID path *rise* 1.4% in the year ahead versus *declining* roughly 1% if they merely reverted to trend.

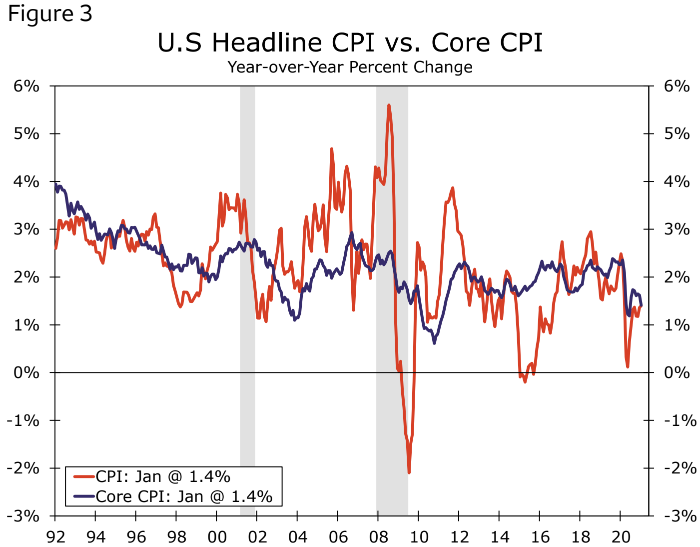
In total, CPI inflation would rise just shy of 3% over the next 12 months under this scenario. That would be toward the top end of the past decade's range, but not completely unfamiliar territory (Figure 3). However, categories with "catch up" to do comprise a larger share of the core index. Therefore, the same exercise for core CPI shows an increase of 3.4% over the next 12 months, which would be significantly higher than at any point since the early 1990s.

Figure 2




Source: U.S. Department of Labor and Wells Fargo Securities

Figure 3




Source: U.S. Department of Labor and Wells Fargo Securities

Could getting prices back to their pre-COVID trends for hard-hit sectors like hotels, airfare and apartment rents in just another 12 months be overly optimistic? In a more "moderate" scenario, we assume it takes two years instead of one for prices in below-trend sectors to return to trend, while prices in categories already above their pre-COVID paths still grow at the previous cycle's pace. Under this scenario, headline CPI would grow about 2.3%, while core CPI would grow roughly 2.7%—still above the high watermark set last cycle.

Finally, what would happen to inflation if we see at least some "pay back" for categories where prices are already above trend? In our "low-inflation" scenario, we still assume it takes two years for prices in below-trend sectors to return to trend, but prices in categories already above trend grow at just half the previous cycle's pace. This causes headline CPI to grow about 1.8%. Core CPI would grow roughly 2.2%, which is toward the top, but within, the previous decade's range.

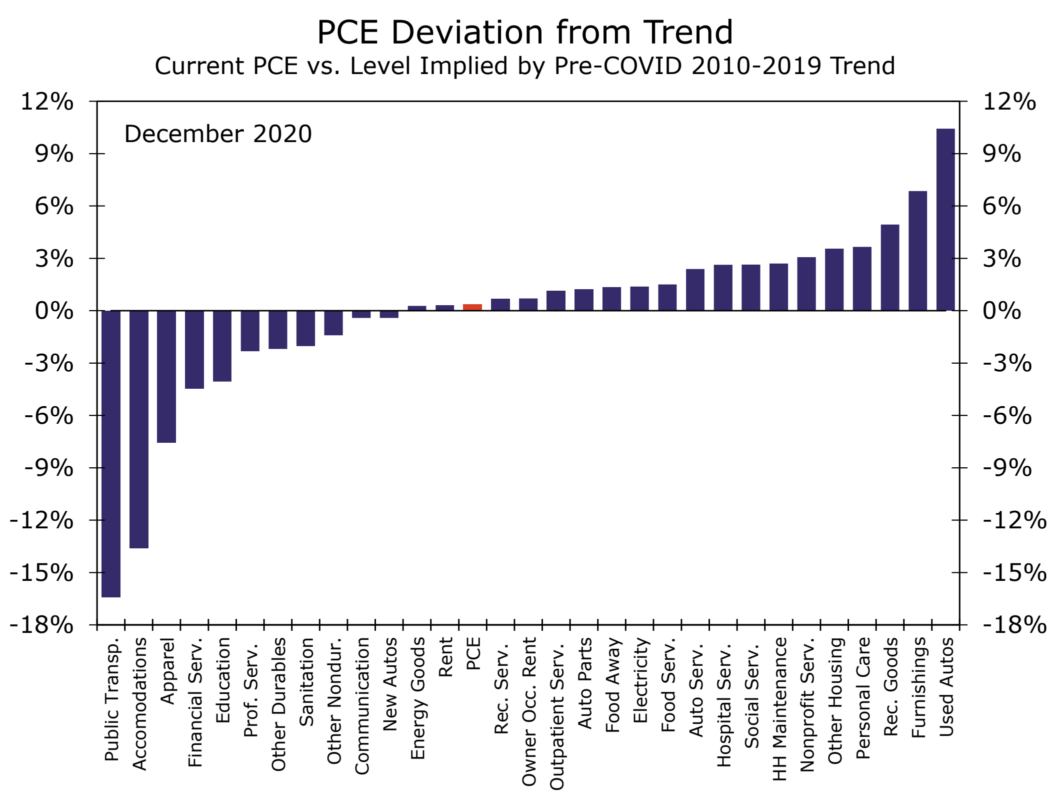
Could prices for some below-trend items grow even faster than what it takes to get back to trend in the next 12 or 24 months? Sure. For example, prices for new vehicles would need to rise 1.5% over the next 12 months for the index to get back in line with its pre-COVID trend, but semiconductor shortages along with broadly strengthening demand could contribute to even stronger price growth. On the flip side, however, prices for some items, such as health insurance, are so far above trend at present, assuming they grow at their historic rate seems fairly generous. Our aim in this exercise is not to pinpoint exactly how strong inflation will be, but to provide some guideposts around inflation in an environment where COVID is better controlled and consumer spending is positioned to boom.

## How Does This Translate to PCE Inflation?

***The same analysis across categories of the PCE deflator—the Fed's preferred inflation measure—yields a similar outcome.***

While the CPI is the most familiar price index to most Americans and used by some government agencies (e.g., the Social Security Administration) or segments of financial markets (e.g., Treasury Inflation Protected Securities (TIPS)), monetary policymakers prefer the PCE deflator. The PCE deflator is different from the CPI in both scope and construction, so we employ the same scenario analysis to the headline and core PCE deflators[2] (Figure 4). Like the CPI, the PCE deflator was already above its pre-COVID path (+0.4), while the core deflator was a tick higher above trend (+0.1%, both as of December). As for inflation ahead, Table 1 reveals a similar outcome. In our most conservative scenario, inflation continues to struggle to meet the Fed's target, while our moderate and high scenarios both point to notably stronger inflation compared to the past decade.

Figure 4




Source: U.S. Department of Commerce and Wells Fargo Securities

## Implications and Considerations for Fed Policy

Our low-inflation scenario suggests inflation would remain tame over the next few years. With the Fed’s new policy framework emphasizing PCE inflation *averaging* 2% over time after a decade in which it averaged 1.6%, it looks safe to assume monetary policy would remain accommodative for the foreseeable future. Inflation expectations would also likely be tamped down if actual inflation failed to pick up in a material way, making it even harder for the Fed to meet the price stability portion of its goals.

Under our moderate-inflation scenario, however, core inflation would rise to a point that would at least test the Fed’s higher tolerance on inflation. The Federal Open Market Committee (FOMC) is currently aiming for inflation “moderately above 2%.” We believe core PCE inflation running at a 2.3% pace would fit the bill, and could possibly pull the timing of the FOMC eventually lifting the Fed funds rate forward if that pace looks sustained.

***An accelerated tightening timeline is not necessarily a done deal under our moderate inflation scenario.***

That said, an accelerated timeline for tightening would not necessarily be a done deal under our moderate scenario. While high relative to the past decade or two, core PCE at 2.3% hardly suggests inflation is out of hand, especially if headline inflation is running a bit lower. We believe the Fed is less concerned about a pickup in inflation at present and more worried about prolonged labor market scarring. Therefore, if the labor market's recovery remains incomplete and inflation expectations do not come unmoored, the FOMC could very well still hold off on raising the Fed funds rate until at least 2023, in our moderate scenario.

If prices snap back more quickly like in our high-inflation scenario, however, the likelihood of the Fed raising interest rates sooner than currently anticipated rises materially. Even if the labor market is still recovering, we would suspect Fed officials would feel more pressure to respond if core PCE inflation approached 3%, particularly if inflation expectations followed realized inflation higher. The accelerated timeline for raising rates would lead to broadly tighter financial conditions and contribute to slower growth. Fiscal support for pockets of the economy still struggling from the downturn may also be harder to come by in our high-inflation scenario if it appears the economy is broadly overheating, even as real incomes are eroded by the jump in inflation.

Yet even in this scenario, there are nuances to consider. The duration for which it looks like core PCE inflation might rise around 3% will matter. Fed Chair Powell has already hinted that the FOMC may consider a jump in inflation driven by the economy's full re-opening as temporary and look through it, similar to a spike in energy prices. If inflation expectations do not follow realized inflation higher, the FOMC may still exude patience in raising rates again as it awaits to see if the dynamics keeping inflation low in recent years—weaker expectations, technology, market share battles, demographics and globalization—are indeed shifting and point to inflation *staying* notably above the Fed's 2% goal.

## Endnotes

[1] We calculate the pre-COVID linear trend, which we define as 2010-2019, of 34 categories that comprise the entirety of the CPI. We compare the actual January 2021 index level per category to where prices would be in January 2021 based on their pre-COVID trend. For example, the index for used car prices was 151.7 in January, or 10% *above* the extended 2010-2019 trend value for that month (137.9). On the other end of the spectrum, the lodging away from home index (i.e., hotel prices) was 142.8 in January versus its projected trend level of 173.4, or nearly 18% *below* trend. (Return to Section)

[2] We conduct the same analysis for 30 categories that comprise the entirety of the PCE deflator. We compare the actual December 2020 (the latest data available) index level per category to where prices would be in December 2020 based on their pre-COVID trend. (Return to Section)

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**Economics Group**


| | | | |
|---|---|---|---|
| Jay H. Bryson, Ph.D. | Chief Economist | (704) 410-3274 | jay.bryson@wellsfargo.com |
| Mark Vitner | Senior Economist | (704) 410-3277 | mark.vitner@wellsfargo.com |
| Sam Bullard | Senior Economist | (704) 410-3280 | sam.bullard@wellsfargo.com |
| Nick Bennenbroek | International Economist | (212) 214-5636 | nicholas.bennenbroek@wellsfargo.com |
| Tim Quinlan | Senior Economist | (704) 410-3283 | tim.quinlan@wellsfargo.com |
| Azhar Iqbal | Econometrician | (212) 214-2029 | azhar.iqbal@wellsfargo.com |
| Sarah House | Senior Economist | (704) 410-3282 | sarah.house@wellsfargo.com |
| Charlie Dougherty | Economist | (704) 410-6542 | charles.dougherty@wellsfargo.com |
| Michael Pugliese | Economist | (212) 214-5058 | michael.d.pugliese@wellsfargo.com |
| Brendan McKenna | International Economist | (212) 214-5637 | brendan.mckenna@wellsfargo.com |
| Shannon Seery | Economist | (704) 410-1681 | shannon.seery@wellsfargo.com |
| Jen Licis | Economic Analyst | (704) 410-1309 | jennifer.licis@wellsfargo.com |
| Hop Mathews | Economic Analyst | (704) 383-5312 | hop.mathews@wellsfargo.com |
| Nicole Cervi | Economic Analyst | (704) 410-3059 | nicole.cervi@wellsfargo.com |
| Sara Cotsakis | Economic Analyst | (704) 410-1437 | sara.cotsakis@wellsfargo.com |
| Coren Burton | Administrative Assistant | (704) 410-6010 | coren.burton@wellsfargo.com |

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