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"Pandemic Ebbs and Flows: Economic Data, Inflation Concerns, and Policymaking"

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The views expressed today are my own, not necessarily those of my colleagues on the Federal Reserve Board of Governors or the Federal Open Market Committee.

Good morning. Even though this event is being held virtually, it is wonderful to be with the Boston College community today. Thank you for inviting me to participate in this webinar series, focused on aspects of life after the COVID pandemic. Clearly, we have all learned a great deal during this extremely difficult period. Now, as we contemplate and work towards a recovery – in both public health and the economy – it is important to keep learning, to continue applying those lessons even after the crises fade, and to keep analyzing data and policy options with rigor – and without overreacting to the inevitable temporary ebbs and flows that may show up in high frequency economic data. The analysis I will share with you today, I hope, will reflect this perspective.

I'd like to begin with an overview of the main points I will cover today.

I'll start on an optimistic note, recognizing that half of the adult population, or more, in each New England state has already received one dose of a COVID-19 vaccine. In fact, all six states in the region are among the top ten U.S. states with the highest percent of their population with at least one vaccine dose. As a result, New England residents and businesses can contemplate a somewhat more normalized summer. Indeed, high frequency data on economic activity indicate that air travel is picking up, as are visits to restaurants – suggesting that industries hard hit by social distancing are now beginning to recover. And the New England economy, like the national economy, is in the process of experiencing rapid growth in real output and notable improvements in payroll employment relative to the levels seen at the depths of the pandemic.

Despite the improved public health outlook and the expansion in economic activity, it is very important to note that significant slack remains in the economy. U.S. unemployment in

March was still elevated compared to pre-pandemic readings. And the unemployment rate does not include the millions who have left the workforce since the pandemic began. The labor force participation rate, measured by the percent of the population in the workforce, whether employed or unemployed, remains depressed. Therefore, while rapid economic growth is very good news, it was, and still is, badly needed to offset the sizable shock that occurred with the COVID-19 pandemic.

The strong outlook for the economy is not just reflecting the progress toward normalization of the public health situation and the resulting reopening of businesses; it is also the result of aggressive government policy actions. Fiscal policy has been unusually stimulative, and in some innovative ways, providing a major boost to the pandemic-shocked economy. The stance of monetary policy has also remained highly accommodative, as the Federal Reserve's new policy implementation framework places emphasis on realized, rather than expected, outcomes as part of material shifts in policy.[1] This implies that current policy will remain accommodative until the labor market can consistently help deliver on the Fed's 2 percent inflation goal, as is described in the most recent statement by the Federal Open Market Committee (FOMC).[2]

Given the strong support from both fiscal and monetary policy, some analysts are worried that inflation – dormant for most of the past decade, if not longer – could pick up significantly. As I will discuss today, a number of temporary factors are likely to make measured inflation this spring higher than its underlying and more informative trend. These factors, to a large degree, are the result of the ebbs and flows of the pandemic, which has produced unusual patterns in the monthly economic data.

Indeed, payroll employment, retail sales, and inflation numbers have all been influenced by pandemic-related events. As a case in point, at the outset of the pandemic the contraction in payroll employment and retail sales led to a notable decline in prices and a slowdown in the associated 12-month measures of inflation, such as the Consumer Price Index (CPI) and the Personal Consumption Expenditures (PCE) Price Index. However, as the weak March and April inflation readings of last year drop out of the 12-month computation, measured inflation will rebound, largely reflecting the reversal of deflationary pressures that occurred in late spring and early summer of last year.

Other factors are also likely to distort the inflation numbers this spring. Oil prices, which declined dramatically as travel fell, have increased significantly of late. Pent-up demand for goods has resulted in the rise of shipping costs, and delays in unloading at ports have made it difficult for many businesses to restock their shelves. All these factors will likely result in temporary increases in prices.

The Federal Reserve is, and should be, focused on the underlying rate of inflation, and not on temporary price fluctuations, such as the ones just mentioned. In this regard, inflation expectations remain stable, compensation and wages have yet to expand at rates that would drive accelerating inflation, and the most likely outcome remains that inflation will normalize close to 2 percent.

Monthly economic data can grab attention and fuel concern, so this is an important time to recognize distortions in the higher frequency data brought by the pandemic. In short, it will be important to differentiate between temporary and longer-term trends. Of course, policymakers will need to be vigilant in making sure that the post-pandemic economic environment does not

bring structural changes that would lead to wages and prices being more responsive to tightening labor market conditions.

Ebbs and Flows in the Economic Data

Figure 1 provides a cell-phone-based mobility index that a data provider calculates based on tracking foot traffic to different points of interest. At the beginning of the pandemic, government-mandated shutdowns and concern with public health caused most of the public to stay in their residences, and as a result the mobility index fell precipitously. As government mandates lifted and people and firms adapted market transactions to social distancing needs, mobility increased. With progress in vaccinations since the height of the second wave in the winter, many people are once again enjoying enhanced mobility. It is important to note that while mobility has clearly improved, it remains about 15 percent below 2019 levels.

This pattern can be seen even more clearly in the next slide. **Figure 2** provides high frequency spending data, again compared to the same period in 2019, but this time spending that requires close personal contact is separate from spending that does not. Consumer spending patterns on goods and services less sensitive to social distancing already mirror 2019 spending patterns. However, spending that is more sensitive to social distancing – such as tourism and travel – remains more than 20 percent below 2019 levels, even though it has improved significantly since the onset of widespread vaccinations.

It is my view that the ebbs and flows of spending sensitive to social distancing have implications for future growth. The impact of the pandemic on such spending is worth noting.

At the outset of the pandemic social-distance-sensitive spending fell, rebounded quite rapidly when infections were low, fell again in the fall with a resurgence of cases, and has rebounded more recently as vaccines have rolled out. While much progress has been made, one reason to continue to expect strong growth in employment and real GDP going forward is that there are a variety of industries still impacted by the pandemic. Policymakers expect these effects to further diminish as a higher percentage of the population is vaccinated and the infection rate diminishes further.

The same pattern can be seen in the more traditional retail sales data. **Figure 3** provides the monthly ebbs and flows in retail sales. Again, we see a similar pattern – a sharp decline at the outset of the pandemic, a pick-up as COVID cases fell in the summer, a decline in the fall with higher case counts, and a recent pick-up as more people are being vaccinated. In short, the economic data, and in this case retail sales data, are strongly showing the impact of the pandemic.

As previously mentioned, more than pandemic-driven business re-openings are driving consumer spending. Many individuals fortunate enough to have not lost their job have increased their saving rate during the pandemic. This, in addition to the support from government transfers, was largely because many households reduced their discretionary spending given the public health concerns. As many individuals now have more opportunities to spend, that increased savings represents pent-up demand for goods and services that were restricted during the pandemic. The release of this pent-up demand should lead to strong growth going forward. In fact, consumption last quarter expanded more than 10 percent. This expectation of strong consumption is one reason that at the March meeting of the FOMC, the median real GDP growth

forecast for 2021was 6.5 percent – a much faster pace of growth than what we normally experience in the United States.

With an expected surge in spending, low interest rates, and stimulative fiscal policy, some commentators have highlighted risks that inflation will pick up quickly. **Figure 4** shows the April forecasts of the Blue-Chip forecasters, roughly 50 private-sector economists. The left panel shows the distribution of their individual forecasts for inflation for 2021. The average of the forecasts is 2.3 percent. In addition, the forecasters are tightly clustered between 2.1 and 2.5 percent, with only a few isolated forecasters either above or below that range.

The right panel shows the distribution of Blue Chip forecasts for inflation for 2022. Here the average is 2 percent, somewhat below this year's average expectations. However, the 2022 forecasts are now more dispersed, with most forecasts between 1.6 and 2.4 percent. Seventeen forecasters expect an inflation rate above 2 percent in 2022, while 21 forecasters expect a rate lower than 2 percent. And, the median for 2022 – 2 percent – is also the mode with 9 economists forecasting a rate of 2 percent in 2022. Overall, these private-sector forecasters expect slower price increases in 2022 than 2021. This indicates that many prominent forecasters expect somewhat more pronounced price increases in the near term, but that these increases will be temporary and as such, will not significantly alter the underlying rate of inflation. Still, many of them expect that once these temporary increases have dissipated, the inflation rate will remain noticeably above 2 percent next year.

I will now spend a few moments investigating with you why this uncertainty is a feature of the inflation outlook.

Ebbs and Flows – Versus Trends – in Inflation

Figure 5 shows the monthly changes in the CPI and PCE inflation indices.[3] Like the spending data, inflation data show substantial effects from the pandemic. As the economy was closing down in the early days of the pandemic, prices were being heavily discounted. As the economy surged with reduced infections and a reduction in restrictions over last summer, monthly prices rose quite rapidly. With a rise in infections as we approached winter, price increases were again subdued; and now prices are again rising as people get vaccinated.

These price movements, intertwined with the ebb and flow of the pandemic, cause unusual patterns in the monthly inflation data. While the monthly data normally show only modest fluctuations, the data for the past year are quite variable. This implies that annual averages of inflation will be impacted noticeably by these oscillations in the monthly readings. For example, as the updated, rolling annual averages no longer include the initial months of the pandemic, large negative observations will be dropped – which will cause the measured inflation over the past year to rise. Ideally, we should all focus on the more durable *underlying* price increases and recognize that the choppiness of the data will cause some ebbs and flows in annual averages, largely tied to what was occurring with the pandemic last year.

In addition to the pandemic causing volatility in measured inflation, commodity prices like oil are highly sensitive to current economic conditions. **Figure 6** shows that oil prices have increased substantially from a year ago. However, the magnitude of the increase reflects how weak oil prices were at the outset of the pandemic. **Figure 7** illustrates that both oil prices and the total PCE show significant movements depending on what was happening with the pandemic

(a sharp drop as the pandemic began, for example, and dips when cases flared up mid to late 2020).

Supply disruptions are also affecting prices in the short run. Many firms are currently complaining that they cannot get intermediate goods for production, or that it has become increasingly costly and time consuming to replenish inventories. Ports have had difficulty unloading ships, resulting in back-ups. **Figure 8** shows a measure of shipping costs, which indicates that as pandemic restraints have been lifted, the cost of shipping has risen markedly.

Figure 9 highlights that import prices have exhibited significant movements related to the pandemic. Foreign producers dropped prices as the pandemic began, but with surging demand and many impediments to production arising in many developing countries, prices of imports have been rising.

The supply constraints occurring with surging demand are particularly problematic for some firms, because of their reliance on just-in-time inventory processes. While keeping inventory levels low reduces carrying costs, it also means that many goods may be in short supply in the near term. **Figure 10** shows that inventories declined significantly at the outset of the pandemic and still lag pre-pandemic levels quite significantly. As a result, in addition to a surge in consumer demand, many firms are trying to rebuild their inventories.

In sum, as all these charts illustrate, we should expect that measured inflation will accelerate this spring. However, my view is that this acceleration in the rate of price increases is likely to prove temporary. Toilet paper and Clorox were in short supply at the outset of the pandemic, but manufacturers eventually increased supply, and those items are no longer scarce. Many of the factors raising prices this spring are also likely to be similarly short-lived.

However, the debate about whether trend inflation will rise as the economy strongly recovers, represented by the dispersion of Blue Chip inflation forecasts for 2022, will not be answered until next year.

Policy Implications

The Federal Reserve should be and is focused on underlying inflationary trends. One-time, temporary changes in prices should not impact the medium-term trajectory of inflation.

When people expect persistently higher inflation, it would follow that wages would begin to reflect these higher expectations. **Figure 11** shows that average hourly earnings are higher. However, it is important to appreciate a nuance: much of this trend reflects that, unfortunately, firms impacted by social distancing reduced staff that were generally lower paid, and this made the calculation of average hourly earnings rise. The employment cost index controls for composition changes in the workforce, and to date is not showing much change.

Figure 12 summarizes the outlook for inflation from the Blue Chip forecasters. Despite the ebbs and flows of the data, inflation is expected to remain close to 2 percent over the forecast horizon. This does seem to me to be the most likely outcome, which should allow monetary policymakers to be patient in removing accommodation, until more progress in the labor market has occurred.

However, the pandemic is likely to change some behaviors. Both spending patterns and work environments are likely to be altered by the pandemic. It is too early to know whether the economic relationships we observed pre-pandemic will behave similarly in the post-pandemic

era. It will be particularly important to see whether wages and prices continue to be relatively unresponsive to the tightening of the labor market.

Concluding Observations

With a shock as large as the pandemic, policymakers need to be alert to potential changes to the economy. To date, inflation expectations and the underlying inflation rate look to be stable. It is important to keep in mind the difficulty that was experienced in achieving inflation of 2 percent in the United States and most of the developed world after the Great Financial Crisis.[4] As a result, my perspective is that the emphasis on actual outcomes rather than forecasts of rising inflationary pressures when setting monetary policy appears justified. However, given the noise in the data, it will be important to carefully filter underlying inflation trends as labor markets tighten.

Thank you for having me today, and I wish you all an enjoyable – and healthy – spring and summer.

[1] For more discussion of the changes to the framework, see: Federal Reserve Board - 2020 Statement on Longer-Run Goals and Monetary Policy Strategy.

[2] For more discussion, see the April 28, 2021 statement by the Federal Open Market Committee (FOMC): https://www.federalreserve.gov/newsevents/pressreleases/monetary20210428a.htm.

[3] Economists typically measure inflation as inflation over the year – the percent change in either the CPI or PCE for a given month from the same month in the previous year (as is done in Figures 6 and 7). However, in Figure 5, to

emphasize the monthly pattern, we display the percent change from the previous month, and we do not annualize these monthly percent changes.

[4] For more discussion, see Oct. 14, 2016 remarks by Eric S. Rosengren, entitled: After the Great Recession, a Not-So-Great Recovery.