

A remarkable demand recovery and changed dynamics in goods and labor markets contributed to misjudgments

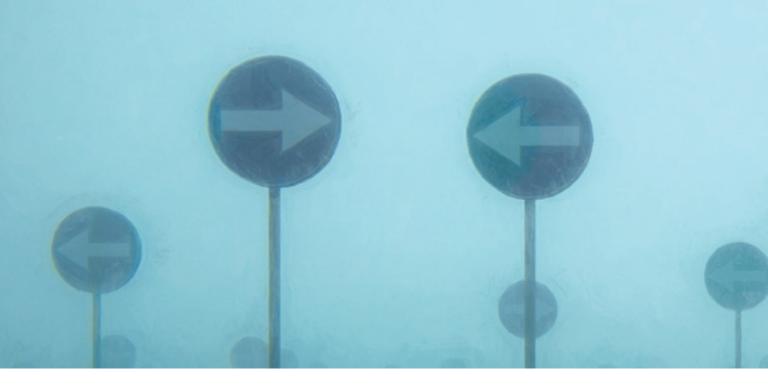
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acroeconomic forecasting is often likened to driving forward while looking through the rearview mirror. Indeed, the past tends to be a reliable guide to the future. When economies are hit by severely disruptive shocks, however, previously familiar economic dynamics may change and forecast misses become more prevalent. Still, the extent to which the rapid rise and persistence of the current wave of global inflation eluded most professional forecasters, including us at the International Monetary Fund, remains intriguing. One question naturally arises: Should we have seen this coming?

The IMF produces and publishes its World Economic Outlook forecasts on a quarterly

basis—these include GDP growth and inflation. We recently dissected the errors in our core inflation forecasts for the world's economies—that is, forecasts of inflation stripped of the volatile effects of food and energy price swings. Think of core inflation, which is tightly linked to many central banks' inflation targets, as a slow-moving object that is relatively easier to forecast. Large forecast errors for core inflation generally reflect inaccurate assessments of current and near-term demand and supply of goods and services.

Despite our repeated revisions to the inflation forecasts between the first quarter of 2021 and the second quarter of 2022, misses have been sizable and persistent. These inflation surprises preceded the Russian invasion of Ukraine. While the war



amplified inflationary pressures from the supply side through the disruption of global commodity markets, we argue that the pandemic shock and the ensuing economic recovery with strong fiscal backing provided the first spark. So how do we parse the evidence for our conjecture?

We conducted both ex post and ex ante analyses to better understand the economic drivers behind the inflation forecast misses. In the ex post analysis, we consider what we know today and what we can learn with the benefit of hindsight. In the ex ante analysis, we try to understand what we knew at the time but seem not to have sufficiently integrated into the inflation outlook.

Underprediction factors

We consider four factors that, with the benefit of hindsight, help us rationalize inflation underpredictions. First, as the pandemic shock hit, policymakers were quick to provide fiscal support to avoid deep scarring from the crisis. Still, forecasts projected some scarring, and output gap projections for 2021 foresaw a large contraction in economic activity compared with potential. Only in retrospect did it become clear that the output slump, relative to potential, was not as dire. Most world economies—almost 80 percent of world GDP—are now known to have had smaller output gaps than projected in early 2021, an indication that the rapid recovery in demand exceeded expectations. We find evidence that countries whose economic recovery from the pandemic shock was faster than expected—such as New Zealand, Singapore, and Türkiye also experienced inflation that was higher than expected. This was more prevalent in 2021 than

in 2022, hinting at a potential role for demand overstimulation in the initial phase of the recovery from the pandemic shock.

Second, the strong demand recovery met highly strained supply chains. Supply chain bottlenecks are normally caused by either demand or supply shocks, rarely a combination of the two. During the initial COVID-19 lockdowns, a formidable combination of both forces was at play—demand for goods was increasing at a fast pace, while supply saw a temporary substantial retreat. We found that for countries in which demand played a more prominent role than supply in straining supply chains, forecast errors were larger on average. This dynamic played out in Brazil and New Zealand, and to a lesser extent in Canada and the US.

Third, the demand-supply imbalances were amplified by the shift in demand from services to goods during the early lockdown period as the leisure and hospitality sector mostly ceased functioning. This temporarily reversed a trend seen over the past couple of decades of goods inflation that was lower than services inflation. For economies where this reversal seemed sharp, with goods inflation more elevated than services inflation, forecast errors were larger as well. The shift in demand from services to goods was likely a driver of inflation misses in Brazil, Chile, and the US, where core goods inflation in 2021 was more than twice that of services.

Fourth, unprecedented labor market tightness, which persists to this day in some advanced economies, confounded some of the previous factors. Measured by the ratio of vacancies to unemployment, labor markets have been particularly tight in Australia, Canada, the UK, and the US,



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significantly correlating with the magnitude of these countries' core inflation forecast errors.

Fiscal stimulus

The combination of stronger-than-anticipated demand recovery, ramped-up demand clogging supply chains, sectoral shifts in demand, and a heated labor market offers a convincing postmortem explanation for repeatedly missing the inflation bout. We are certainly wiser with the benefit of hindsight. Yet policymakers must make decisions in real time with a subset of the information we have today. This raises a simple yet important question: At the time they issued the forecast, should forecasters have seen this inflationary force coming through the windshield?

As a driver increases speed, the visual corridor may narrow, masking dangers down the road. One peculiar feature of the policy response to the pandemic in 2020 was the aggressive fiscal stimulus, which according to some observers resembled wartime spending. Importantly, this stimulus was part of the forecasters' information set at the time. Our analysis shows that the size of the COVID-19 fiscal stimulus packages announced by different governments in 2020 correlates positively with core inflation forecast errors in advanced economies in 2021. While this suggests that forecasters may have insufficiently calibrated their projections in anticipation of the potential effects of the large fiscal intervention, the evidence must be interpreted with caution. First, the positive correlation is driven primarily by Australia, Canada, the UK, and the US—the same economies with particularly tight labor markets since the onset of the pandemic. Second, a deeper look into the data favors

the interpretation that forecast errors are more attributable to misjudging the severity of supply constraints, including in labor markets, than to underestimating the impact of fiscal policy on the rebound in economic activity.

Policy trade-offs

In 2020, too small a dose of fiscal stimulus would have risked prolonged scarring. But doing too much also risked overstimulating the economy and sparking inflation. With inflation too low in advanced economies, perhaps the latter risk was overshadowed as policymakers in the largest of those economies threw their weight behind sizable fiscal interventions.

Forecasters also faced considerable uncertainty. They had to grapple with changed dynamics in goods and labor markets as well as economic data difficult to parse in real time. This complicated the economic outlook in no small measure. The evidence suggests that the large fiscal stimulus should have tilted the balance of risks on inflation to the upside. However, this conclusion hinges on the outcomes for a few, albeit large, economies.

Going forward, the inflation outlook should better integrate the impact of fiscal policy, particularly in an environment where supply constraints amplify the impact of excess demand on inflation. Policymakers could have been advised to reduce their speed somewhat back in 2020 given the danger that was lurking down the road. But this remains a partial assessment. Only by comparing it with the counterfactual scenario of deep scarring can we really gauge the adequacy of the policy choices made back then. [D]

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