

How We Missed the Inflation Surge: An Anatomy of Post-2020 Inflation Forecast Errors

Christoffer Koch and Daa Noureldin

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ABSTRACT:

This paper analyzes the inflation forecast errors over the period 2021Q1-2022Q3 using forecasts of core and headline inflation from the International Monetary Fund *World Economic Outlook* for a large group of advanced and emerging market economies. The findings reveal evidence of forecast bias that worsened initially then subsided towards the end of the sample. There is also evidence of forecast oversmoothing indicating rigidity in forecast revision in the face of incoming information. Focusing on core inflation forecast errors in 2021, four factors provide a potential *ex post* explanation: a stronger-than-anticipated demand recovery; demand-induced pressures on supply chains; the demand shift from services to goods at the onset of the pandemic; and labor market tightness. *Ex ante*, we find 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. This result hints at potential forecast inefficiency, but we caution that it hinges on the outcomes of a few, albeit large, economies.

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WORKING PAPERS

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1. Introduction

As the COVID-19 pandemic hit the global economy in early 2020, and with interest rates mostly at the effective nominal lower bound in the world's advanced economies, it was up to fiscal policy to prevent deep economic scarring. Indeed, large fiscal interventions were undertaken which provided support to households and businesses as economic activity almost came to a halt. With the rapid development and deployment of COVID-19 vaccines, economic activity rebounded strongly as lockdown measures were gradually lifted. An intense wave of global inflation followed.

Forecasting the course of inflation post the pandemic's initial shock proved a difficult task as considerable uncertainty obscured the economic outlook. Forecasters grappled with changed dynamics in goods and labor markets and faced prints of economic data that were difficult to parse in real time. Realized inflation repeatedly exceeded the forecasts issued by central banks, international institutions, and the private sector. Reflecting the intensity and persistence of underlying inflation forces, inflation outcomes kept surprising on the upside despite upward forecast revisions over the course of 2021 and 2022. While we acknowledge the highly uncertain outlook back in 2020, the extent to which the rapid rise in inflation eluded most forecasters remains intriguing. In this paper, we set out to dissect the inflation forecast errors using a panel of country-level forecasts for headline and core CPI inflation issued by the International Monetary Fund (IMF) over the period 2021Q1-2022Q3. These are published on quarterly basis in the *World Economic Outlook* (WEO) report.

In particular, we ask the following questions. On statistical terms, did the forecasts show evidence of bias, and if so, how did the bias evolve over the study period? Also, was there evidence of oversmoothing, or excessive sluggishness, in updating the forecasts in the face of incoming data? We then move on to a deeper dive into the potential economic underpinnings that may explain the forecast errors. We first conduct an *ex post* analysis to assess what we can learn with the benefit of hindsight as the thick cloud of uncertainty thinned out and economists had a better understanding of post-2020 demand and supply dynamics. We then opt for an *ex ante* assessment to answer the question: could we have seen some of this coming given the information available at the time?