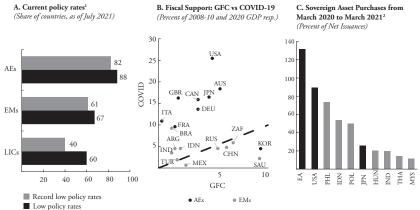
Panel on The Interaction of Fiscal and Monetary Policy

Gita Gopinath

I would like to start with some context by looking at the 10 years before COVID struck—a period of considerable innovation in monetary policy, with major economies at the zero lower bound (ZLB) following the global financial crisis (GFC). Quantitative easing was done at a much bigger scale, asset purchases went beyond buying government bonds to include private securities, and central banks used forward guidance and their balance sheets to prevent self-fulfilling crises. These innovations helped to varying degrees. However, what was needed, and what was missing then, was fiscal policy. I recall several conferences over the past decade where all we talked about was how monetary policy could not be the only game in town and that fiscal policy needed to step up.

Then, COVID struck, and fiscal policy came to town in a big way. Chart 1 shows unprecedented joint monetary and fiscal support followed in response to the pandemic, particularly in advanced economies. Policy rates were at historic lows in many economies (panel A). Around 80% of advanced economies and 60% of emerging markets had record-low policy rates. At the same time, fiscal support in the form of above-the-line revenue and spending measures surged. This past year's fiscal support has been several multiples of the support provided during the GFC. Panel C shows the striking monetary-fiscal





1"Low" policy rates means in the bottom 10th percentile of the country's distribution of policy rates, since 2004.
2 Includes purchases through primary and secondary market. EMs use 2020 data.
3 Sources: BIS; Bloomberg, L.P.; national authorities; Haver Analytics; IMF, World Economic Outlook; and IMF staff calculations.

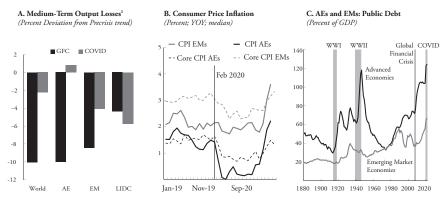
policy interaction by charting central banks' large-scale sovereign asset purchases. Central banks have been one of the main buyers of government debt. In other words, a very stark joint monetary fiscal operation had taken place.

This unprecedented policy support crucially helped limit output losses. According to IMF estimates, the contraction in 2020 would have been three times as large as compared with the -3.3% global contraction that materialized had it not been for the extraordinary policy support (see IMF April 2021 *World Economic Outlook*).

Furthermore, unlike after the GFC, when there was sizeable "scarring" four years out with GDP around 10% below what was projected pre-crisis, this time around the IMF projects almost no scarring in advanced economies (Chart 2). Emerging markets and low-income countries, on the other hand, face much larger scarring given their more limited fiscal policy space, which again is the opposite to what happened after the GFC.

Lately there has been growing concern about whether the extent of policy support has been all too much. As illustrated in Chart 2, headline inflation has been rising fast for advanced economies and emerging markets, with base effects and the rebound in commodity

Chart 2
Policies Limited Output Losses, but Heightened Risk
of Inflation and Debt Concerns



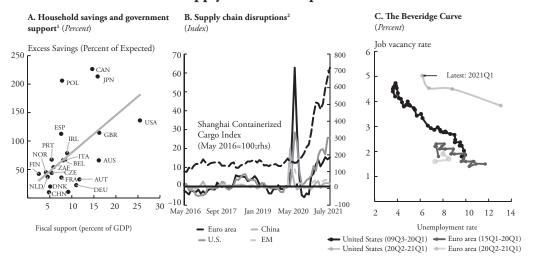
prices driving some of the surge. Core inflation has picked up to a lesser extent, and the U.S. stands out among major economies with sharply higher core CPI inflation. Public debt, which was already elevated pre-COVID, has further risen sharply in both advanced economies and emerging markets.

On top of this, the recovery has been unlike any other (Chart 3). With excess household savings, that could further release large pentup demand, supply chain disruptions persisting longer than expected, and labor market disruptions, reflected in a rightward shift of the Beveridge curve as high unemployment rates go along with high rates of vacancies posted.

This raises the question of whether the sizeable expansion of the monetary base and the surge in public debt across major economies may de-anchor inflation expectations. And if it does not, does this mean central banks can go even further and consider helicopter money or forgive the debt that they have purchased?

Historical evidence on the interaction between fiscal and monetary policy provides some useful evidence. A paper by IMF researchers (Agur et al., forthcoming) studies the relationship between money growth and inflation based on a sample of about 195 countries going back to 1950. Chart 4 illustrates the consequences of a 10% increase in the monetary base on inflation. The graphs illustrate that when

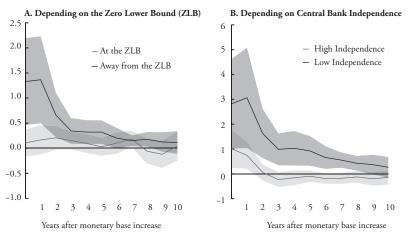
Chart 3 Recovery Amid Pent-Up Demand and Supply Chain Disruptions



¹Fiscal support includes above-the-line fiscal measures between January 2020 and March 17, 2021. Cumulative excess savings are household savings between 2020:Q1 and 2021:Q1 in excess of that expected from a linear trend.

²Supply Chain Disruptions are calculated as the difference between the supply delivery times sub-index in the PMI and a counterfactual, cyclical measure of supply delivery times based on the manufacturing output sub-index in the PMI. Sources: IMF; OECD; Eurostat; Bloomberg, L.P.; Haver Analytics; IHS Markit; BLS; and IMF staff calculations.

Chart 4 Inflation Response to a 10% Increase in Monetary Base (%)



Source: Agur, Itai, Damien Capelle, Giovanni Dell'Ariccia and Damiano Sandri. Forthcoming. "Monetary Finance: Do not Touch or Handle with Care?" Departmental Paper, Research Department, International Monetary Fund, Washington, D.C.

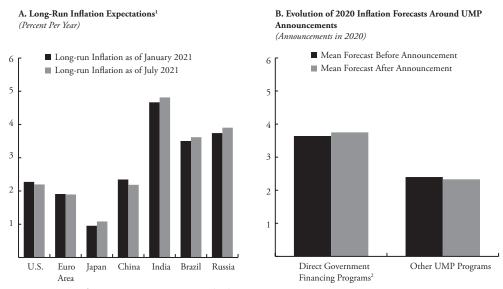
countries are at the ZLB, it is hard to find an effect of increasing money growth on inflation, while in countries away from the ZLB, a large increase in the monetary base has a significant impact on inflation (panel A). Importantly though, the transmission is smaller in countries with higher levels of central bank independence (panel B). In other words, if central banks are able to anchor inflation expectations, you generally do not see a large increase in inflation in response to an expanded monetary base.

Furthermore, in this COVID crisis there is little evidence that unconventional monetary policy announcements have had an effect on inflation expectations as is visible in Chart 5. This is the case even when the announcements explicitly state that the purchases are for supporting government finances.

This, however, does not mean that central banks should double down. This conclusion would be a mistake. The evidence instead is that countries that built up the credibility of their monetary and fiscal policy frameworks in normal times were the ones that could undertake unconventional policies without significant consequences for inflation expectations. The countries that did not were far more limited in what they could do. It is, therefore, essential for central banks and governments to build up policy credibility in normal times, to leverage it in exceptional circumstances to support the economy.

Policymakers must also consider the uncharted nature of the recovery from the depths of the COVID crisis, with persistent supply-demand mismatches, that could easily generate negative surprises even in countries with policy credibility. The unprecedented joint monetary-fiscal support has also fueled asset market valuations and compressed risky asset spreads to historical lows. With financial markets primed for perfection and an uncomfortable degree of financial market complacency, even small negative surprises could trigger a large tightening of financial conditions.

Chart 5
Unconventional Monetary Policy Impact on LR Inflation
Expectations During COVID



 $^{^{\}mbox{\tiny I}}\mbox{Long-run}$ inflation expectations are 6-10 years ahead.

Sources: Bloomberg, L.P.; IMF, World Economic Outlook; Consensus Economics; Agur et al. (2021), forthcoming; and IMF staff calculations.

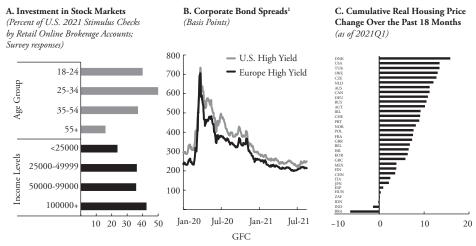
Chart 6, according to a Deutsche Bank survey, shows about 31% of the second U.S. stimulus checks went into the stock market, bond spreads are very low, and real housing prices have risen sharply in several countries, posing risks to inflation, affordability and financial stability.

Chart 7 demonstrates the consequences of a joint event, where further waves of infections impact emerging markets at the same time as advanced economies move to faster than expected normalization of monetary policy pushing up risk premia. This generates a \$4.5 trillion cumulative hit to the global economy with the brunt of it being borne by emerging markets (see IMF July 2021 *World Economic Outlook*). This will further exacerbate the dangerous divergence in prospects between advanced economies and many emerging market and developing economies.

To conclude, the COVID-19 crisis demonstrates the benefits of joint monetary and fiscal support for macroeconomic and financial

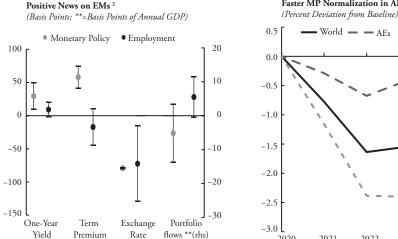
²Mean increase is not statistically significant.

Chart 6 Financial Market Complacency with Little Room for Surprises



¹Spreads between high yield and investment grade corporate bond index. Sources: ECB; Haver; Deutsche Bank survey (left chart); Bloomberg Finance L.P.; IMF; Organization for Economic Co-operation and Development; Eurostat; U.S. Bureau of Economic Analysis; and IMF staff calculations.

Chart 7 Adverse Monetary Policy Spillovers Could Exacerbate **Diverging Recoveries**



A. Impact of U.S. Monetary Surprises and

World - - AEs - - EMs 2020 2021 2022 2023 2025 2024

B. Downside Risk Scenario: New Infection Wave in EMs+

Faster MP Normalization in AEs

Sources: IMF, World Economic Outlook; and IMF staff calculations.

stability. This lesson must not be forgotten. At the same time, there should be a recognition of the limits of certain policies. While quantitative easing was effective in reducing government bond yields during the initial period of scarce liquidity, it is unclear what the effects have been on output and inflation in subsequent months. While fiscal support was very helpful, they could have been better targeted in some cases.

Second, central bank independence has served countries well. Central bank actions should be guided by monetary policy objectives. Independence cannot, however, be taken for granted, especially when central banks have large amounts of assets on their balance sheets that could expose them to interest rate risk and income risk. Therefore, it is important to unwind policies in normal times to create space to deal with future crises.

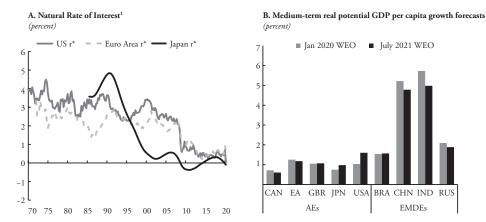
Third, the taboo against direct government financing by central banks has served countries well. This does not mean putting central banks in straightjackets. It means that central banks should build a reputation for delivering on their mandates, which in turn affords them the ability to experiment in exceptional circumstances.

Fourth, in the policy world what you say is as important as what you do. In these unusual times, clear communication is needed to anchor inflation expectations. People's beliefs about the preferences of policymakers matter for inflation expectations. Central banks should chart contingent actions, announce clear triggers, and act in line with that communication.

Fifth, given that we are likely to remain in a low interest rate environment for long (Chart 8), it is even more urgent to have comprehensive macroprudential regulations that cover nonbank financial corporations to better insulate the world from financial crises.

Lastly, the challenge remains to raise the natural rate of interest. This will require going beyond standard cyclical fiscal and monetary policy tools and will require implementing structural reforms and fiscal policies that raise potential growth and reduce inequality.

Chart 8
Structural Drivers and Low Real Rates



¹Estimates for the U.S. and Euro area are based on Holston, Laubach and Williams (2017). Estimates for Japan is derived using multivariate linear filter based on Vitek (2018)

Sources: Holston, Laubach and Williams (2017); IMF, World Economic Outlook; and IMF staff estimates.