Unprecedented joint monetary-fiscal support in response to the pandemic...

Current policy rates 1/ (share of countries, as of July 2021)

- Record low policy rates
- Low policy rates

AEs
- 82
EMs
- 61
LICs
- 40

Fiscal support: GFC vs COVID-19 (percent of 2008-10 and 2020 GDP resp.)

- AEs
- EMs

Sovereign asset purchases from Mar 2020 to March 2021 2/
(percent of net issuances)

Sources: BIS; Bloomberg, L.P.; national authorities; Haver Analytics; IMF, World Economic Outlook; and IMF staff calculations.

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.
...has crucially helped limit output losses, but triggered inflation and debt concerns

### Medium-term output losses 1/
(percent deviation from precrisis trend)

- **GFC**
- **Covid**

### Consumer price inflation
(percent; yoy; median)

- CPI EMs
- CPI AEs
- Core CPI AEs
- Core CPI EMs

### AEs and EMs: public debt
(percent of GDP)

Sources: Historical Public Debt Database, Maddison Database Project; IMF, World Economic Outlook; IMF Global Data Source; IMF STA CPI Database; and IMF staff calculations.

1/ Bars show the difference in real output four years after the crisis and anticipated output for the same period prior to the crisis for the indicated regional group.
...amidst pent-up demand and supply chain disruptions

Household savings and government support 1/ (percent)

Supply chain disruptions 2/ (index)

The Beveridge Curve (percent)

Sources: IMF; OECD; Eurostat; Bloomberg, L.P.; Haver Analytics; IHS Markit; BLS; and IMF staff calculations.

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

2/ Supply 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.
In the ZLB period money growth has had little impact on inflation. Central bank independence plays a crucial role.

Central Bank assets
(percent of GDP)

Inflation response to a 10 percent increase in the monetary base
(1/)

Depending on the zero lower bound (ZLB)

Depending on central bank independence

Sources: ECB; Bank of Japan; Federal Reserve; Bank of England; Swiss National Bank; Haver Analytics; and Agur et al. (forthcoming).

1/ Data are for 157 countries from 1950-2020.
No evidence of Unconventional Monetary Policy impact on LR inflation expectations during Covid

Long-run inflation expectations 1/
(percent per year)

- Long-run inflation as of Jan 2021
- Long-run inflation as of July 2021

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

1/ Long-run inflation expectations are 6-10 years ahead.

Evolution of 2020 inflation forecasts around UMP announcements
(announcements in 2020)

- Mean forecast before announcement
- Mean forecast after announcement

1/ Mean increase is not statistically significant.
But uncharted recoveries could trigger surprises and financial market complacency leaves little room for surprises.

**Investment in stock markets**
(percent of U.S. 2021 stimulus checks by retail online brokerage accounts; survey responses)

<table>
<thead>
<tr>
<th>Income levels</th>
<th>18-24</th>
<th>25-34</th>
<th>35-54</th>
<th>55+</th>
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<td>100000+</td>
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**Corporate bond spreads 1/**
(basis points)

**Cumulative real housing price change over the past 18 months**
(as of 2021q1)

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.

1/ Spreads between high yield and investment grade corporate bond index.
Adverse monetary policy spillovers could exacerbate diverging recoveries

Impact of US monetary surprises and positive news on EMs 2/
(basis points; **=basis points of annual GDP)

Downside risk scenario: New infection wave in EMs + faster MP normalization in AEs
(percent deviation from baseline)

Sources: IMF, World Economic Outlook; and IMF staff calculations.
Challenges remain as structural drivers expected to keep real rates low

**Natural rate of interest 1/**

* (percent)

- US r*
- Euro Area r*
- Japan r*

**Medium-term real potential GDP per capita growth forecasts**

* (percent)

- Jan 2020 WEO
- July 2021 WEO

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

Monetary and fiscal support are both essential for macroeconomic stabilization and financial stability.

- Fiscal policy particularly beneficial if at the effective lower bound for policy rates.
- Monetary policy can help smooth market functioning and prevent self-fulfilling crises.
- QE was effective in reducing government bond yields during initial period of scarce liquidity. Unclear effects on term premium, output and inflation in subsequent months.

Central bank independence has served countries well.

- Central bank actions (policy rates, APP) should be guided by monetary policy objectives.
- Asset purchases (and sales) must be clearly communicated as serving central banks’ price and financial stability objectives to allay concerns about fiscal dominance. APPs must be done at market prices (favoring secondary market transactions).
- Central bank independence may be vulnerable when central bank balance sheets are heavily exposed to interest rate risk, credit risk, exchange rate risk.

The taboo against direct government financing by central banks has served countries well.

- Limited experimentation in exceptional circumstances has not had adverse effects.
Policy Conclusions

• **Sound and clear communication needed to anchor inflation expectations and avoid tantrums**
  • Inflation anchoring depends on beliefs about the characteristics and preferences of policy makers
  • Policymakers need to chart contingent actions, announce clear triggers, and act in line with the communication.

• **Fiscal policy must be sustainable with credible medium-term fiscal frameworks**
  • Emerging market economies with lower fiscal vulnerability are more insulated from external financial shocks than others
  • Countries with the most constrained fiscal position had a smaller likelihood of an APP

• **Comprehensive macroprudential regulations needed**, including across banks and nonbanks (NBFI), and across borders, and with new technologies to contain future damage from excessive risk taking and regulatory arbitrage

• **Structural reforms and fiscal policies needed to raise growth potential and r**
  • Infrastructure, climate, digital, health, education, investment