

Macroprudential Strategies for Inflationary Episodes and Monetary Policy Normalization

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MPP: Ensure the financial sector is sound and solid



Enhanced prudential frameworks and buffers since the GFC

Tier-1 Capital Ratio

(Percent of risk-weighted assets)



Sources: IFS; IMF World Economic Outlook; IMF staff calculations. Note: Aggregates are PPP GDP-weighted averages. Emerging markets include data for Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Romania, South Africa, and Thailand.

Total Net Macroprudential Tightening Actions

(Sum of total net macroprudential tightening actions)



Source: IMF, integrated Macroprudential Policy (iMaPP) Database (Alam and others (2024); and IMF staff calculations.

Note: The figure reports the sum of total net tightening actions (+1 if tightened, -1 if loosened).

Recent widespread tightening of monetary policy to tame inflation provides test of enhanced frameworks

Nominal Policy Rates in Advanced and Emerging Markets



(Percent, country group median)

Sources: European Central Bank; National central banks; Haver Analytics; and IMF staff calculations.

Note: AEs= advanced economies; EMDEs= emerging markets and developing economies. Median calculations for EMDEs include data for Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Romania, South Africa, and Thailand. **Sequential Core Inflation** (Percent, 3m/3m annualized)



Sources: Haver Analytics; and IMF staff calculations.

Note: AEs= advanced economies; EMDEs= emerging markets and developing economies. Median calculations for EMDEs include data for Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Romania, South Africa, and Thailand.

So far central banks avoided a "financial dominance trap"

Financial Conditions Index (Deviations from mean)



Sources: Bloomberg Finance L.P; Haver Analytics; National Sources, and IMF staff calculations.

EMDEs: Cumulative Bond Flows

(Percent of initial allocation)



Sources: Emerging Portfolio Fund Research (EPFR) database; Haver Analytics; and IMF staff calculations.

Note: Global Financial Crisis (9/10/2008); Taper Tantrum (5/22/2013); Fed Hike (1/5/2022). EMDEs includes Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Romania, South Africa, and Thailand.

Two Key Questions

- Does the existing empirical evidence confirm the benefits of MPP in building resilience and taming the cycle?
- Cyclical angle: what is the appropriate strategy for MPP at the current juncture?

Effectiveness of Macroprudential Policies – Empirical Evidence

Substantial evidence that tools are effective in taming the cycle and promoting resilience...



Impact of Macroprudential Policies on Credit Growth (Standard deviation change in credit)

Source: Araujo and others (2020).

Note: The figure reports average effects of tightening macroprudential measures on credit obtained through weighted least square regressions where the weights are proportional to the precision of the results.

Reduction in Loss Function from Use of MPP



Source: Brandao-Marques and others (2020).

Note: The figure shows the cumulated change in the loss function when comparing a scenario of loose financial conditions without policy tightening to one where policy is tightened. BB-MPP = borrower-based macroprudential policy; FI-MPP = financial-institutions-based macroprudential policy. The horizontal axis shows the number of quarters since the time of the loosening shock of financial conditions and macroprudential tightening.

...while shielding EMs from the global cycle, albeit with decreasing marginal returns





GDP response to 2 pp net outflows (percent)

Source: Bergant and others (2023)

Note: The x-axis denotes the level of macroprudential regulation. The figures show the GDP response to global financial shocks for different levels of macroprudential regulation. Net capital outflows are scaled by the HP-trend of GDP. The shaded areas correspond to 90% confidence intervals computed with Driscoll–Kraay standard errors.

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A well-rounded set of measures maximizes benefits...



Source: Bergant and others (2023)

Note: The bars show the point estimates of the coefficients on the interaction terms between the shocks and the level of macroprudential regulation. The level of macroprudential regulation is divided by 10 to ease the visualization of the coefficients. X-axis denotes five categories of macroprudential measures. The vertical lines correspond to 90% confidence intervals computed with Driscoll–Kraay standard errors.

...and supports a countercyclical monetary policy response

- At more stringent macroprudential regulation, domestic interest rates in EMs no longer co-move with US rates
- Similar result is obtained when looking at increases in VIX
- But: MPP regulation does not have tangible effects on the monetary policy response to capital outflow shocks.

Policy rate response to a 1 pp US rate hike (Percentage points)



Source: Bergant and others (2023)

Note: The x-axis denotes the level of macroprudential regulation. The figure shows the policy rate response to a US rate increase for different levels of macroprudential regulation. The shaded areas correspond to 90% confidence intervals computed with Driscoll–Kraay standard errors.

Beware of leakage effects

- MPPs for banks induce shifts to nonbanks and foreign borrowing, e.g., Cizel and others (2019)
- Need careful calibration also given decreasing marginal benefits of MPPs
- Benefits of expanding perimeter of macroprudential action

The Size of U.S. Non-Banks: Institutional and Functional Measures (\$US bn)



Source: Hodge and Weber (2023)

What to do now?

Considerations around the MPP stance

No clear picture on where we are in various cycles

U.S. Federal Funds Rate and Balance Sheet

(Percent; US\$ billion)



Sources: Bloomberg Finance L.P.; Federal Reserve Board;

Note: Policy rate shows projections based on market implied

Reserve Banks show monthly available data for January and

path of interest. Dotted lines for total assets of all Federal

Global Credit Cycle Indicator (Standard deviations)



Source: Standard & Poor's Financial Services LLC.

Sources: Haver Analytics; and IMF staff calculations. Note: AEs=advanced economies; EMDEs= emerging markets and developing economies include Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Mexico, Poland, Romania, and South Africa.

Nominal Housing Prices

(Index, seasonally adjusted, 2017=100)



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Haver Analytics.

February 2024.

Bank profitability will likely decline, while lagged effects of tightening on credit quality may yet bite

Return on Assets

(Percent)



European Central Bank; Haver Analytics; and IMF staff calculations. Note: AEs=advanced economies; EMDEs= emerging markets and developing economies include Brazil, Bulgaria, China, Hungary, India, Indonesia, Malaysia, Poland, Romania, South Africa, and Thailand. One-Year Ahead Expected Default Frequency of REITs and CMBS Default Rates (Percent)



Sources: Bloomberg; and IMF staff calculations.

Key lesson from Covid is that releasable buffers work but were not available when needed

- Positive neutral CCyB can provide additional headroom in periods of stress
- COVID showed effectiveness in practice (Bergant and Forbes, 2021).
- But not many countries had releasable buffers
- "Usable" buffers were not used (stigma; market perception in downturns: capital matters)

Capital Buffer Accumulation

(Percent of risk-weighted assets)



Source: IMF integrated Macroprudential Policy (iMaPP) Database (Alam and others, 2024); and IMF staff calculations.

Note: The figure reports the average buffers. AEs= advanced economies; EMDEs= emerging markets and developing economies include Brazil, Bulgaria, China, Hungary, India, Indonesia, Mexico, Poland, Romania, and South Africa.

Still the right time to build-up releasable buffers

- Build-up pre-emptively irrespective of credit cycle
- Buildup starts when the supply of credit is not constrained by capital requirements
- Early warning indicators (EWIs) and stress tests can signal need for increases beyond the neutral level
- Indicators for financial stress signal the release

CCyB: A Framework with a Positive Neutral Level



Sources: Miettinen and Nier (2024, forthcoming).

Pace of building up the CCyB should reflect benefits and adjustment costs

- Assess stock of existing vulnerabilities
- Assess strength of mitigants (e.g., existing BBMs)
- Assess whether lending is constrained by capital
 - Banks' profitability
 - Level of voluntary buffers
 - Lending surveys
- A more targeted buffer such as for housing could be considered
- Case for baseline capital buffers to be larger in EMs than AEs

European Union: Household Debt and Variable Rate Mortgages Issuances (Percent)



Source: European Central Bank; Eurostat; Haver Analytics; and IMF staff calculations. Note: Share of variable rate mortgages is the share of mortgages for home purchases. Shows the average share of variable rate from January 2005 to January 2024. Household debt-to-income ratio shows data in 2022, it is not available for Bulgaria, Greece, Malta, and Romania, so these countries are not shown.

Conclusion

Evidence that macroprudential polices can help avoid a "financial dominance" trap

Focus of MPP at this stage should be on preserving resilience

- A positive neutral CCyb can be an important tool considering country specifics
- Limiting financial stability risks shouldn't rest entirely on macroprudential leg
 - Coordination with other policies microprudential, resolution, rebuild fiscal space

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