Anchoring inflation expectations in emerging and developing economies

Jongrim Ha, M. Ayhan Kose, Hideaki Matsuoka, Ugo Panizza, Dana Vorisek 08 February 2022

In 2021, inflation in emerging market and developing economies reached its highest level since 2011, prompting many to increase their policy rates. This column argues that these economies need to employ credible, carefully calibrated, and well communicated monetary policies to contain inflationary pressures. Such policies tend to be more successful in anchoring inflation expectations in the presence of an inflation-targeting regime, high central bank transparency, and lower levels of debt.

Last year, global inflation rose to its highest level since 2008 (Figure 1, Panel A). In emerging market and developing economies (EMDEs), inflation reached its highest level since 2011 and exceeds central banks' target in more than half of countries where an inflation-targeting framework is in use (Figure 1, Panel B). Rising inflationary pressures have pushed up near-term inflation expectations in many EMDEs; in some economies, long-term inflation expectations have also crept up (Figure 1, Panel C). To pre-empt the possibility of longer-lasting inflationary pressures, central banks in around 40% of EMDEs have already increased policy interest rates over the past year (Figure 1, Panel D).

Figure 1 Inflation and monetary policy

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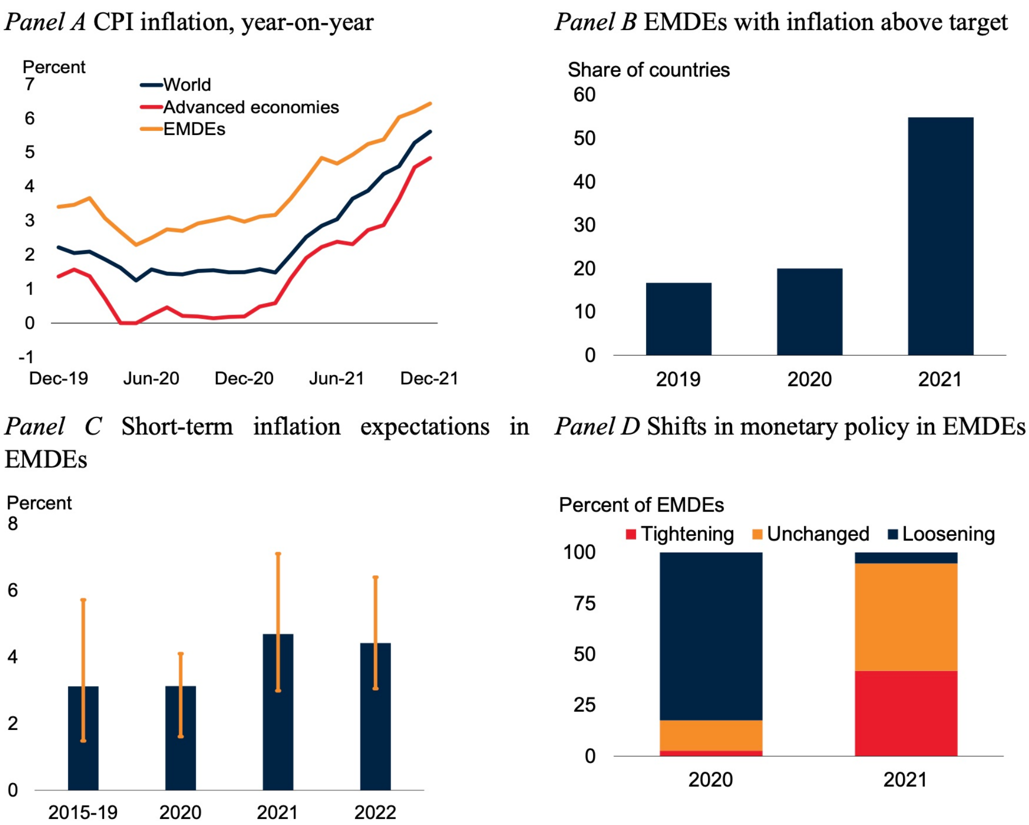


Sources: Consensus Economics; Haver Analytics; IMF Annual Report on Exchange Arrangements and Exchange Restrictions; World Bank.

Note: EMDEs = emerging market and developing economies. Panel A: CPI refers to consumer price index. Lines show group median inflation for 81 countries, of which 31 are advanced economies and 50 are EMDEs. Last observation is December 2021. Panel B: Bars show the share of inflation-targeting EMDEs (in percent) with average inflation during the course of the year above the target range. Panel C: Bar for 2022 shows the median one-year-ahead headline CPI inflation expectations for 48 EMDEs derived from the January 2022 Consensus Economics survey. Bars for 2015-21 indicate actual median inflation rates. Vertical orange lines indicate interquartile ranges. Panel D: Bars show share of countries where the policy interest rate was raised (tightening monetary policy), lowered (loosening monetary policy), and unchanged in 2020-21. Sample includes 74 EMDEs.

The extensive debate on the persistence of recent inflationary pressures has emphasised the importance of anchoring inflation expectations (Ball et al. 2021, Blanchard 2021, Brignone et al. 2021, Goodhart and Pradhan 2021, Krugman 2021, Ha et al. 2021). This column examines the implications of elevated inflation for long-term inflation expectations in EMDEs by addressing three questions:

- How have inflation expectations evolved over time?
- How sensitive are long-term inflation expectations to changes in current inflation?
- What types of policies help anchor inflation expectations?

Evolution of inflation expectations

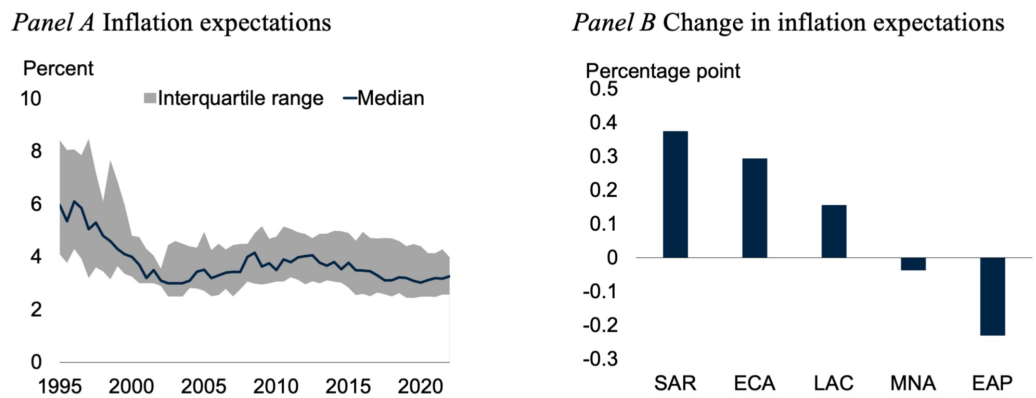
Inflation expectations are a window into the future direction of inflation and a gauge of monetary policy credibility. The more credible households and firms consider central bank policy to be, the more likely inflation expectations are to be well-anchored (Ha et al. 2019).

In both advanced economies and EMDEs, long-term (five-year-ahead) inflation expectations fell during the past three decades. After a rapid decline during the 1990s, inflation expectations in advanced economies have remained stable at around 2% per year since the mid-2000s, with very little cross-country variation. Even during 2021, when inflation rose sharply, long-term inflation expectations remained steady in advanced economies.

In contrast, inflation expectations in EMDEs decreased markedly in the second half of the 1990s, and then remained broadly stable but with wide variation (Kose et al. 2019, Figure 2 Panel A). Throughout the entire sample period, inflation expectations in these economies displayed wider cross-country dispersion than in advanced economies.

Since the beginning of the pandemic there have been marked increases in inflation and inflation expectations in Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), and South Asia (SAR) (Figure 2 Panel B). Over the same period, inflation expectations did not move or even decreased in East Asia and Pacific (EAP) and Middle East and North Africa (MENA). The uptick in inflation expectations in the ECA, LAC, and SAR regions has been associated with the effects of higher food and energy prices, currency depreciation, and political instability in some countries, as well as the recovery in domestic demand.

Figure 2 Long-term inflation expectations in EMDEs



Sources: Consensus Economics; World Bank.
Note: EMDEs = emerging market and developing economies. Inflation expectations are five-year-ahead expectations of annual inflation. Panel A: Based on a sample of 20 large EMDEs for 1995H1-2022H1. 2022H1 is based on the survey of January 2022. Panel B: Bars show changes in the inflation expectations since the beginning of the COVID-19 pandemic, by five EMDE regions. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia.

Inflation expectations: Better anchored now in EMDEs?

If inflation expectations are well anchored, they should be relatively insensitive to news because household and firms assume that transitory shocks do not affect inflation over the long run. Following Gürkaynak et al. (2010) and Beechey et al. (2011), we assess anchoring by measuring the sensitivity of long-term (five-year ahead) inflation expectations to inflation shocks – defined as the difference between realised inflation and inflation expectations in the previous period (that is, six months prior).

We find that the sensitivity of inflation expectations to shocks in EMDEs is higher than in advanced economies (Figure 3, Panel A) but that in both country groups, inflation expectations have indeed become better anchored over time. In the median advanced economy, sensitivity has declined to zero over time. However, in EMDEs, it remained statistically significant, implying that inflation expectations are still sensitive to inflationary shocks. For every one percentage point positive inflation surprise, inflation expectations were revised up by about 0.2 percentage point six months later.

Figure 3 Sensitivity of inflation expectations

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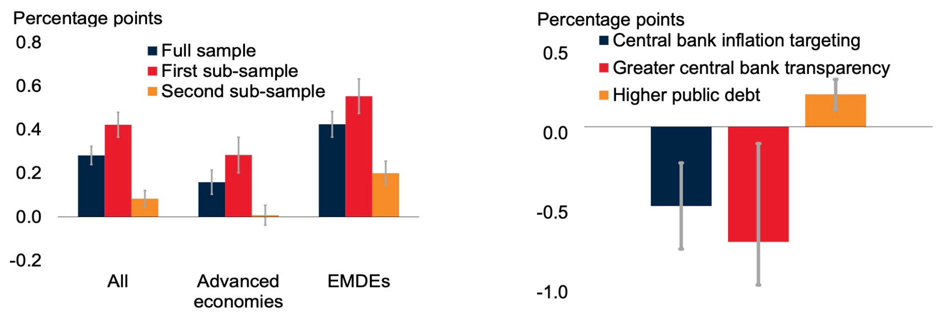
Panel A Sensitivity of inflation expectations to inflation shocks

Panel B Impact of shocks on sensitivity of inflation expectations in EMDEs



Sources: Dincer and Eichengreen 2014; International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies. Inflation expectations are five-year-ahead expectations of annual inflation. Inflation shocks are defined as the difference between realised inflation and short-term inflation expectations in the previous period (i.e., six months prior). Sensitivity is estimated using a panel regression of the change in five-year-ahead inflation expectations on inflation shocks. Bars denote medians and vertical lines denote 90% confidence intervals of the regression coefficients. Panel A: Based on a sample of 24 advanced economies and 23 EMDEs. Full sample refers to 1990-2018, divided into the first (1990-2004) and second (2005-2018) sub-samples; Panel B: Based on panel regressions of 23 EMDEs using annual data for 1995-2016.

The improved anchoring of long-term inflation expectations observed in EMDEs prior to the pandemic may be associated with a range of factors, including the monetary policy framework and fiscal sustainability. We assessed the role of these factors in determining the sensitivity of long-term inflation expectations to changes in inflation (Figure 3, Panel B).

- **Inflation targeting regime and central bank transparency.** Since the first inflation-targeting regime was adopted in 1990 by the Bank of New Zealand, a growing number of central banks – including at least 32 EMDE central banks, currently – use inflation targets. Simultaneously, central bank transparency in EMDEs, measured by an index developed by Dincer and Eichengreen (2014), has improved. Given that EMDE central banks still need to bolster credibility, explicit inflation targets and transparency rules can help anchor inflation expectations. Both factors are associated with an improvement in the anchoring of inflation expectations (i.e. a fall in the sensitivity to inflation shocks) in our empirical exercise.
- **Fiscal policy.** Inflation expectations are unlikely to be well-anchored if there are concerns about fiscal sustainability because of fears that monetary policy is constrained, especially in cases where high interest rates imply unstable public debt dynamics. Our results are consistent with this prediction, showing a positive and statistically significant correlation between the ratio of public debt to GDP and the sensitivity of long-term inflation expectations to inflation shocks, or inflation volatility in general.

Conclusion

EMDEs will face the first meaningful monetary policy tightening cycle by advanced economies after a long period. Unfortunately, this tightening cycle will take place along with not only substantial price pressures, but also weaker growth prospects and limited policy space (World Bank 2022). Concerns about weakly anchored inflation expectations have already compelled some EMDE central banks to tighten monetary policy earlier or more strongly than warranted by their cyclical positions. EMDEs need to employ credible, carefully calibrated, and well communicated monetary policies to contain inflationary pressures (Andre et al. 2021, D'Acunto and Weber 2022).

Although inflation expectations have become better anchored during the past decade, there is still room for improvement in many EMDEs. Inflation targeting seems to have been useful in reducing the sensitivity of inflation expectations to shocks, but it is not necessarily a sufficient policy measure for anchoring expectations. The overall macroeconomic policy framework, including maintaining sustainable fiscal conditions and central bank transparency, is also important to better anchor inflation expectations.

Authors' note: The findings, interpretations, and conclusions expressed in this column are entirely *those of the authors. They do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.*

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34 A A

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