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From Low to High Inflation: Implications for Emerging Market and Developing Economies

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Abstract

Recent energy and food price surges, in the wake of Russia's invasion of Ukraine, have exacerbated inflation pressures that are unusually high by the standards of the past two decades. High and rising inflation has prompted many emerging market and developing economy (EMDE) central banks and some advanced-economy central banks to increase interest rates. Inflation is expected to ease back towards targets over the medium-term as recent shocks unwind, but the 1970s experience is a reminder of the material risks to this outlook. As inflation remains elevated, the risk is growing that, to bring inflation back to target, advanced economies need to undertake a much more forceful monetary policy response than currently anticipated. If this risk materializes, it would imply additional increases in borrowing costs for EMDEs, which are already struggling to cope with elevated inflation at home before the recovery from the pandemic is complete. EMDEs need to focus on calibrating their policies with macroeconomic stability in mind, communicating their plans clearly, and preserving and building their credibility.

Keywords

Global Inflation, Commodity Price, War in Ukraine, Global Recession, Great Inflation, Monetary Policy Tightening

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I. Introduction

Global inflation has risen over the past year from less than two percent to over six percent, the highest level since 2008 (Figure 1a). The pickup has been broad-based, across nine-tenths of countries. Inflation is now running well above central bank inflation targets in almost all advanced economies and most inflation-targeting emerging market and developing economies (EMDEs) (Figure 1b).

The recent commodity price surge triggered by Russia's invasion of Ukraine will raise inflation further in 2022. This persistence of above-target inflation creates a historic monetary policy challenge. Price stability, generally defined as a low and stable rate of inflation, is a key aspect of the credibility of monetary policy, and of macroeconomic stability. Low and stable inflation, sustained over time, has generally been associated with robust and stable output growth and employment. In contrast, both very low and very high inflation have been associated with severe macroeconomic problems (Mishkin 2000, 2008; Schmidt 2021; Fell et al. 2021).

In advanced economies, central banks have so far reacted to the increase in inflationary pressures with a gradual response, tapering off unconventional support introduced during the pandemic, and (in some) raising policy rates. They have also communicated their intentions to raise rates further in the months ahead. On March 16, the U.S. Federal Reserve raised the fed funds rate by a widely-expected 25 basis points, and signaled a string of rate hikes by the end of 2022 (Figure 1c). Financial markets also expect rate increases by the European Central Bank to start this year.

Some researchers have expressed concerns that the broad-based and persistent high inflation rates around the world may mark a turning point after two decades of low and stable inflation (Blanchard 2022; Summers 2022; Gagnon 2022). In the near future, inflation is likely to remain elevated even if recent inflationary shocks subside somewhat as global growth cools, energy and food prices level off, and supply bottlenecks ease. Monetary policy has the tools to eventually stem the surge in inflation, and to return it to the target rate over time. However, if inflation expectations de-anchor as a result of repeated inflationary shocks, inflation may remain higher for longer. The interest rate increases required to bring inflation back to target will then be greater than those currently anticipated by financial markets. A salutary lesson in this regard came with the high and variable inflation rates of the 1970s, which were eventually brought under control in the early 1980s only at the cost of very steep increases in interest rates and a deep global recession (Goodfriend 2007).

In EMDEs, even before the onset of the war in Ukraine, about two thirds of inflation-targeting central banks increased policy interest rates over the course of 2021. Their tightening cycle is expected to continue this year, accompanied by a sustained unwinding of pandemic-related fiscal

support (World Bank 2022; Figure 1d). Rising policy rates in EMDEs will compound the increase in global financing cost that will likely accompany tightening monetary policy in advanced economies—before the recovery from the pandemic in EMDEs is complete and in the presence of multi-decade high levels of debt of all types (Kose et al. 2021d). A faster-than-expected tightening cycle could exacerbate already heightened macroeconomic vulnerabilities in EMDEs and trigger an even sharper slowdown in growth. Indeed, tightening cycles in advanced economies in the past were often associated with financial stress in EMDEs with severe and long-lasting macroeconomic consequences.[1]

EMDE policymakers are facing the likelihood of the first serious global monetary policy tightening cycle after more than a decade of highly accommodative external financial conditions. The monetary policy challenge of fighting inflation is more complex for EMDEs than advanced economies since they need to safeguard the recovery as well as financial stability while coping with changes in global financial conditions. In the current international environment of heightened uncertainties, EMDEs need to focus on calibrating their policies with macroeconomic stability in mind, communicating their policies clearly, and preserving and building their credibility.

In the next section, we review inflation developments over the past three years, put them in historic context, and analyze the drivers of inflation during this period. In Section III, we examine prospects for inflation over the near-term by analyzing how the supply shocks associated with the invasion of Ukraine have impacted near-term inflation prospects. In Section IV, we look beyond the near-term by comparing the current developments with the Great Inflation of the 1970s and by analyzing the structural forces that drive long-term inflation trends. In Section V, we detail the policy challenges EMDEs face. We conclude with a set of policy recommendations for EMDEs.

II. Inflation roller-coaster since the pandemic

Evolution of inflation. Over the past two years, global inflation has been on a roller-coaster ride. At the early stages of the pandemic, between January and April 2020, global inflation declined by around one percentage point amid a collapse in demand and plunging oil prices.[2] In May 2020, however, global inflation started to pick up with a rebound in oil prices and demand. In 2021, and early 2022, global inflation rose sharply to its highest level since 2008, even before the war in

[1] In the past, sharp policy tightening cycles in the United States were often associated with a greater incidence of financial crises in EMDEs—such as during the first half of the 1980s in Latin America and second half of the 1990s in Asia (Arteta et al. 2015; Claessens and Kose 2013).

[2] Global inflation is defined as median consumer price inflation among 81 countries, of which 50 are EMDEs.

Ukraine. Inflation in advanced economies is now at its highest level since 1991; inflation in EMDEs is at its highest level since 2008. Rising inflationary pressures and a surge in commodity prices as a result of the war in Ukraine have pushed up near-term inflation expectations in advanced economies and EMDEs (Figure 2a).

Different pattern of inflation from past global recessions. The global recession of 2020 was unique in that it was caused by deliberate policies closing down economic activities to slow the spread of the COVID-19 pandemic. It also led to a sharply different inflation pattern from the previous global recessions. During recession episodes over the past five decades prior to the pandemic, global inflation fell steeply. In the COVID-19-induced global recession of 2020, global inflation also declined–but more briefly and less steeply than in previous global recessions. The rebound in inflation from its trough has been faster and steeper following the 2020 global recession than after previous episodes (Figure 2b). While global inflation continued to fall for one to three years after previous global recessions, it began to rise in less than one year in the global recession of 2020. By April 2021, inflation had risen above pre-pandemic levels in both advanced economies and EMDEs.

Drivers of inflation. During the first half of 2020, plunges in aggregate demand, oil price declines, supply disruptions, and exchange rate movements affected inflation. In advanced economies, plunging oil prices and falling demand for services, especially travel and hospitality services, dampened inflation in 2020. In EMDEs, large depreciations, especially during the period of financial market stress in March-April 2020, were a key source of inflationary pressures and compounded the impact of domestic supply shocks as lockdowns disrupted services activity and food supply chains. The rebound in global demand and activity since mid-2020, together with soaring food and energy prices and continued supply disruptions in some manufacturing sectors, have pushed headline inflation to decade highs across many countries (Figure 2c). Core consumer price inflation—excluding food and energy—has also increased globally.

We examined the role of these factors in driving global inflation using an econometric model for inflation and output growth (both measured as common factors for a wide range of countries) as well as oil prices.[3] The model attributes four-fifths of the decline in global inflation from January-May 2020 to the collapse in global demand. Plunging oil prices contributed the remaining one-fifth, with slightly offsetting supply side pressures. The subsequent increase in global inflation from May 2020 was initially mainly driven by rebounding oil price. But since the second half of 2021, when inflation accelerated and became more broad-based, the global growth rebound,

[3] We estimated the model by employing monthly data for 30 advanced economies and 55 EMDEs for 2001-2021 (Ha et al. 2021a). Using sign and narrative restrictions, the model identifies global demand, supply, and oil price shocks in driving global inflation fluctuations.

rising oil prices, and supply shocks—including shipping bottlenecks, non-oil commodity prices and wage pressures in some countries—have all contributed to rising inflation (Figure 2d).

III. Inflation in the near-term: likely elevated

The surge in commodity prices since the invasion of Ukraine has led to a reassessment of the likely evolution of global inflation over the near-term.

Prior to the invasion. Before the war in Ukraine, despite the large upward surprises in 2021 and early 2022, global inflation was expected to peak around the middle of this year and then decline gradually through 2023, helped by fading supply disruptions, and well-anchored expectations in most economies. Inflation expectations by professional forecasters pointed to a moderate inflation increase (0.6 percentage point) in 2022 and a return towards target levels in 2023 (Figure 3a).

Easing inflation was in line with the anticipated global growth slowdown over 2022-23 (World Bank 2022; Figure 3b). Although this forecasted slowdown was steep, it represented a return to a more sustainable growth rate following the exceptionally sharp recovery in 2021. For advanced economies, the projected growth rate was sufficient to return them to pre-pandemic output projections, fully reversing pandemic-related output losses. For EMDEs, their growth was not strong enough to avoid lasting output losses from the pandemic: by 2023, output was still expected to remain 4 percent below pre-pandemic projections (World Bank 2022).

After the invasion. The main impact of the war on global inflation is likely to be through higher commodity prices and more persistent supply-chain disruptions. Russia and Ukraine are major exporters of many commodities—oil, natural gas, wheat, palladium, nickel, and seed oils. Supply shortages, withdrawals of foreign firms from Russia, and shipping disruptions will add to price increases in the commodity markets, on top of the sharp price rises since mid-2020. Even if there was no passthrough of energy and food price surges into core inflation, global inflation would rise since energy alone accounts for 9 percent of the consumption basket in a typical country. Our estimates (using country-specific econometric models) suggest that an increase in oil prices of 50 percent (approximately the increase over the course of 2021) has often been associated with statistically significantly higher inflation of around 4.4 percentage points, with a lag of about two years.[4]

[4] Ha et al. (2019d) estimate FAVAR models for 55 countries over the past five decades, where a variety of global shocks (oil price, global demand and supply) and domestic shocks (domestic demand, supply, monetary policy, and exchange rate) are identified as potential drivers of inflation. In these types of models, the positive impact of higher oil prices on inflation captures the direct effect of oil prices and the indirect effect of exchange rate responses to oil price shocks. The extent of exchange rate pass-through

If supply disruptions persist or commodity prices continue to climb—in particular due to the invasion—global inflation may stay elevated for a prolonged period or even rise further, leaving inflation above target ranges for many countries. As elevated inflation levels persist, the risk grows that expectations of higher inflation become baked into wage and price setting behavior. Although available inflation data are yet to reflect the war in Ukraine, market-based inflation expectations have already priced in some inflationary pressures due to the conflict.

IV. End of the era of low inflation?

The rapid rebound to above-target inflation readings around the world naturally raises concerns that an era of low inflation is coming to an end. The demise of previous periods of sustained low global inflation is a reminder that low inflation is by no means guaranteed. Inflation has been low and stable before: during the Bretton Woods fixed exchange rate system of the post-war period up to 1971 and during the Gold Standard of the early 1900s (Figure 4). However, these two earlier episodes were followed by sharply rising inflation. For example, directly following the low inflation period that ended in the early 1970s, the sharp increases in oil prices during that decade preceded a rapid acceleration in global inflation.

Are we now witnessing the end of the era of low inflation? Echoes of the Great Inflation of the 1970s and fading structural forces of disinflation may be reasons to believe so; expectations that recent cyclical shocks will subside, decades of building central bank credibility and anchoring expectations may be reasons to disagree.

Déjà vu all over again: Similarities to the 1970s. In light of the experience of the 1970s, the case for a protracted period of high inflation is straightforward. First, supply disruptions driven by the pandemic and the recent supply shock dealt to global energy prices by the war in Ukraine resemble the oil shocks in 1973 and 1979-80. Second, then and now, monetary policy was highly accommodative in the runup to these shocks (Figure 5a). Perhaps, after several months of above-target inflation in major advanced economies, a steeper-than-anticipated policy tightening might now be required to return inflation to target—and this might trigger a hard landing similar to that of the early 1980s (Blanchard 2022; Summers 2022; Gagnon 2022). Then, as now, high debt and weak fiscal positions made EMDEs vulnerable to tightening financial conditions.

Differences from the 1970s. There are important cyclical and structural differences between the 1970s and the current situation. First, at least thus far, the magnitude of commodity price jumps

could be much stronger in the event of large depreciations around financial crises (Ha et al. 2020). Using a panel model for 72 countries over 1970-2015, Choi et al. (2018) similarly find that a 10 (50) percentage point increase in global oil inflation was associated with a rise in domestic inflation by about 0.7 (3.5) percentage points cumulatively within two years after the shock.

has been smaller than in the 1970s. In the wake of two major oil crises, oil prices quadrupled in 1973-74 and doubled in 1979-80. Today, oil prices are, in real terms, still only around two-thirds of those in 1980 or 2008 (Figure 5b).

Second, there has been a paradigm shift in monetary policy frameworks since the 1970s. In the 1970s, instead of today's typically primary focus on inflation, central bank mandates incorporated multiple competing objectives, including for output and employment, as well as for price stability. Many adopted a monetarist approach, focused on stabilizing the growth rate of a monetary aggregate. However, it became increasingly clear that the link between monetary aggregates and real activity was unstable because of rapid financial innovation. Most central banks in advanced economies, freed in 1971 from the constraints of the Bretton Woods system of fixed exchange rates, aimed to support economic activity with monetary expansion, without realizing that potential output growth had started to slow (DeLong 1997). Policymakers inclined to attribute rising inflation to special factors, and underestimated the pervasive and lasting impact of excess aggregate demand pressures (Blinder 1982). As the overall macroeconomic situation deteriorated, the combination of inflation with weak economic growth gave rise to the term "stagflation."

This "passive" monetary policy stance resulted in a multi-decade period of rising and mostly elevated inflation. Global median inflation started the 1960s at a low 1.5 percent but then trended up rapidly, in a range of 1.5-4.7 percent through the 1960s. In 1970, it reached 5.5 percent and then continued to trend up in a range from 5.5-14.4 percent through the 1970s before culminating at 14 percent in 1980. In comparison, today's global inflation is only recently above pre-pandemic levels, since mid-2021 (at 5 percent on average in 2021-22 and 7 percent in March 2022). That said, model forecasts and consensus expectations suggest that global inflation could rise to almost 10 percent later this year before it starts declining.

In contrast, central banks in advanced economies and many EMDEs now have clear mandates for price stability, expressed as an explicit inflation target. They have adopted transparent operating procedures, announcing and justifying their settings for the policy rate after regularly scheduled monetary policy decision meetings. Over the past three decades, they have established a credible track record of achieving their inflation targets (Bordo et al. 2007; Eichengreen 2022).

As a result of such improvements in policy frameworks and better anchored inflation expectations, inflation—in particular core inflation—has become much less sensitive to various types of inflation shocks (Figure 5c).[5] In addition, despite the supply disruptions in 2021-22, inflation increases were concentrated narrowly in only a few energy-intensive and pandemic-

[5] The correlation of core inflation with import prices or producer price index (PPI), which are more sensitive to commodity price shocks, has declined significantly over time, despite continued high correlation between headline CPI inflation and PPI and import price inflation. This is consistent with better-anchored inflation expectations that dampen the impact of external shocks on core inflation (Ha et al. 2019b).

affected sectors. Inflation of other goods and services has remained low in most countries. This stands in contrast to 1979-80, when the inflation acceleration was broad-based, cutting across virtually all sectors (Figure 5d). Hence, high inflation in some sectors is expected to return to low levels once supply disruptions ease and commodity prices stabilize (Borio et al. 2022; Ilzetzki 2022).[6]

Resolution of high inflation in the 1970s. Eventually, monetary policy tightening in the late 1970s and early 1980s reduced inflation in advanced economies to a median of 3 percent in 1986 from its peak of 15 percent in 1974, and established central bank credibility, although often at the cost of deep recessions. In the United States, for example, short-term interest rates almost quadrupled between the end of 1976 and mid-1981. In the wake of these interest rate increases, U.S. output contracted by more than 2 percent between early 1981 and mid-1982. In parts of advanced-economy Europe, central banks set a higher priority on inflation control, and responded earlier to rising inflation. As a result, in several advanced economies, the inflation cycle was less pronounced than in the United States, but it was also accompanied by recessions in the early 1980s.

Global inflationary pressures also led to a significant increase in EMDE inflation, including in those that had experienced low and stable inflation in the late 1960s and early 1970s (Cline 1981). A number of Latin American countries had accumulated large debts during the 1970s (mainly funded from the petrodollar windfall of the oil-exporting countries). However, the sharp increase in global interest rates and the collapse of commodity prices in the early 1980s made servicing this debt very difficult (Arteta et al. 2015). Mexico's default in August 1982 marked the beginning of the Latin American debt crisis and the region's "lost decade" (Kose and Terrones 2015).

Lessons from the 1970s for the 2020s. As noted above, in the near-term, inflation is likely to remain elevated as demand and supply shocks pass through wage and price setting processes. Beyond the near-term, inflation is likely to decline but the experience of the 1970s suggests some material risks to this inflation outlook.

Three factors suggest that, globally, inflation is likely to return to target rates in the medium-term. First, as central banks tighten monetary policy and pandemic-related fiscal stimulus is unwound, growth will slow; as the supply disruptions caused by the war in Ukraine are priced in, commodity prices will stabilize; and as global production lines and logistics adjust, supply bottlenecks will ease (Reifenschneider and Wilcox 2022; Ilzetzki 2022). Second, after decades of building credibility, inflation expectations are likely to remain well anchored over the medium-

[6] Armantier et al. (2022) examine the pass-through of actual inflation into short- and longer-term inflation expectations before and after pandemic, and find that short-term expectations remained highly sensitive to inflation realizations in the COVID-19 period while the pass-through from short-term expectations to longer-term expectations declined during the pandemic. The authors conclude that consumers do not view the current elevated inflation as long-lasting.

term (Armantier et al. 2022; Bordo and Orphanides 2013). Finally, as long as the structural forces that depressed inflation before the pandemic persist, trend inflation will continue to be low (Box). All these factors point to a return to low inflation over the medium-term.

However, a considerable risk remains that some of these three factors do not materialize as expected and inflation remains high or continues to rise. First, supply shocks could become more frequent or more pronounced and cause repeated inflation overshoots that may eventually de-anchor inflation expectations. Second, central banks could fail to reach their targets so often that eventually economic agents lose faith in their commitment or ability to maintain price stability and inflation expectations become de-anchored. Third, the structural forces that have depressed inflation over the past decade may fade.

V. Challenges confronting EMDEs

More complex challenges. Central banks in EMDEs face more complex challenges than those in advanced economies, arising from less well-anchored inflation expectations, from an increasingly influential global inflation cycle, and from macrofinancial vulnerabilities.

Current inflation expectations point to inflation returning to target levels with a gradual monetary policy tightening by central banks in advanced economies. Even in this fairly benign scenario, EMDEs face greater challenges than advanced economies. Since inflation expectations in these economies are less well-anchored than in advanced economies, most inflation-targeting EMDEs have had to tighten monetary policy much earlier than advanced economies, some already starting in late 2020. As long as recent commodity price shocks work their way into headline inflation, EMDE central banks will likely need to continue tightening policy to head off any further increases in inflation expectations. Unfortunately, this tightening of policy is taking place well before their economic recoveries from the pandemic are complete, in a procyclical fashion (Végh et al. 2017). In addition, EMDEs now face tightening advanced-economy monetary policy which would further raise borrowing cost and dampen global activity.

Should risks materialize and inflation turn out to be more persistent or higher than currently anticipated, advanced economy central banks may tighten monetary policy even faster or for longer than currently expected. Such tightening carries the risk of creating global financial market jitters that may cause capital outflows, create depreciation pressures, and could interact with record-high debt and still-sizable fiscal and current account deficits to lead to financial stress in EMDEs.

Box. Structural Forces of Disinflation over the Past Five Decades

Demographic changes, technological advances, globalization, structural changes, and robust policy frameworks have been instrumental keeping inflation low over the past five decades. Should these forces recede, increases in short-term inflation may become more persistent, and thus threaten the anchoring of long-term inflation expectations (Rogoff 2003, 2014; Gersbach 2021; Gopinath 2021).

Demographic changes. Rapid labor force growth, due to population growth and increased participation of women, helped dampen increases in wages and input costs (Goodhart and Pradhan 2020). The disinflationary benefits reaped from this process may, however, now be at an inflection point as the share of the working-age population stabilizes even in EMDEs (World Bank 2018). In addition, recent data in advanced economies indicate that a growing proportion of population is choosing to leave the labor force early—the "Great Retirement" (Rodgers and Ricketts 2022).

Technological advances. Automation, the increasing adaptability of computers, robotics, and artificial intelligence have improved production processes in many sectors. At the same time, these factors have lowered demand for routine production and clerical workers and lowered wage and price pressures (Autor et al. 2015). In some advanced economies, disinflation has also been attributed partly to price transparency and competitive pressures introduced by the growing digitalization of services, including e-commerce or sharing services (Goolsbee and Klenow 2018; Dong et. al 2017).

Globalization. Over the past three decades, the entry of China and Eastern Europe into the global trading system has greatly reduced the prices of many manufactured goods. Global value chains have contributed to lower inflation through outsourcing and greater competition (Andrews et al. 2018). Over the past decade, however, the maturing of global value chains appears to have contributed to slowing trade growth (World Bank 2020). New tariffs and import restrictions have been put in place in advanced economies and EMDEs over the past six years. Thus far, notwithstanding these concerns and some severe logistical bottlenecks, global value chains have appeared to remain resilient (di Stefano 2021). However, rising protectionist sentiment and geopolitical risks may slow or even reverse the pace of globalization.

Structural changes. In EMDEs, the large-scale shift of labor and other resources from agriculture to higher productivity employment in manufacturing offered productivity gains (Dieppe 2020). Declining unionization of the labor force, smaller collective bargaining coverage and greater labor and product market flexibility have dampened wage and price pressures (Ha et al. 2019a).

Policy frameworks. Over the past four decades, many advanced economies and EMDEs implemented macroeconomic stabilization programs and structural reforms, improved fiscal frameworks, and gave their central banks clear mandates to control inflation. A shift from a strong mandate of price stability to objectives related to the financing of government would undermine the credibility of monetary policy frameworks and raise inflation expectations. Mounting public and private debt in EMDEs in the past decade could weaken commitment to disciplined fiscal and monetary policy frameworks. EMDE sovereign credit ratings have continued to deteriorate, with some falling below investment grade, reflecting concerns about rising debt and deteriorating growth prospects (Kose et al. 2019; Ha and Kindberg-Hanlon 2021). Populist sentiment could inspire a move away from prudent fiscal policies and disciplined monetary policy frameworks.

Difficulty of anchoring inflation expectations. The extensive debate on the persistence of recent inflationary pressures has repeatedly emphasized the importance of anchoring inflation expectations (Blanchard 2021; Krugman 2021; Ha et al. 2022). The more credible households and firms consider central bank policy, the more likely inflation expectations are to be well anchored.

In both advanced economies and EMDEs, long-term (five-year-ahead) inflation expectations followed a downward trend during the past three decades. Even during 2021, when inflation rose sharply, long-term inflation expectations remained steady in advanced economies (Figure 6a). In EMDEs, too, inflation expectations decreased markedly in the second half of the 1990s, and then remained broadly stable although with wide variation (Kose et al. 2019; Figure 6b).

Since the beginning of the pandemic, however, there have been marked increases in inflation and medium-term inflation expectations in many EMDEs in Europe and Central Asia, Latin America and the Caribbean, and South Asia, while expectations remained stable or even decreased in EMDEs in East Asia and Pacific and Middle East and North Africa (Figure 6c). It remains to be seen whether the energy and food price increases triggered by the war in Ukraine further raise long-term inflation expectations in more EMDEs.

If inflation expectations are well anchored, they should not be sensitive to news because household and firms assume that transitory shocks do not affect inflation over the long-run. Recent research suggests that the sensitivity of inflation expectations to surprises in EMDEs is higher than in advanced economies but that, in both country groups, inflation expectations have indeed become better anchored over time (Figure 6d).[7] In the median advanced economy, the sensitivity of expectations to current inflation news has declined essentially to zero. However, in EMDEs, it has remained statistically significant, implying that inflation expectations are still sensitive to inflation shocks.

Increasingly influential global inflation cycle. Inflation has become increasingly globally synchronized. The contribution of global factors to domestic inflation variation has grown over time: since 2001, it has almost doubled, and now accounts for 22 percent of inflation variation (Ha et al. 2019b). In the case of EMDEs, global factors have explained about one-fifth of inflation variation over the past two decades. A strengthening global inflation cycle may put upward pressure on EMDE inflation.

Global factors such as commodity prices shocks and supply disruptions play a major role in driving short-term variations in domestic inflation in EMDEs. There is a risk that a further boost from surging energy and food prices could upset their recently anchored inflation expectations. The

[7] Following Gürkaynak et al. (2010) and Beechey et al. (2011), Kose et al. (2019) assess the anchoring of inflation expectations by measuring the sensitivity of long-term inflation expectations to inflation surprises–defined as the difference between realized inflation and inflation expectations in the previous period. They report that for a one percentage point positive inflation surprise, in a typical EMDE, inflation expectations were revised up by about 0.2 percentage point six months later.

war in Ukraine has led to disruptions in the supply of agricultural commodities that are driving up food prices. A runup in energy and fertilizer prices, or worse, complete shut-offs of supply due to the war, may set back planting and harvesting. This would further fuel food inflation over the next several months. In low-income countries, which have high shares of food in their consumption baskets, a sharp rise in food prices could exacerbate inflationary pressures and heighten monetary policy challenges.

Larger macrofinancial vulnerabilities. An upward shift of rate expectations in advanced economies—in particular the United States—could lead to a sharp repricing of risk by global financial markets. The macroeconomic effects of an abrupt tightening of global financial conditions, as well as weaker consumer and business confidence, would compound the unwinding of global fiscal support and deepen the global slowdown already underway.

Increases in advanced-economy interest rates may result in sizable cross-border effects on EMDE yields and financial conditions, which could weigh on the recovery (Hoek et al. 2020, 2021). EMDEs would experience capital outflows in response to increased returns in advanced economies, and heightened investor risk aversion. Resulting currency depreciations would worsen already record-high debt burdens and boost inflation. Domestic credit spreads would widen, sparking a rise in defaults, especially in those countries with pre-existing balance sheet vulnerabilities. Increased debt servicing costs amid heightened rollover risks would force governments in many EMDEs, particularly in countries with limited fiscal space, to reduce public spending and delay investment projects and might even trigger debt distress that culminates in restructuring (Kose et al. 2021b, 2021d). This would lead to renewed downturns in EMDEs with growth falling significantly.

Some EMDEs would be particularly vulnerable to financial market stress. These include EMDEs with large financing needs, especially in foreign currency. EMDEs with high current account deficits may find it difficult to fund these deficits when capital flows stop; EMDEs with high short-term or foreign-currency denominated government or private debt may face debt rollover challenges or sharply higher funding costs.

VI. What can EMDE policymakers do?

EMDE policymakers are facing the first serious global monetary policy tightening cycle after more than a decade of highly accommodative external financial conditions. Prior to the onset of the pandemic, many EMDEs had achieved a remarkable decline in inflation since the mid-1990s. A number of EMDE central banks have already started raising interest rates to contain inflationary pressures. However, given the size and nature of current shocks, it is likely that inflation will remain above elevated for an extended period in these economies. In light of the multiple sources

of uncertainty, and the time lags in the transmission of economic shocks, the current tightening cycle in EMDEs could also end up being steep.

The invasion of Ukraine and the increase in policy rates in some major advanced economies have so far contributed to increased financial market volatility but have yet to trigger a material tightening of global financial conditions. Nevertheless, the recent surge in global inflation and the global tightening cycle will likely have significant implications for EMDEs.

To mitigate adverse effects of the tightening cycle in advanced economies, and the current commodity price surge, EMDE policies will require careful *calibration*, *credible* formulation, and clear *communication*. This approach can go a long way in making these economies more resilient to sudden shifts in global financial markets.

For monetary policy, calibrating policy levers to get ahead of inflation without stifling the recovery will be key. For EMDEs, communicating monetary policy decisions clearly, leveraging credible monetary frameworks, and safeguarding central bank independence will also be critical to manage the cycle. To reinforce the anchor of low inflation expectations, policymakers need to communicate clearly not only with financial markets but also with households and firms (Coibion et al. 2021; D'Acunto and Weber 2022).

On the financial side, policymakers can rebuild reserve buffers and realign prudential policy to prepare for potential financial stress. Banking system exposures to exchange rate risk and rollover risk need to be monitored carefully and, if necessary, contained through macro- and micro-prudential policies. Credit quality and nonperforming loans need to be reported transparently such that prompt corrective action can be taken. Banks' capital and liquidity buffers need to be sufficiently sound to be able to absorb shocks. If deployed appropriately, reserve buffers can help stem temporary exchange rate pressures.

With respect to fiscal policy, the message is much the same. The pace and magnitude of withdrawal of fiscal support must be finely calibrated and closely aligned with credible medium-term fiscal plans. Moreover, policymakers need to address investor concerns about long-run debt sustainability by strengthening fiscal frameworks, enhancing debt transparency, upgrading debt management functions, and improving the revenue and expenditure sides of the government balance sheet. 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.

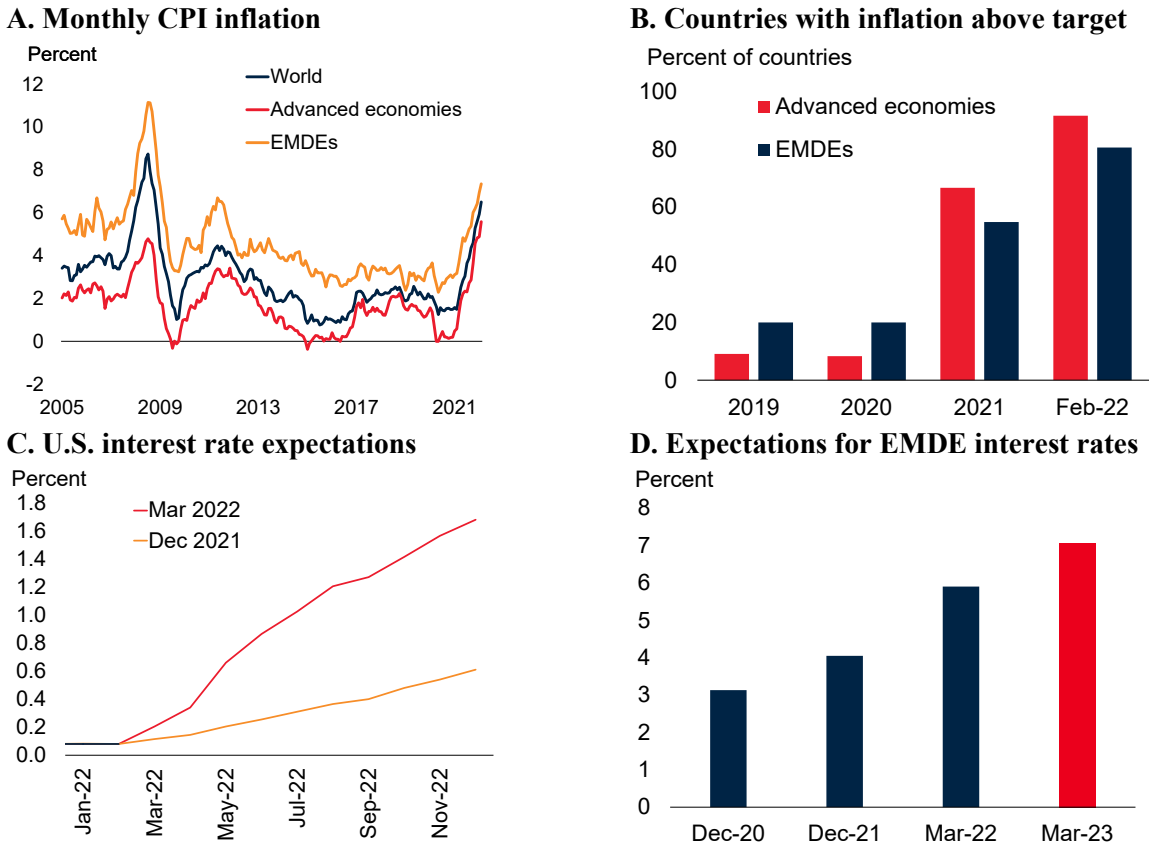
If the recent surge in energy and food prices persists, EMDE commodity exporters and importers may face diverging policy challenges. Commodity importers may need to contain inflation pressures without weighing on growth and consumption and while containing fiscal and external pressures resulting from high commodity prices. Commodity exporters may need to contain

inflation pressures amid strong growth on the back of rapidly expanding resource sectors. Some of the windfalls from higher commodity prices could be invested to diversify exports and enhance long-term growth—including human capital—instead of being used for distortive energy subsidies.

Export restrictions and disrupted global food markets due to the war are expected to contribute to rising global food inflation. The use of trade policy interventions and price controls to insulate domestic markets from food price shocks could compound the volatility of international prices and lead to even higher domestic prices (Laborde et al. 2019). To address the volatility in food prices, EMDE policymakers need to strengthen social safety nets and enhance the resilience of food systems, while refraining from counterproductive price control measures. Price controls tend to distort markets and have adverse consequences for growth and poverty reduction, which often prove difficult to roll back after the crisis (Guenette 2020).

In most low-income countries, inflation is also expected to stay elevated this year, and possibly through 2022 in particular due to double-digit food price inflation. Mounting inflation and fiscal pressures could heighten tensions between the multiple objectives of low-income country central banks (Ha et al. 2019c; World Bank 2022). Broader policy efforts aimed at strengthening fiscal and monetary policy frameworks, and improving debt management, are required in these economies to safeguard price stability.

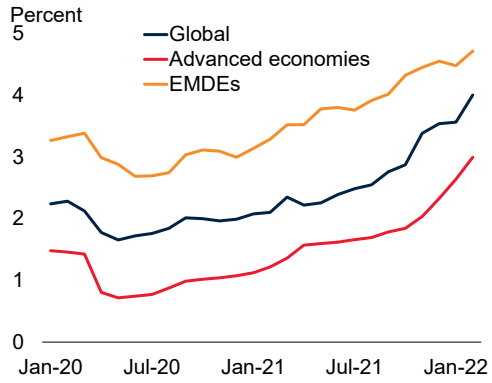
Figure 1. Inflation and monetary policy



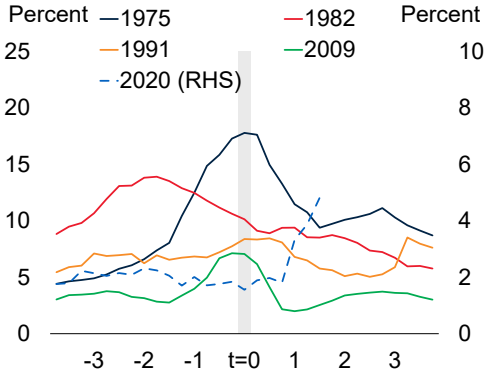
Sources: Consensus Economics; Haver Analytics; World Bank.
Note: EMDEs = emerging market and developing economies.
A. Year-on-year inflation. CPI refers to consumer price index. Lines show group median inflation for 81 countries, of which 31 are advanced economies and 50 are EMDEs. Last observation is February 2022.
B. Bars show the share of inflation-targeting countries (in percent) with average inflation during the course of the year (or month) above the target range.
C. Market expected interest rates based on overnight interest rate swaps. Mar 2022 refers to data from March 14, 2022.
D. Consensus forecasts for one-year-ahead 3-month Treasury Bill yields (or policy rates) for 18 EMDEs based on March 2022 Consensus Economics surveys.

Figure 2. Inflation and drivers

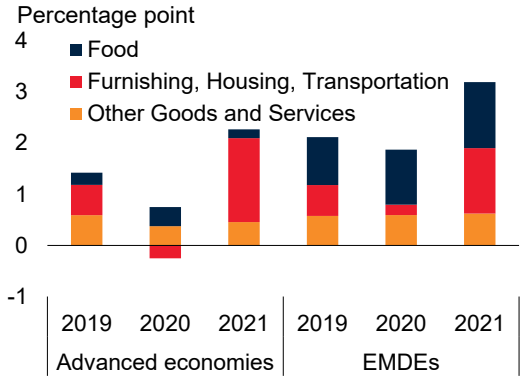
A. Short-term inflation expectations



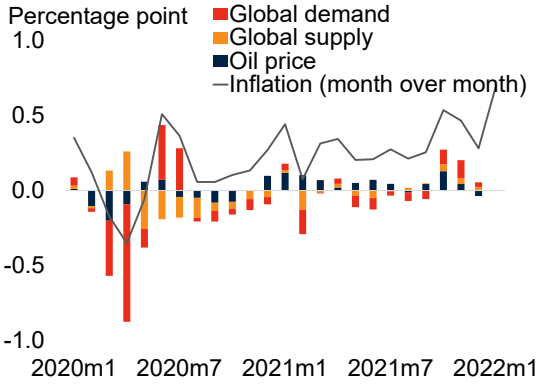
B. Global CPI inflation around global recessions



C. Sectoral contribution to headline CPI inflation



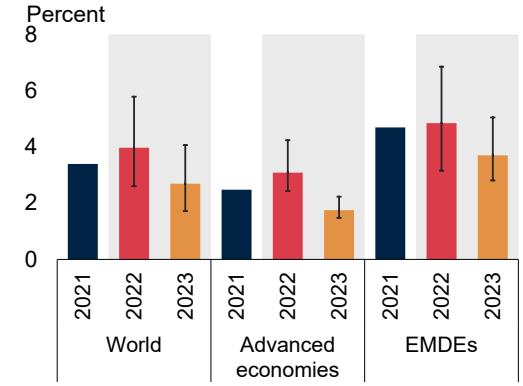
D. Historical contributions to global CPI inflation



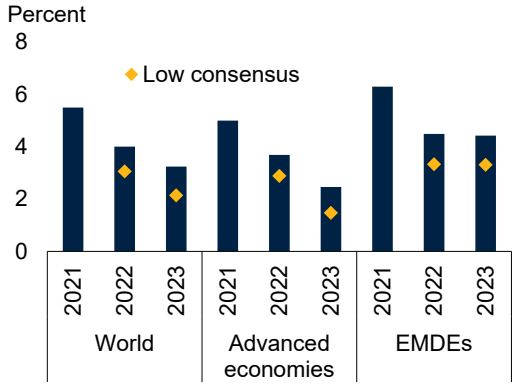
Sources: Consensus Economics; Ha, Kose, and Ohnsorge (2021a, b); International Monetary Fund; Kose et al. (2021a); World Bank.
Note: EMDEs = emerging market and developing economies.
A. Lines show the median one-year-ahead headline CPI inflation expectations for 32 advanced economies and 51 EMDEs derived from February 2022 Consensus Economics surveys.
B. Horizontal axes indicate years before and after the troughs of global recessions (shaded area, t=0). Global inflation is defined as median headline CPI inflation (four-quarter rolling average of quarterly annualised inflation) across 76 countries, consisting of 25 advanced economies and 51 EMDEs. The trough of the 2020 global recession is assumed to be the second quarter of 2020.
C. Median headline CPI inflation (annual averages) in 12 sectors across 147 countries. Sectors are categorized following the International Financial Statistics. "Food" indicates food and nonalcoholic beverages and alcoholic beverages, tobacco, and narcotics sectors. "Housing" indicates housing, water, electricity, gas and other fuels; "furnishing" indicates furnishings, household equipment and routine household maintenance sectors. "Other goods and services" include clothing, health, communication, recreation, education, restaurants, and miscellaneous sectors.
D. Contributions to month-over-month headline consumer price inflation for 81 countries, based on factor-augmented vector autoregression (FAVAR) estimation, as explained in Ha, Kose, and Ohnsorge (2021a).

Figure 3. Inflation and growth prospects

A. Consensus inflation expectations



B. Consensus GDP growth forecasts



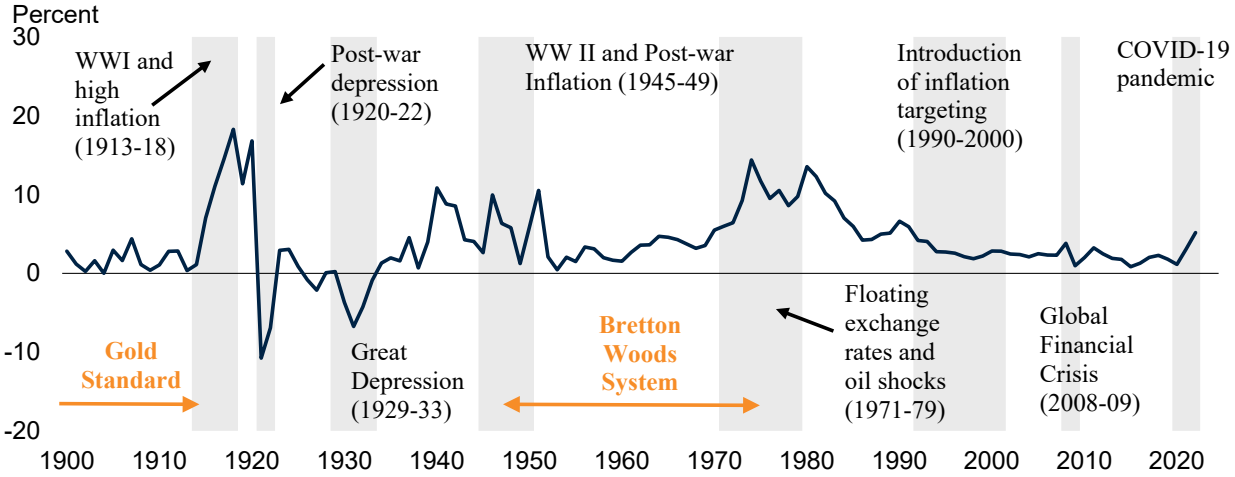
Sources: Consensus Economics; Haver Analytics; World Bank.

Note: EMDEs = emerging market and developing economies.

A. Consensus forecast for median headline CPI inflation for 2022 based on February 2022 surveys of 32 advanced economies and 50 EMDEs. 2021 numbers are based on actual inflation. Vertical lines indicate interquartile ranges.

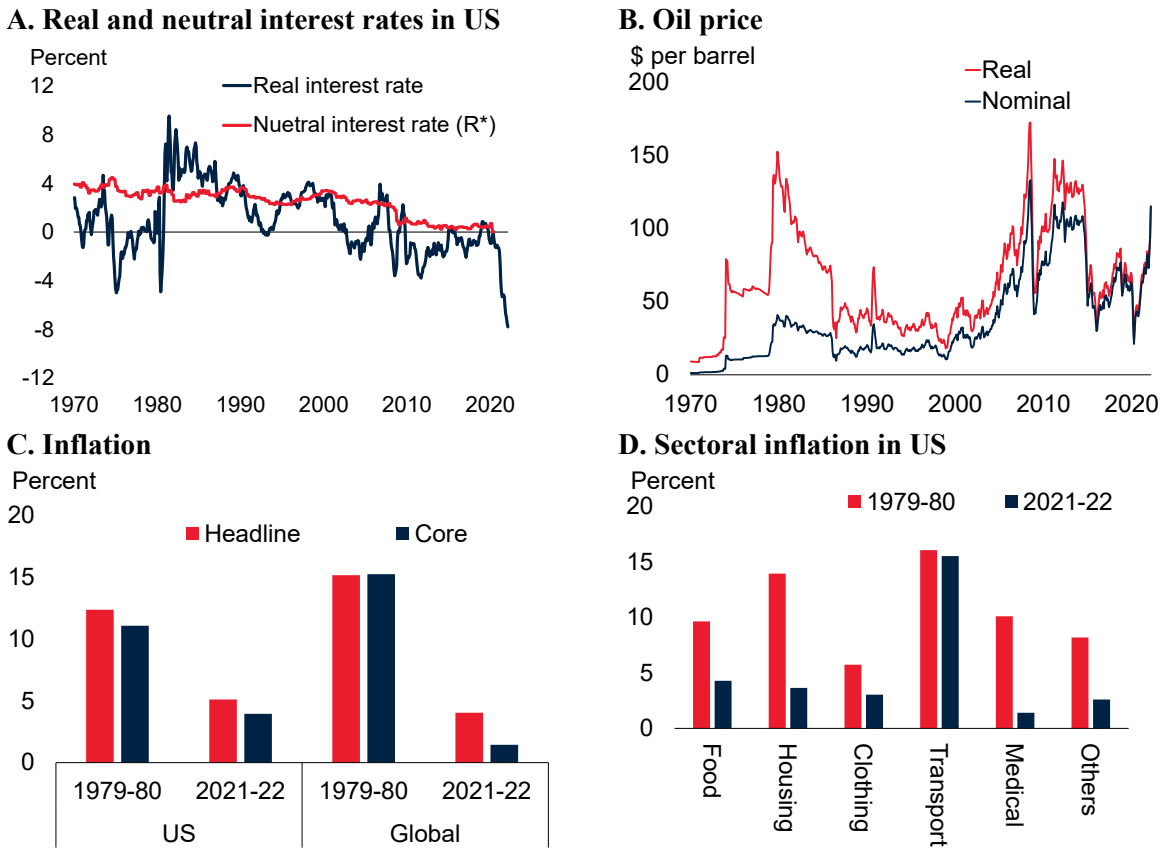
B. Aggregate growth rates are calculated using GDP weights at average 2010-19 prices and market exchange rates. Data for 2022 are from the January 2020 *Global Economic Prospects* report and data for 2022 and 2023 are average consensus growth forecasts as of February 2022. The yellow diamonds show the minimum of consensus growth forecast.

Figure 4. Global inflation: 1900-2022



Source: Ha et al. (2019a); World Bank.
Note: Median of annual average inflation in 24 countries where data are available across the full period. 2022 inflation is based on the average of January and February 2022.

Figure 5 Inflation and interest rates in the 1970s and 2020s



Sources: Holston et al. (2017); Federal Reserve Economic Data; Havers Analytics; World Bank.

Note: CPI: consumer price index.

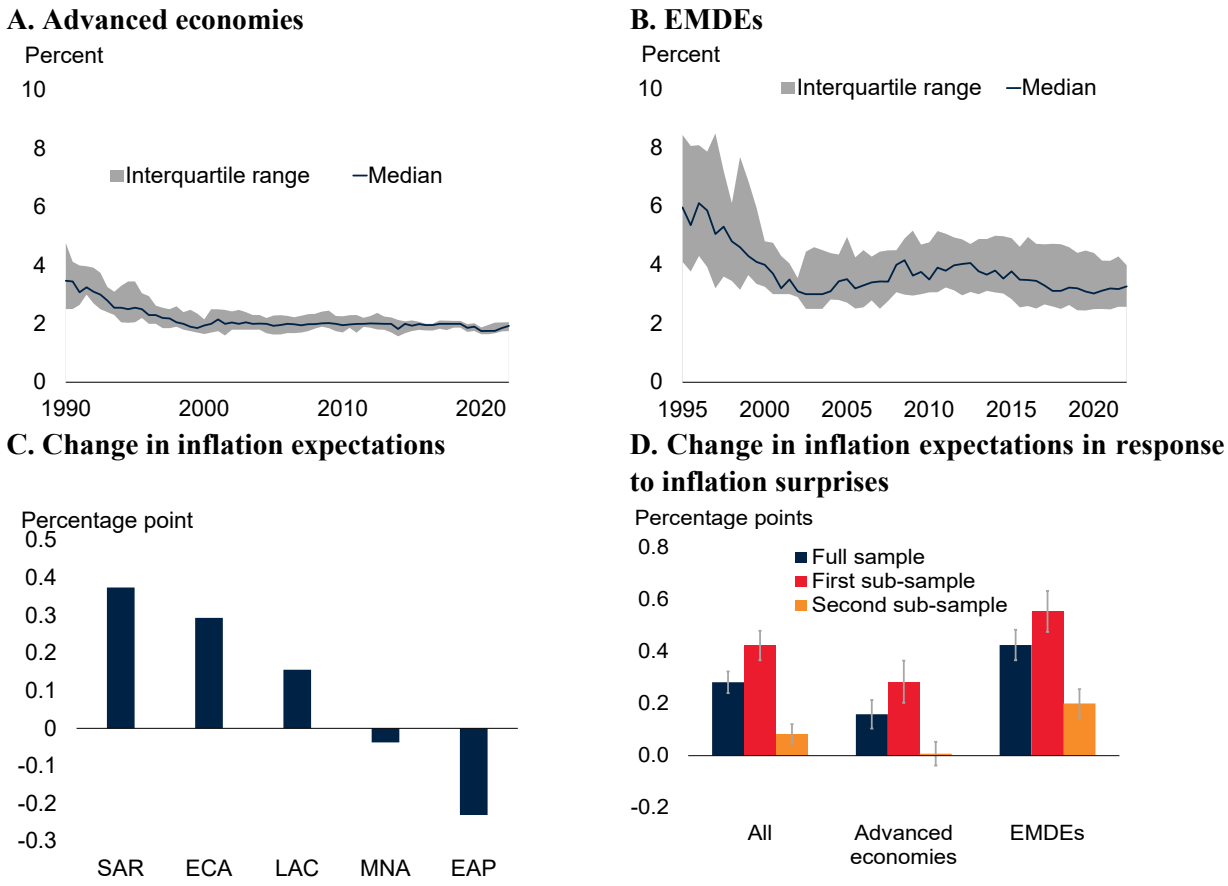
A. Real interest rates are based on effective federal funds rates – US CPI inflation. Neutral interest rates (R*) are the estimates of Holston et al. (2017).

B. Nominal and real crude oil prices (averages of Dubai, Brent, and WTI prices). Real oil prices are deflated by US CPI index (February 2022 = 100).

C. Annual averages of headline and core CPI inflation in the United States and global (average across 40 countries). 2022 is based on the averages of January and February 2022.

D. Sectoral CPI inflation (monthly averages of year-on-year inflation) in the United States. 2022 is based on the averages of January and February 2022. "Others" includes communication, recreation, education, restaurants, and miscellaneous sectors.

Figure 6. Long-term inflation expectations



Sources: Consensus Economics; International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies.

A.B. Inflation expectations are five-year-ahead expectations of annual inflation, based on a sample of 24 advanced economies (a) and 20 EMDEs for 1995H1-2022H1. 2022H1 is based on the survey of January 2022.

C. 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.

D. Inflation expectations are five-year-ahead expectations of annual inflation. Inflation shocks are defined as the difference between realized 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 percent confidence intervals of the regression coefficients. The regression is 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.

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