

# Anchoring inflation expectations becomes even more crucial to fight inflation in 2023

The world economy faced a steep rise in the inflation rate in 2022, with rising inflation observed in both developed and developing economies. A series of global events triggered and aggravated the current global inflation surge. Recovering demand after the COVID-19 crisis against various supply constraints easily created upward pressures on prices. The war in Ukraine constrained supply and triggered higher commodity prices globally, particularly food and energy items. The appreciation of the US dollar vis-à-vis many currencies also contributed to the global inflation trend by raising the costs of imports for both developed and developing countries. Moreover, substantial devaluations of the national currencies against the US dollar resulted in extremely high inflation in many developing countries.<sup>1</sup>

In October 2021, 20 of 146 countries registered inflation rates above 10 per cent, and in October 2022, 68 of 146 countries registered inflation above 10 per cent (figure 1). In October 2022, the inflation rate reached above 30 per cent in 15 countries. Despite the common trend, the nature of inflation differs among countries, dependent on their economic structures, international monetary settings (such as regional monetary unions), and monetary policy regimes. Presently, inflation dynamics within a country are driven by a combination of three factors: tight supply-demand conditions, elevated inflation expectations, and eroding value of national currencies. In each country, these three factors affected inflation dynamics in varying proportions.

The swift and steep tightening of the monetary policy stances of the US Federal Reserve since March 2022 was followed by other central banks worldwide.<sup>2</sup> A tight monetary policy stance is expected to continue globally in 2023 as central banks continue fighting inflation,

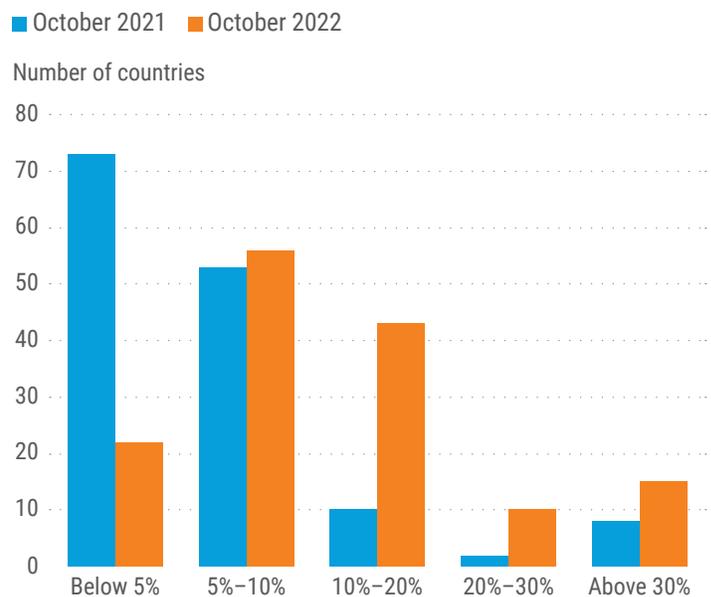
<sup>1</sup> In October 2022, 15 countries experienced an inflation rate more than 30 per cent as follows: Argentina (88 per cent), Cuba (40 per cent), Ethiopia (32 per cent), Ghana (40 per cent), Lao PDR (37 per cent), Lebanon (158 per cent), Rep. of Moldova (35 per cent), Rwanda (31 per cent), Sierra Leone (33 per cent), Sri Lanka (66 per cent), Sudan (103 per cent), Suriname (49 per cent), Türkiye (86 per cent), Bolivarian Rep. of Venezuela (156 per cent), Zimbabwe (269 per cent). Except for Rep. of Moldova and Rwanda, the countries above experienced steep depreciation of their national currencies against the US dollar in 2022.

<sup>2</sup> The People's Bank of China and the Bank of Japan are notable exceptions.

## KEY MESSAGES

- » The world economy faced a steep rise in the inflation rate in 2022. Although there are some signs of a slowdown in the pace of inflation, central banks are cautious, as inflation expectations can be entrenched at a high level.
- » It is crucial for central banks to maintain a “nominal anchor” to stabilize inflation expectations. Currently, exchange rate targeting, monetary aggregate targeting, and inflation targeting are used as nominal anchors.
- » Many central banks in developing countries, particularly those that run chronic current account deficits, struggle to establish credible and sustainable nominal anchors that are crucial to fight high inflation amid deteriorating international financing conditions.

Figure 1  
**Distribution of annual inflation rate**  
(146 countries: October 2021 and October 2022)



Source: UN DESA, based on national sources retrieved at Trading Economics.

aiming to slow down aggregate demand growth to ease inflationary pressures. In addition to managing aggregate demand, central banks are tasked to “anchor” inflation expectations by utilizing a credible “nominal anchor”. For central banks in developed countries, inflation expectations will be a more critical variable for monetary policy decisions as inflation is likely to slow down. However, many central banks in developing countries struggle to establish credible and sustainable nominal anchors that are crucial to fight high inflation amid deteriorating international financing conditions.

## ANCHORING INFLATION EXPECTATIONS

In addition to aggregate demand management, anchoring inflation expectations is crucial for monetary policy to fight inflation. In a series of policy statements for monetary tightening, major central banks repeatedly pointed out the risk of inflation expectations being “entrenched” at a higher level above the target range.<sup>3</sup> In fact, in the United States, the long-term inflation expectations, measured by the break-even inflation rate, peaked in March 2022 (3.4 per cent for 5-year, 2.8 per cent for 10-year) and came down in December to 2.3 per cent for both 5-year and 10-year. The levels are slightly higher than the average in 2018 (2.0 per cent for 5-year, and 2.1 per cent for 10-year). However, 1-year ahead expectations, based on the University of Michigan survey data, remained high at 4.9 per cent in November 2022. Its 2018 average stood at 2.8 per cent. The widening gap between the short-term and the long-term inflation expectations indicates that while long-term inflation expectations are well anchored, short-run expectations have been trending higher, arguably becoming entrenched at a higher level (figure 2). The current situation with inflation expectations, given tight labour market conditions, suffices to make the US central bank continue taking a cautious stance on inflation.<sup>4</sup>

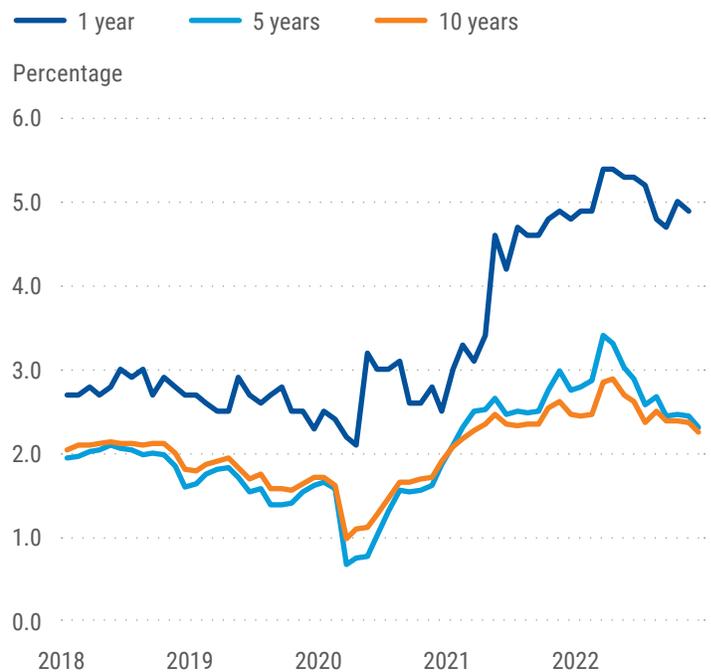
The consensus among economists is that inflation expectations create inflationary pressures as businesses and consumers incorporate them into their forward-looking pricing behaviour.<sup>5</sup> Until the early 1980s, the predominant view on inflation was based on

<sup>3</sup> For example, Christine Lagarde (2022), *Monetary policy in a high inflation environment: commitment and clarity*, Lecture delivered on 4 November; and Federal Reserve (2022), *Transcript of the press conference of US Federal Reserve Chair Jerome Powell on 14 December*.

<sup>4</sup> The Federal Open Market Committee emphasized its commitment to bring down inflation rate to the target 2 per cent. See FOMC (2022). *Federal Reserve issues FOMC statement*. Press Release. 14 December 2022.

<sup>5</sup> This behaviour is often known as “wage-price spiral” and “second round effects”. Various institutional, social and market factors may influence such behaviour, e.g., wage bargaining power of workers.

Figure 2  
Inflation expectations in the United States



Source: 1-year ahead expectation from University of Michigan Inflation Expectation [MICH], 5-year ahead expectation from Breakeven Inflation Rate [T5YIE], 10-year ahead expectation from 10-Year Breakeven Inflation Rate [T10YIE], retrieved from FRED, Federal Reserve Bank of St. Louis.

supply-demand conditions, particularly the empirically observed inverse correlation between the unemployment rate and inflation, known as the Phillips curve. The Phillips curve suggests that lower unemployment rates indicate a labour supply constraint, resulting in upward wage pressures creating economy-wide inflationary pressures unless there is productivity growth. Policies based on the Phillips curve focused on maintaining the optimal inflation-unemployment trade-off, often known as the Non-Accelerating Inflation Rate of Unemployment (NAIRU).<sup>6</sup> However, the experience with the Great Inflation in the United States, which lasted from 1965 to 1982,<sup>7</sup> turned academic and policy attention to understanding the role of expectations in inflation dynamics in addition to the Phillips curve and NAIRU.

<sup>6</sup> NAIRU is also known as natural rate of unemployment where the level of unemployment does not cause inflationary pressures. See, Reserve Bank of Australia (2022), *The Non-Accelerating Inflation Rate of Unemployment (NAIRU)* for details. NAIRU is estimated from the detailed labour market data (such as demography, labour market participation, skills distribution) as well as the observed shift in the Phillips curves.

<sup>7</sup> Federal Reserve Bank of St. Louis (2014), *Federal Reserve History: Great Inflation 1965-1982*. During this period, inflation rate went up from 1 per cent in 1964 to 14 per cent in 1980. The effective Federal Funds rate went up to 19 per cent in 1981.

Essentially, the trade-off between unemployment and inflation indicated by the Philips curve became less clear once high inflation expectations set in. In their seminal paper in 1977, Kydland and Prescott<sup>8</sup> showed that high and self-fulfilling inflation expectations “give rise to large enough increases in wages that unemployment never declines”.<sup>9</sup> At worst, high inflation expectations result in persistent stagflation where high inflation coexists with high unemployment. Central banks became aware of the importance of anchoring inflation expectations, which is essential to prevent stagflation.

## USE OF NOMINAL ANCHORS

While inflation, by definition, is the appreciation of the price of goods and services, it also means the erosion of the purchasing power of money: the same amount of money purchases a smaller amount of goods and services. Maintaining the purchasing power of money – or the real value of wages – has historically been fulfilled by central banks through the adoption of various forms of “nominal anchors” that signal a commitment to stabilize the value of national currencies. A nominal anchor is defined as “a constraint on the value of domestic money”, serving also as “a constraint on discretionary monetary policy”.<sup>10</sup> The adoption of a nominal anchor is a policy announcement to the public that the value of the national currency is institutionally tied to a variable that assures the purchasing power of that currency. Hence, when the target variable becomes public knowledge, the nominal anchor also directly supports anchoring inflation expectations.<sup>11</sup>

In the past, gold was the nominal anchor under the gold standard, and under the Bretton Woods system, the nominal anchor was a combination of gold and fixed exchange rate against the US dollar for most central banks worldwide. After the dissolution of the Bretton Woods system in 1971, central banks sought alternative nominal anchors such as monetary aggregate and exchange rate. Depending on which was chosen as the nominal anchor monetary policy regimes were characterized as “monetary targeting” or “exchange rate targeting”. Under the monetary targeting policy regime, the monetary policy aims to achieve a target growth rate of monetary aggregates, such as monetary base, M1 and M2. The monetary targeting regime was

widely adopted as a nominal anchor in the 1970s and 1980s. However, central banks in developed countries abandoned monetary targeting by the end of the 1980s because of the increasingly weak relationship between the growth of monetary aggregates and inflation.<sup>12</sup>

Exchange rate targeting monetary policy regime is adopted by many developing economies. For exchange rate targeting, various exchange rate regimes are adopted, including the adoption of a foreign currency with no separate legal tender (so-called “official dollarization”), currency board, conventional peg, and other “soft” peg arrangements. Under exchange rate targeting regime, monetary policy seeks to maintain the exchange rate of the national currency with respect to a well-defined basket of other currencies at a target level or within a target range (the anchor). Exchange rate targeting was very powerful in stabilizing hyperinflation that many developing countries experienced in the 1980s.<sup>13</sup> It offers a transparent policy rule to the public that domestic inflation expectations are anchored to the inflation rate of the anchor country with stable prices of imports. However, under exchange rate targeting, the country’s monetary policy must shadow that of the anchor country. Thus, it becomes challenging to deal with country-specific domestic inflationary pressures.

Over the last 30 years, an increasing number of central banks have adopted an inflation target as the nominal anchor. However, adopting the goal variable rather than an intermediate variable (exchange rate or money aggregate growth) as a nominal anchor requires a solid self-enforcing mechanism. Institutional and administrative commitment is crucial to convey that the central bank’s overriding aim is price stability. That requires central bank independence from fiscal authorities and policy credibility, so that expectations that inflation will remain anchored about the target value are actually realized, hence maintaining price stability. Also, inflation targeting monetary policy regimes requires central bank to be engaged in active and transparent policy communications. Otherwise, inflation targeting does not anchor inflation expectations or the purchasing power of the national currency. Over the last ten years, more central banks in developing countries have adopted inflation-targeting monetary policies. As of April 2021, the IMF classified that among 193 central banks and monetary authorities of its

<sup>8</sup> Finn Kydland and Edward Prescott (1977), Rules Rather than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy*. 85:3. pp. 473-492.

<sup>9</sup> Royal Swedish Academy of Sciences (2004), *The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2004: Popular Information*.

<sup>10</sup> Frederic S. Mishkin (1999), International Experiences with Different Monetary Policy Regimes. NBER Working Paper 6965. page 1.

<sup>11</sup> Ibid.

<sup>12</sup> Several factors, such as financial innovation, contributed to this weakening relationship. Moreover, targeting broad money growth is technically difficult. For the experience of the United States, See Ben S. Bernanke (2006) *Monetary Aggregates and Monetary Policy at the Federal Reserve: A Historical Perspective*, speech delivered at the Fourth ECB Central Banking Conference, Frankfurt, Germany.

<sup>13</sup> Sebastian Edwards (1992), Exchange Rates as Nominal Anchors. NBER Working Paper 4246.

member countries/territories, 80 adopted exchange rate targeting, 25 adopted monetary targeting, 45 adopted inflation-targeting and 43 adopted other monetary policy regimes.<sup>14</sup>

## CHALLENGES FOR ESTABLISHING CREDIBLE AND SUSTAINABLE NOMINAL ANCHORS

The issue of nominal anchor poses a challenge for central banks in developing countries. Through hard or soft peg arrangements, exchange rate targeting has been serving as a credible nominal anchor in many developing countries, particularly for the member countries of the Gulf Cooperation Council, the Western African Economic and Monetary Union, and the Central African Economic and Monetary Community. However, exchange rate targeting is not sustainable for countries that run chronic current account deficits. A deterioration in terms of trade or a sudden stoppage of foreign capital inflows can easily create substantial pressures for a devaluation of the national currency. The recent experience of Lebanon shows that the exit from a fixed exchange rate regime can be catastrophic. After experiencing a stable inflation condition with the

fixed exchange rate against the US dollar from 1997 to 2019, inflation expectations of Lebanese businesses and consumers are still linked to the exchange rate, which has sharply depreciated over the last 3 years. The Lebanese Pound (LBP) depreciated from LBP 1507/\$ in 2019 to LBP 38000/\$ in December 2022 (Sayrafa rate) while the inflation rate went above the 100 per cent mark in July 2020, peaked in January 2022 with 240 per cent, and still remain at 142 per cent as of November 2022. In the current situation, re-establishing a credible alternative nominal anchor is extremely difficult in Lebanon.

When exchange rate targeting is not sustainable, adopting a floating exchange rate regime with inflation targeting is often proposed as an alternative. However, anchoring inflation expectations with a depreciating exchange rate, which is often the case for a country with a chronically tight balance-of-payments condition, is highly challenging as inflation expectations persist, which can compound further inflationary pressures. As the US monetary policy stance is expected to remain tight throughout 2023 and the terms-of-trade shock from elevated international commodity prices persist, inflationary pressures from this channel for developing countries remain a concern.

<sup>14</sup> IMF (2022), Annual Report on Exchange Arrangements and Exchange Restrictions 2021. Table 4 (page 10). In the table, the United States and the European Economic and Monetary Union (EMU) are classified into the "Other" category despite both the Federal Reserve and the European Central Bank considered as "inflation targeting".