

# SBP Staff Notes

01/23

## Escape Clauses for Inflation Targeting Regime

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## 1. Introduction

This note reviews monetary policy frameworks of various inflation targeting central banks with a focus to understand various modes that introduce flexibility in inflation targeting (IT) regime. The IT central banks have adopted various approaches to introduce flexibility in the monetary policy framework including the explicit escape clauses, which explain the reasons for deviation of inflation from the target during an unexpected supply shock. The findings of this study suggest policy options for introducing flexibility in the inflation targeting framework and are relevant for countries in transition to adopt IT regime.

Inflation targeting central banks, strive to keep inflation around a pre-announced target. While maintaining price stability is a primary objective of inflation targeting regimes, this framework is applied in a flexible manner, where central banks may deviate from the inflation target to address risks arising from unanticipated supply shocks. This flexibility may be introduced through explicit escape clauses, as rigid adherence to inflation target during a sudden supply shock may give rise to high economic costs in the form of lost output and employment and may also have a destabilizing effect on inflation. Hence, escape clauses demonstrate flexibility and responsiveness of the central bank to unexpected events and also provide opportunity to improve communication between policy makers and the public about monetary policy goals and strategies. Consequently, it also strengthens the credibility of the central bank's commitment to price stability.

Our review identifies that out of forty inflation targeting central banks, six namely, New Zealand, Philippines, Czech Republic, South Africa, Armenia, and Romania have opted for including a set of explicit clauses in their monetary policy frameworks. Examples of some of these clauses include changes that directly affect prices, such as tax structures, volatility in oil prices, sudden changes in prices of agricultural commodities and products, and natural disasters affecting the major part of the economy.

On the flip side, the use of explicit escape clauses may entail limited benefits by overly complicating the monetary policy framework due to uncertainties involved in identification of supply shocks and their impact on inflation path. Despite intensive considerations, the challenges in identifying all events that may lead to deviation of inflation from its target, limit the effectiveness of this policy option. Furthermore, the adoption of flexible monetary policy regime by introducing escape clauses involves a tradeoff between flexibility and credibility. Thus, frequent recourse to escape clauses, and ambiguity about the set of circumstances to invoke escape clauses may weaken the credibility and transparency of a central bank. Especially, central banks in countries with high and volatile inflation already face challenges in establishing credibility, and the use of escape clauses can reinforce the perception that the central bank is unable to effectively control inflation through its standard policy measures. This may lead to de-anchoring of inflation expectations, making it even more challenging for the central bank to regain credibility and achieve inflation targets.

To address volatility created by supply shocks and to meet short-run stabilization objectives, central banks have introduced flexibility in monetary policy frameworks through various other means. For instance, most of the central banks announce inflation targets in ranges or tolerance bands for

medium-term' horizon. The medium-term nature of inflation targets implies that inflation may deviate from the target range in the face of unforeseen macroeconomic shocks. Second, the price index for the inflation target in some countries exclude categories bearing greater impact of supply shocks.

Our review indicates that twenty-seven IT central banks including New Zealand, Brazil, Thailand, and Australia have opted for defining inflation target in terms of ranges or tolerance bands around a mid-point (with a width of  $\pm 1$  percentage point or a wider band ranging from 1-2 percentage points) (**Annexure A**). Thirteen central banks (out of 40) including Czech Republic, UK, Japan and Chile have defined point inflation targets. Given the benefits associated with the flexibility, IT countries have predominantly (29 of total 40) opted for a medium term or greater than one year horizon for inflation target. Importantly, most of IT countries have introduced flexibility by adopting inflation target with range or a tolerance band and a medium term horizon (22 out of 40). Furthermore, price indices in four inflation targeting countries namely Norway, Sweden, Japan and Germany are modified to exclude the impact of supply shock and for other considerations. Uganda is the only country among 40 inflation targeting countries that targets core inflation.

The findings of this note are helpful for central banks contemplating to adopt IT framework, including Pakistan. For countries with track record of frequent shocks leading to high and volatile inflation, incorporating explicit escape clauses in the monetary policy framework is not a suitable policy option because of their undesired consequences in the form of weakened credibility and transparency. Furthermore, the uncertainties involved in the identification of explicit escape clauses are another important downside of this policy tool. Hence, the practice adopted by a large number of IT central banks i.e., to adopt a 'range inflation target' for 'medium term horizon', is a more effective mode to introduce flexibility in the monetary policy regime in the face of sudden shocks.

The note is structured as follows. Sections 2 discusses the importance of transparency and accountability for an IT central bank and provides salient features of accountability framework of IT countries. Section 3 defines explicit escape clauses and discusses importance of introducing flexibility in monetary policy framework of central banks in the face of exogenous shocks, Sections 4 discusses modes of introducing escape clauses in IT central banks in the recent episode of heightened inflation. Sections 5 discusses some downsides of adopting explicit escape clauses, which could undermine the central bank's performance to achieve price stability objective. Section 6 explores policy alternatives adopted by a number of IT central banks to introduce flexibility. The final section concludes the discussion.

## **2. Transparency and Accountability as Preconditions to Adopt Inflation Targeting**

Transparency is the linchpin of an inflation targeting framework. An autonomous central bank needs to have a well-defined framework to ensure transparency and accountability of its monetary policy operations. Transparency is perceived as a way for the private sector to assess the central bank's competence and its dedication towards the targeted inflation rate [Svensson (1998)]. A central banks' commitment and successful track record in achieving inflation target raises its credibility, making it easier for the bank to meet the target as the private sector's wage and price settings adapt to the target [Mahmud, Duke and Akinboyo (2021)].

The available literature related to inflation targeting framework puts greater emphasis on the principle of transparency and communication. For instance, Bernanke and Mishkin, F. S. (1997) argue that the inflation targeting regime offers greater transparency of monetary operations in such a way that the public information about monetary policy targets helps private sector in efficient business planning, and improves the accountability of central bank. Likewise, Heenan et al (2006) view transparency as a crucial means of enhancing central bank accountability to the public at large. The authors argue that in many countries, the central bank's reporting to the public on its policy decisions and actions goes far beyond what is formally required under the law or an inflation targeting agreement. These efforts not only play an important educational role, but are also geared towards establishing the central bank's accountability. Dincer and Eichengreen (2014) observe that the transparency of a central bank is a means of enhancing the credibility of its commitments. For instance, a commitment to achieve low and stable inflation will seem more convincing to the public when the central bank elaborates how and why its policies will produce the desired outcomes. The credible commitment, in turn, gives the central bank more leeway to deviate from the normal policy settings in case of an external shock, as the public will believe that the deviation is temporary and not inconsistent with the medium/long term pursuit of the monetary policy target. Therefore, transparency not only enhances the credibility of a central bank, but also provides policy flexibility.

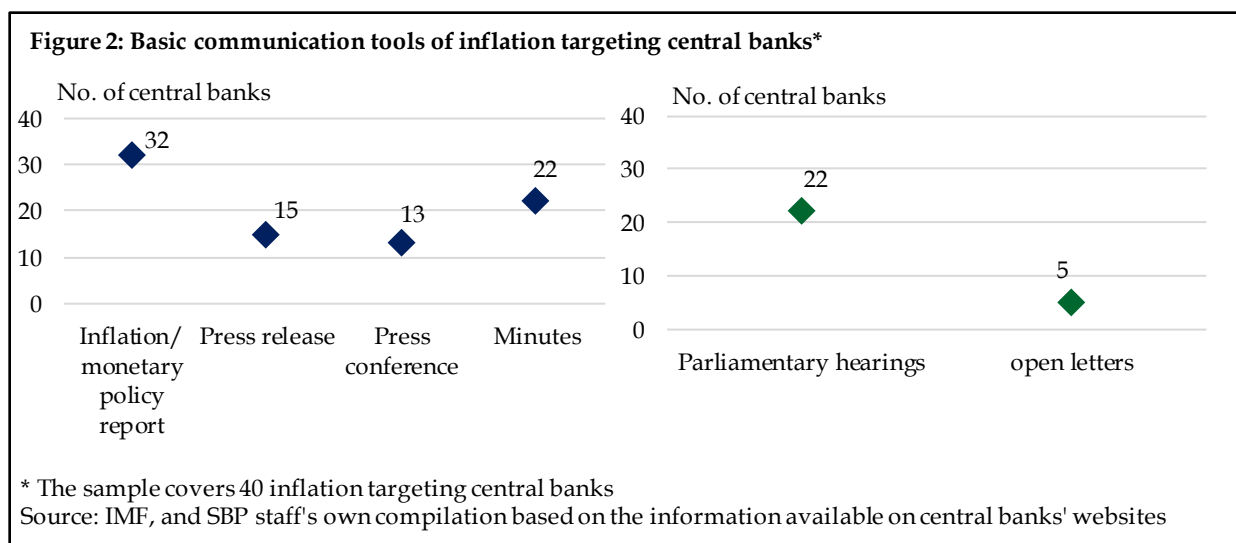
The monetary policy accountability framework varies across countries (**Figure 2 and Annexure B**). The main elements of this framework are given below [Heenan, Peter and Scott (2006)].

- a) Publishing regular monetary policy or inflation reports;
- b) Publishing open letters or special reports when targets are significantly missed;
- c) Using escape clauses to curtail the bank's accountability in pre-defined conditions, along with identifying policy actions to the specified shocks;
- d) Publication of minutes of policy meetings;
- e) Monitoring carried out by the legislature or executive;
- f) Monitoring carried out by the supervisory board;
- g) Dismissing the primary policy-makers<sup>1</sup> on missing the inflation target.

Through these channels, the IT central banks reinforce the contribution of policy decisions to achieve their primary goal, i.e., to ensure price stability. On the accountability front, senior central bank officials often make public appearances before parliamentary committees to supplement their communication tools, and may be asked to provide more information on key points of interest. Some of the inflation targeting countries fulfil accountability obligations through parliamentary hearings attended by the central bank governor or members of its decision-making body, such as Chile, New Zealand, and South Africa. Open letters explaining reasons for deviations from the inflation target are not as commonly used, with Brazil, Thailand, Turkiye, the United Kingdom and Philippines being the only examples. The tenure of the governor of the Reserve Bank in New Zealand is even linked to achieving inflation targets through the Reserve Bank of New Zealand Act.

<sup>1</sup> For instance, the governor of central bank, in case of New Zealand.

The IT framework also allows flexibility to a central bank to deviate from the inflation target during the event of a sudden shock that could alter the path of economic indicators. This flexibility may be introduced through explicit escape clauses, as discussed in the following section. Under these exceptional circumstances the accountability of central bank is curtailed to give precedence to stabilization objectives.



### 3. Escape Clauses

Some inflation targeting (IT) countries namely New Zealand, Philippines, Czech Republic, South Africa, Armenia, and Romania have included a set of explicit clauses in their monetary policy framework for exceptional circumstances which may lead to deviation of inflation from the target.<sup>2</sup> Escape clauses refer to events that are explicitly outlined in advance to justify deviations of current inflation levels from the target without eliciting a monetary policy response, since such a response aimed at mitigating shocks to prices is feared to have negative impact on other macroeconomic indicators [Hrncir, Smidkova (2000)]. In practice, escape clauses are provisions that allow a degree of flexibility to central banks in IT regimes, to temporarily deviate from their inflation targets in response to unexpected exogenous shock(s), without risking the reputational damage or untoward consequences for the economy [Eichengreen, Gupta and Choudhary (2021)]. In the case of extreme events, the central banks of Philippines and Armenia invoke explanation clauses<sup>3</sup> to explain the underlying causes of inflation deviation from the target in terms of pre-defined set of circumstances and the policy actions required to achieve the inflation target.

<sup>2</sup> It is based on the authors' detailed review and independent analyses of the central banks' monetary policy frameworks and inflation reports.

<sup>3</sup> Escape clauses stipulate exogenous shocks under which the inflation may deviate from its pre-defined target and the central banks are not obligated to take any monetary policy action. Whereas, in the case of explanation clauses, the central banks are required to explain the reasons for deviations along with the monetary policy response that will be taken to ensure that inflation returns to the target range and the time horizon over which this is expected to happen.

It is evident that the need for flexibility in an inflation targeting regime cannot be discounted. As is argued in Bernanke and Mishkin (1997), it mainly derives from the occurrence of exogenous shocks, particularly supply-side shocks such as a sudden rise in oil prices or a major supply disruption, that are completely or largely outside the purview of central bank monetary policy and result in pushing inflation forecasts outside the target range. In the face of these shocks, the rigid adherence to inflation target may lead to the following outcomes [Cizkowicz-Pekala et al (2019)]:

- i) A substantial volatility of economic indicators, including the exchange rate, interest rates as well as output and employment;
- ii) A potential instrument instability problem, where a narrow focus on keeping inflation at the target with no tolerance for temporary deviations, would compel the central bank to adjust interest rate very often with frequent changes to the direction of the adjustment.

Hence, with the flexibility provided through these clauses the central bank may temporarily shift its focus from achieving the strict inflation target to other objectives, such as promoting economic growth or financial stability during the occurrence of sudden shocks. In this regard, activating a set of relevant escape clauses is pivotal in allowing the central banks to exclusively concentrate on stabilization of the economy while briefly departing from the inflation target as not doing so could lead to unnecessary volatility in the economy and cause a high cost in terms of lost output and employment. Such an adjustment of the monetary policy stance can ultimately help in contributing towards greater macroeconomic stability in the longer term.

The specific process for invoking an escape clause may vary depending on the country or region, but it generally involves consultations between relevant authorities, careful analysis of economic data and forecasts, and a transparent communication strategy to ensure public confidence in the decision-making process. In the same vein, the central bank would have to identify the shock, explain the impact, detail its policy response and forecast the horizon for current inflation level to return to its officially announced target [Fridriksson (2000)].

Escape clauses offer public assurance by demonstrating the flexibility and responsiveness of the central bank to unexpected events. Tuladhar (2005) notes that escape clauses necessitate central banks to communicate more clearly and transparently about their monetary policy goals and strategies. This framework for openness and improved communication helps in cultivating market's confidence and increases public understanding of the role of central bank's monetary policy in stabilizing inflation. Consequently, it also strengthens the credibility of the central bank's commitment to price stability. This flexibility enhances their credibility by demonstrating the ability to adapt to changing economic conditions, which ultimately contributes towards the long-term commitment to the price stability objective. Furthermore, when an escape clause is invoked, central banks are required to provide clear explanations for their actions and the reasons behind their decisions. This transparency helps in building trust and credibility with the public. It is important to note, public confidence in central bank's commitment to achieve price stability objective is the key to success for any IT regime. In this context, the use of escape clauses requires careful communication by the central bank so that inflation expectations remain anchored.

Notwithstanding the benefits of escape clauses in terms of additional policy room for maneuver in times of crises, foreseeing and specifying all relevant escape clauses can be overly complicated [Eichengreen, Gupta and Choudhary (2021)]. Particularly, this may result in undermining the credibility of the central bank and deviate it from pressing macroeconomic issues towards the technicalities of the escape clause instead, as discussed in further detail in section 6 of the study.

#### **4. Cross-Country Experiences**

This section briefly discusses the monetary policy framework of inflation targeting central banks with explicit escape clauses, i.e., New Zealand, Philippines, Czech Republic, South Africa, Armenia and Romania. These central banks, have identified explicit escape clauses to account for the exogenous shocks, due to which, the actual inflation may deviate from the target temporarily. This section also summarizes recent experiences of these central banks during the episode of heightened inflation and also reviews the explanation provided by them for breach of inflation target in the recent episode of high inflation (**Annexure C**). With the exception of Philippines, none of these countries invoked an escape clause after the deviation of inflation from targets. However, Czech republic applies escape clause to the first round effect of indirect taxes, as these taxes cause only temporary effect on price level.

##### **4.1 New Zealand**

###### *Monetary Policy Framework*

The monetary policy at the Reserve Bank of New Zealand (RBNZ) is directed at achieving the dual economic objectives of price stability while supporting maximum sustainable employment. The current monetary policy objective requires the RBNZ to keep inflation between 1 - 3 percent, on average, over the medium term, with a focus on keeping future average inflation near the 2 percent target midpoint. In order to ensure that the RBNZ is pursuing to meet the inflation target, the governor of the central bank is subjected to a contract that entails his/her dismissal if the inflation exceeds three percent.

###### *Deviation from Inflation Target and Escape Clauses*

The monetary policy framework at the RBNZ contains some allowance for actual inflation to deviate from the set target. This is in the form of explicit 'caveats' or 'principal shocks' recognized as being outside the RBNZ's control. Caveats and escape clauses are meant to balance the Reserve Bank's inflation goal with other goals in the face of unexpected supply shocks.



In practice, the escape clauses for both price stability and sustainable employment refer to the exogenous shocks in response to which the Bank is required to react in a manner which prevents general inflationary pressures from emerging, that is, these escape clauses accommodate first-round effects on prices but do not allow the passing on of these prices to a second round. As discussed in the monetary policy handbook of the RBNZ, these shocks include but are not limited to: (i) significant changes in the terms of trade arising from an increase or decrease in either import or export prices, an increase or decrease in the rate of the goods and services tax (GST) or a significant change in other indirect taxes; (ii) a crisis such as a natural disaster or a major disease-induced fall in livestock numbers that is expected to have a significant impact on the price level; and (iii) a significant price-level impact arising from changes to government or local authority levies.

### *Recent Inflation Deviation Episode - RBNZ's experience with the Escape Clauses*

The RBNZ has noted inflation deviations from its target on multiple occasions throughout 2022, as mentioned in their monetary policy statements. In addition to adopting a contractionary policy stance, the central bank has explained the factors that may have resulted in the breach of their inflation target during the year, without having to invoke the escape clauses. In this regard, the Monetary Policy Statements during the year have outlined that in the wake of recent global supply shocks such as continued supply-chain bottlenecks post Covid-19 pandemic, commodity super cycle amid Russia-Ukraine conflict, high international oil prices and recent lockdowns in major Chinese cities leading to disruptions in the global production and trade, the inflation has increased considerably, from 5.9 percent in February 2022 to 7.2 percent in November 2022, thus, falling outside the MPC's inflation target band of 1 - 3 percent (**Figure 3**).

Additionally, the Monetary Policy Statements also mention some of the domestic factors that have resulted in pushing inflation outside the target range, including higher construction cost amid strong demand and shortages of labor and materials within New Zealand. The MPS of November 2022 notes that the softening of demand pressures through higher interest rates and an ease in supply-chain bottlenecks

are expected to support a slowdown in inflation and the annual CPI inflation is expected to return within the 1 - 3 percent target band in the second half of 2024.



## 4.2 Philippines

### *Monetary Policy Framework*

The primary objective of the Bangko Sentral ng Pilipinas (BSP) monetary policy is to promote price stability conducive to a balanced and sustainable growth of the economy. The adoption of inflation

targeting framework of monetary policy in January 2002 is aimed at achieving low and stable inflation, supportive of the economy's growth objective. This approach entails that the BSP commits to achieve the publicly announced inflation target set by the Government, over a two-year horizon. The government's inflation target is defined in terms of the average year-on-year change in the consumer price index (CPI) over the calendar year. The BSP makes the announcement of the inflation target two years in advance. Currently, the inflation target is set at 3.0 percent, +/- 1.0 percentage point for 2021-2024.

#### *Deviation from Inflation Target and Explanation Clauses*

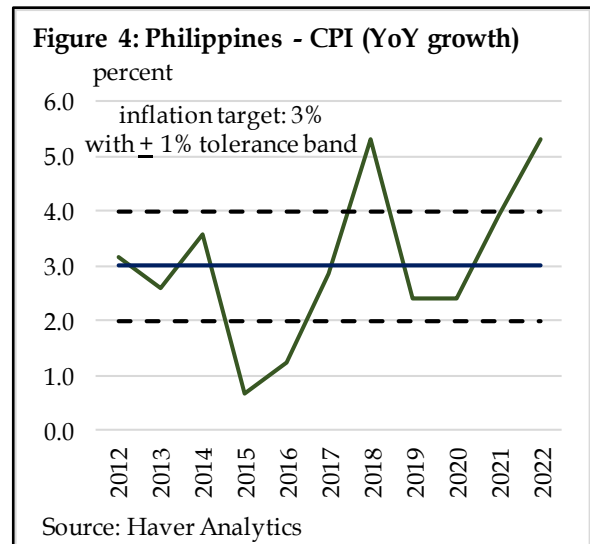
The BSP has identified explanation clauses for a set of extreme events which are beyond the control of the central bank and will limit the effectiveness of monetary policy. These include significant government policy changes that directly affect prices, such as tax structures, volatility in oil prices, sudden changes in prices of agricultural commodities and products, and natural disasters affecting the major part of the economy.

In applying explanation clauses, the BSP provides a full explanation to the public as to why the breach had occurred, what actions (or not) are being taken to bring inflation back within tolerance levels, when inflation is expected to be brought within range, as well as the path of inflation towards that range. Moreover the accountability mechanism of BSP also includes issuance of an open letter to the President in case of a breach of the inflation target.

#### *Inflation Deviation Episode - BSP's experience with the Explanation Clauses*

The BSP has invoked explanation clauses in 2021 and 2022 to offer explanation for deviations from the inflation target in the face of a confluence of global and domestic supply shocks. Hence, under the accountability requirements, the BSP issued open letters to the president in both January 2022 and 2023 which explained that the higher inflation outturns, 5.8 percent, against the set target of 3.0 percent, were primarily a consequence of elevated prices of global non-oil commodities, such as food, agricultural products and metals, continued shortages in domestic pork supply amid disrupted supply chains, and fare hikes due to higher crude oil prices amid concerns over tighter supply arising from Russia-Ukraine conflict (**Figure 4**). Meanwhile, robust pent-up demand after easing of Covid-19 restrictions have also contributed to the price pressures.

In addition, the open letters highlight the measures to be adopted to bring inflation back within the tolerance interval, and the time frame for these measures to take effect. This mechanism of transparent communication plays an important role in enhancing the public's understanding of the conduct of monetary policy, as well as in ensuring the BSP's accountability.



### 4.3 Czech Republic

#### *Monetary Policy Framework*

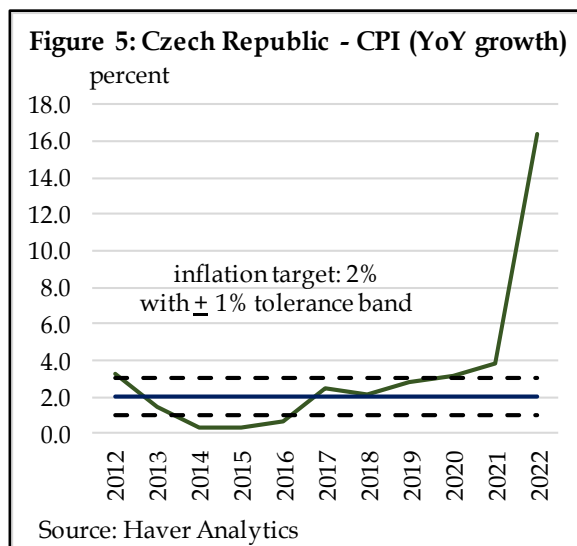
The primary objective of the monetary policy at the Czech National Bank (CNB) is to keep inflation low and stable and to create an environment conducive to the development of business activity and growth in household living standards. In maintaining price stability, the CNB uses inflation targeting and announces the inflation target as annual consumer price index (CPI) growth of 2 percent. It strives to ensure that the actual inflation does not differ from the target by more than one percentage point on either side. The CNB views its inflation target as a medium-term one where the actual inflation may deviate from the target temporarily as a result of exogenous shocks.

#### *Deviation from inflation Target and Escape Clauses*

The CNB has recognized a range of cases in which exceptions from achieving the inflation target may be applied. These "escape clauses" include: (i) major deviations in world prices of raw materials, energy-producing materials and other commodities; (ii) major deviations of the koruna's exchange rate that are not connected with domestic economic fundamentals and domestic monetary policy; (iii) major changes in the conditions for agricultural production having an impact on agricultural producer prices; (iv) natural disasters and other extraordinary events having cost and demand impacts on prices; (v) changes in regulated prices whose effects on headline inflation would exceed 1-1.5 percentage points; (vi) an increase in the lower VAT rate from 5 percent to 9 percent; and (vii) the introduction of environmental taxes and step changes in indirect taxes.

#### *Inflation Deviation Episode - CNB's experience with the Escape Clauses*

In the recent episode of deviation of inflation from target, CNB has not invoked escape clause and has adopted a contractionary policy stance to counter inflation. The Czech economy is facing a combination of exceptionally strong inflationary pressures causing escalating broad-based price growth. In the recent events during 2022, when consumer price index jumped to 18 percent in October 2022 from 10 percent in January 2022, exceeding the actual target of 2 percent by a wide margin, the central bank of Czech Republic explained the reasons for an unprecedented increase in prices of goods and services in terms of its escape clauses (**Figure 5**). The Monetary Policy Reports during the year have outlined that a range of domestic and foreign factors, including growing energy costs, high global agricultural commodity prices and domestic agricultural producer prices fostered a pick-up in inflation. In addition, the reports also specify that global supply chain disruptions, international transport bottlenecks and transnational environmental sustainability policies have also had a major contribution in surging inflation.



However, the Summer 2022 issue of the Monetary Policy Report indicates that the inflation will begin to fall back within the target range as supply chain disruptions dissipate, growth in production costs slackens, the purchasing power of households drops and the stabilizing effect of monetary policy manifests itself through domestic demand. The downward trend in inflation is expected to gain strength in the course of one year, whereby the inflation will decline close to the CNB's 2 percent target over the monetary policy horizon, which lies in the first half of 2024.

As mentioned in various Monetary Policy Reports of CNB, the central bank regularly invokes escape clause to the first round effect of indirect taxes such as VAT and FED. Since these taxes cause only temporary effect on price level corresponding to the tax rate, the first round effect of these taxes on inflation is omitted from 'Monetary Policy relevant' inflation, whenever required.

#### **4.4 South Africa**

##### *Monetary Policy Framework*

The South African Reserve Bank (SARB) implemented an inflation-targeting monetary policy in February of 2000; the framework focuses on using monetary policy tools (particularly controlling the short-term interest rates) in order to keep inflation within the predetermined band of 3 - 6 percent for headline CPI on a continuous basis. The target is set by the National Treasury of the country, in coordination with the SARB – this acts as the primary benchmark for measuring price stability. SARB has defined the inflation target as being continuous, flexible and forward-looking. Within flexibility, it has been deemed acceptable for there to be temporary deviations from the targeted range, as long as the inflation levels return to the target within a reasonable time period (estimated to be 1 to 2 years). The flexibility implies that policy need not offset price effects of shocks (such as increases in fuel prices) as long as they are transient in nature.

The SARB has aimed for greater transparency with a flexible IT regime. There are parliamentary hearings at least once a year where the Governor of the SARB appears before the parliament<sup>4</sup> to explain the monetary policy regime chosen by the MPC. The Governor is also obligated to submit an annual report to the Minister of Finance expounding the monetary policy implementation.

##### *Deviation from Inflation Target and Escape Clauses*

As discussed in the preceding section, SARB has identified a general clause by allowing flexibility in the face of transient shocks. In the event when SARB is unable to maintain the target, the bank provides a complete and public explanation for this failure via press conferences, parliamentary hearings, accountability reports, monetary policy forums and monetary policy reviews. The time period defined for the SARB to return to the targeted inflation rate is defined as continuous.

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<sup>4</sup> The Governor appears before the Select Committee on Finance.

### *Inflation Deviation Episode – SARB’s experience with the Escape Clauses*

In the current episode of breach of inflation target during 2022, the SARB has not deemed it appropriate to invoke the existing escape clauses and has instead opted to explain possible deviations from the inflation target (**Figure 6**). An example drawn from recent events is the COVID-19 crisis; in the Monetary Policy Review of October 2020, detailed explanations are given following the SARB’s decision to cut policy rates by 275 basis points. The document also mentions that under ‘normal circumstances’ monetary policy moves with increments but the global pandemic caused a deep and negative shock that reverberated worldwide, causing such sudden policy rate changes.

Recently, the outbreak of Russia-Ukraine conflict has triggered sticky inflation, slow economic growth and greater financial stability risks throughout the globe. Rising commodity prices globally had an effect on domestic prices in South Africa, as prices of fuel, food and electricity increased. Although there has been relative ease in food inflation and producer prices, the Russian conflict in Ukraine and the Chinese economic recovery process are bound to keep the international oil market tight. With factors such as load shedding, increased inflationary risks, and greater external financing requirements, the South African *rand* is expected to further weaken which may further aggravate imported inflation. Inflation expectations are also on an increasing trend.

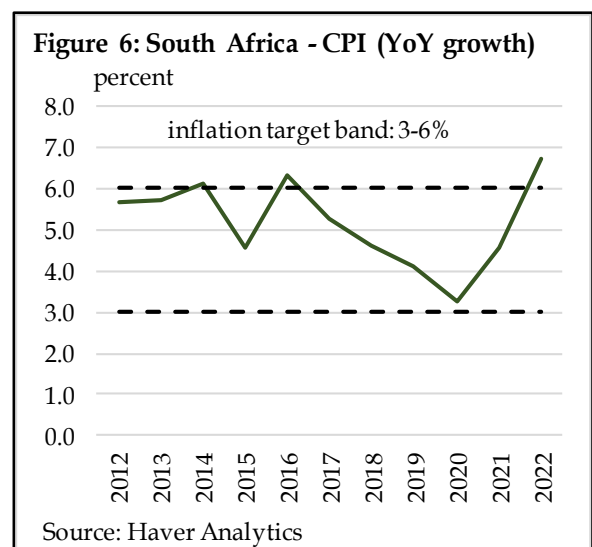
#### 4.5 Armenia

##### *Monetary Policy Framework*

The Central Bank of Armenia (CBA) adopted an inflation-targeting regime from January 1, 2006; the inflation target is defined to be an intermediate goal. The CBA first coordinates the targeted goal with the Armenian Government and is then approved by the National Assembly of Armenia. The current IT framework targets the headline inflation rate of 4 percent with a range of  $\pm 1.5$  percent. The CBA decides on the monetary policy with the aim of meeting the target within the next 12 quarters.

The CBA aims to maximize transparency in order to attain the public confidence. To ensure this is achieved, the central bank publishes multiple periodicals regarding the monetary policy’s implementation pace, payment and settlements, macro indicators and the activities of the CBA.<sup>5</sup> In addition to the publications, the CBA holds meetings (usually on a quarterly basis) with banks. The meetings are essentially called to disclose the monetary policy results of the past period and the planned directions for the coming period.

<sup>5</sup> Such forms of communication include press releases, summary minutes of the CBA board meetings, the CBA Statistical Bulletin, inflation reports, financial stability reports and the CBA annual report.



### *Deviation from Inflation Target and Explanation Clauses*

The CBA has outlined ‘exceptional circumstances’ during which the bank is not able to achieve its inflation target. If such circumstances occur, CBA provides explanation of the reasons of breach of its inflation target. The events are as follows: significant inconsistencies between the predicted and realized levels of international prices; considerable exchange rate changes due to exogenous shocks, which do not reflect economic fundamentals and monetary policy’s course ; substantial fluctuations in demand in the agricultural sector reflected in notable changes in agricultural products’ prices; and events classified as ‘force majeure.’

### *Inflation Deviation Episode – CBA’s experience with the Explanation Clauses*

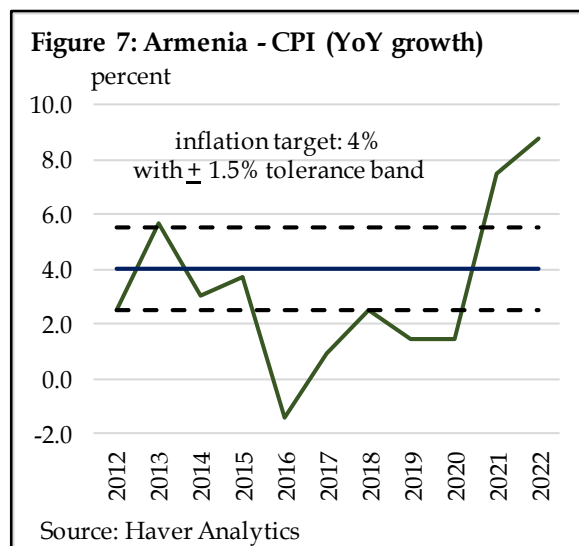
In its Monetary Policy report published in 2022, the CBA has outlined the high presiding inflationary pressures throughout CY-22 due to the escalating Russia-Ukraine conflict and the aftermath of the Covid pandemic. Collectively, these factors caused significant supply-chain disruptions reflected in global commodity prices (sharp rises in food and energy prices) and thus reverberated in the form of raised domestic prices in Armenia. Demand remained robust, especially so in the services sector which further tacked onto the already soaring inflation – however, the *dram* appreciated significantly during the period and therefore somewhat contained the inflation to a certain degree.

The inflation rose to 10.3 percent by the end of Q2-CY22, after which it began to decline due to the monetary tightening, reaching 8.3 percent by the end of the year (Figure 7). The report continues to highlight that the inflation shall continue to decline and will stabilize to the 4 percent target beginning from H2-CY23, largely on the back of a sustained monetary policy implementation.

## 4.6 Romania

### *Monetary Policy Framework*

The primary objective of the National Bank of Romania (NBR) is to ensure and maintain price stability. Furthermore, without prejudice to its primary objective, the National Bank of Romania supports the general economic policy of the Government. The NBR shifted to inflation targeting in August 2005. The target is set by the central bank in consultation with the government. Inflation targets are formulated in terms of the annual change in the Consumer Price Index (CPI) and are set as midpoints within a range of  $\pm 1$  percentage points. Since 2013, NBR adopted a flat multi-annual inflation target of 2.5 percent with a tolerance band of  $\pm 1$  percentage points, which is consistent with the medium-term price stability definition in the Romanian economy.



After adopting inflation targeting, NBR chose a new set of communication instruments for increasing the degree of the monetary policy transparency. The Inflation Report is the main communication tool of the central bank. Unlike most of other IT countries, Romania has neither any parliamentary hearings nor does the central bank write any open letter to the government, in case of target breach. Nonetheless, the NBR communicates to the public via its inflation reports the factors behind the breach of inflation target.

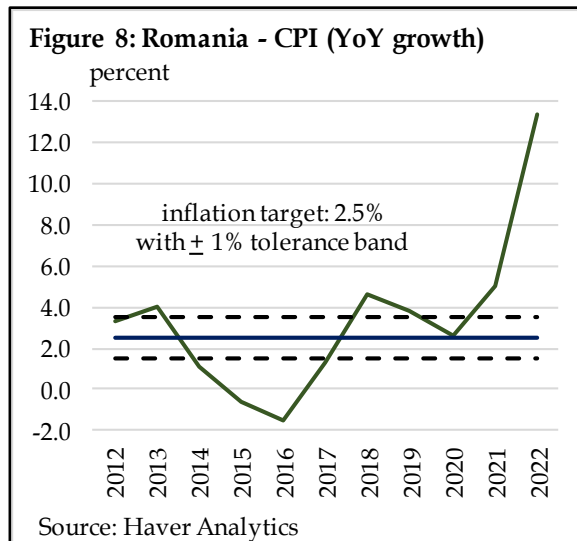
### *Deviation from Inflation Target and Escape Clauses*

The IT framework of NBR explicitly highlights a set of conditions that are beyond the control of monetary policy and therefore circumscribe the responsibility of the NBR for achieving the announced inflation targets. These circumstances include: (i) major hikes in world prices of raw materials, energy-producing materials and other commodities; (ii) natural disasters and other exceptional events that induce either supply (in terms of costs) or demand side impact on prices, as well as unpredictable changes in agricultural producer prices; (iii) large fluctuations of the exchange rate of the *leu* that are decoupled from domestic economic fundamentals as well as from the monetary policy pursued by the National Bank of Romania; (iv) major deviations from the administered price adjustment program announced by the Government, in terms of both magnitude and timing; and (v) divergence from the programmed fiscal and incomes policies, in terms of both implementation and final results.

### *Inflation Deviation Episodes – NBR's experience with the Escape Clauses*

The central bank justified the inflation target breaches in past two year with the commodity super cycle of 2021 and later with the outbreak of Russia-Ukraine conflict of early 2022. The annual CPI inflation started picking up, exceeding the upper bound of the variation band of the flat target. The inflation report of NBR for August 2021 ascribes this fast momentum to the rise in international commodity prices, which quickly passed through into volatile prices, mainly for fuels. At end-2021, the annual CPI inflation significantly exceeded the upper bound of the variation band of the target, climbing to a 10-year high of 8.19 percent (**Figure 8**). Bulk of increase was concentrated in the energy component of the consumer basket. The heightened tensions in the energy market, fed into prices of some alternative heating sources, such as firewood, affected consumer prices.

The annual CPI inflation continued the steep upward trend in 2022, mainly due to the hike in production costs, as a combined result of the energy crisis triggered in mid-2021 and the shock wave generated by the Russia-Ukraine war and the imposition of international sanctions on the commodities markets (primarily energy and agri-food). The war has fueled the supply-side bottlenecks already affecting several key global markets, in particular commodity markets.



Going forward, the NBR in its inflation report for February 2023 forecasted that the annual CPI inflation is expected to follow a steadily downward course with the start of 2023, keeping in view the extension and recalibration of electricity and natural gas price capping measures. The report also forecasts that the annual CPI inflation will drop to 7.0 percent in December 2023, and further to 4.2 percent in December 2024. However, the annual CPI inflation is expected to remain above the variation band of the target.

## 5. Explicit Escape Clauses – Some Downsides

Currently, out of forty inflation targeting countries only six have resorted to defining explicit escape clauses, which absolve the central bank of its responsibility of achieving inflation target in the event of a shock. A large number of the rest of the inflation targeting central banks have opted for implicitly identifying the circumstances during which the central bank may deviate from its target. This may be due to complexities involved in identifying the extreme events and their impact on inflation path. Furthermore while adoption of IT and flexibility introduced by employing escape clauses may enhance credibility of a central bank, the countries with high level of inflation may not benefit fully from this framework as it may contribute towards de-anchoring of inflation expectations and undermine the credibility of central banks. Some of these issues are discussed in the following.

***Uncertainty around identification of shocks:*** Supply shocks cause disturbances that alter production conditions in the economy [Calmfors, L. et al. (1997)]. Examples of some supply shocks include a large unexpected increase in global energy prices, supply shock for food products, outbreak of wars, and natural catastrophes. In this regard, an important issue is the inability of a central bank to identify all such extreme events in which a central bank may temporarily deviate from the inflation target [Schaechter, A., Stone, M. R., and Zelmer, M. (2000)]. The ambiguity surrounding the identification and occurrence of such shocks may weaken the central banks' ability to meet the defined inflation target. This is because the economic agents may doubt central banks' commitment to achieve inflation target even in normal circumstances. This is because the central bank may also misuse this discretion to provide economic stimulus in the fashion of time-inconsistency problem [Mihov, I., and Sibert, A. (2004), Athey, Atkeson and Kehoe (2005)].

***Too frequent recourse to escape clauses may undermining central bank credibility:*** The adoption of flexible monetary policy regime by introducing escape clauses involves a tradeoff between flexibility and credibility. Frequent recourse to escape clauses, and ambiguity about the set of circumstances to invoke escape clauses weaken credibility and transparency of a central bank [Schaechter, A., Stone, M. R., and Zelmer, M. (2000)]. Especially as argued by Mishkin and Hebbel (2001) central banks in countries with inflation higher than the long-term level have low credibility. .

***Weakening transparency of central bank monetary policy conduct:*** The use of escape clauses provides flexibility to a central bank to give consideration to output and employment objectives, especially when the economy is hit with a sudden supply shock. However, the central bank may also use these



escape clauses as a shield to hide its policy mistakes, which may compromise the transparency and accountability of the central bank [Labonte and Mekinen (2007)].

***Compromising central bank independence.*** In some setups, escape clauses allow the government to override central banks in time of extreme events to ensure timely policy response for stabilization of the economy. However, under such clauses the government may encroach on the independence of central banks under the pretext of extreme events, which may dent the credibility of a central bank.

***Limited benefits of escape clauses.*** Hennis, Peter and Scott (2006) argue that during the episode of a sudden supply shock, a central bank will have to formulate its monetary policy response after the identification of the shock and understanding its impact and will prepare the inflation forecast. Furthermore, as Mishkin and Hebbel (2001) argue, escape clauses cannot cover deviation of inflation target caused by exogenous demand shocks. As including escape clauses for demand shocks may destroy central bank credibility. Hence, explicit escape clauses will lead to an overly legalistic environment and will divert away the attention of the policy makers from underlying macroeconomic issues towards technical details.

## 6. Policy Alternatives

As the preceding section discussed, the use of explicit escape clauses is likely to entail limited benefits by overly complicating the monetary policy framework. Escape clause may be considered as a long-term policy option. Credibility assumes center stage for achieving inflation objective of a central bank, in an inflation targeting regime. Calmfors et al. (1997) argue that the central banks should aim at establishing credibility for a low inflation policy in the short-term. Once, the consumers pose trust in central bank's commitment with its price stability objective, the monetary policy framework may be revised to consider adaptation of explicit escape clause in the long-term.

To address volatility created by supply shocks and to meet short-run stabilization objectives, central banks have introduced flexibility in monetary policy framework through various means. A large number of inflation targeting countries have employed alternatives, such as explanations in inflation reports, changing the definition of target price index, and range of inflation targets [Cizkowicz-Pekala et al (2019), Bernanke and Mishkin (1997)]. Some of these policy alternatives are discussed in the following (**Annexure C**).

***General clauses:*** To avoid the complexities associated with identification and implementation of specific escape clause in the monetary policy framework, the literature suggested the use of a general clause. For instance, in the case of UK the Governor of central bank may communicate to the government the reason of missing inflation target in case of sudden shocks, which is tantamount to an implicit understanding of temporarily suspending inflation target in case of extreme events [Masson and Shukayev (2008)].

*Defining inflation target range or tolerance band.* Another option is to target inflation range or a tolerance band instead of identifying a point target. Dennis (1997) argues that identifying inflation target range with some caveats is a better option than a framework with a point target containing a large number of escape clauses. This design is expected to anchor inflation expectations in a better way, as the point target is more likely to be missed because of both extraneous circumstances as well as policy failures. Too frequent misses of inflation target will weaken the credibility of central bank and may also de-anchor inflation expectations. However, a broad target range may also have same weaknesses because of doubts about central bank commitment with inflation target [Schaechter, A., Stone, M. R., and Zelmer, M. (2000)].

In view of the enhanced flexibility offered by a target range, a number of IT countries have defined inflation targets in terms of bands and ranges as discussed in the following.

- A number of (27 out of 40) IT countries have opted for defining tolerance bands around a mid-point – out of these, 11 countries which include Indonesia, Romania, Philippine, Peru, Ukraine and Mexico have opted for a narrow  $\pm 1$  percentage point tolerance band, whereas remaining have a wider band ranging from 1-2 percentage points (**Figure 9a**);
- There are 6 countries including Australia, Canada and New Zealand which have defined inflation ranges between 1-2 percentage points. A few have defined a wider range of 3 percentage points including South Africa, Uruguay and Uganda, India being an exception with an even broader range of 4 percentage points;
- A large number of countries (13 out of 40) including Czech Republic, UK, Japan and Chile have defined point targets.
- Most of the countries have inflation target close to 2 percent. However there are exceptions, for instance, Turkiye with 5 percent, Ukraine at 5 percent with  $\pm 1$  percentage point tolerance band and Ghana at 8 percent with  $\pm 2$  percentage point tolerance band.

*Adopting medium term inflation target.* Tosato (2022) notes that a point target is an effective anchor of inflation expectations, however, it grossly limits flexibility of a central bank to respond to shocks. On the other hand, while a target range provides flexibility, it's a rather weak anchor of consumer expectations of inflation. Hence, a point target with a relatively long time horizon will have better anchoring properties, which are required for success of an IT regime. The point target will enhance credibility of the central bank, while a wider range of target horizon provides adequate ambiguity needed to address sudden shocks.

Bernanke and Mishkin (1997) and Mishkin (2001) also supported adoption of a wider time horizon as this provides required flexibility, without undermining credibility. Given the lag involved in the transmission of monetary policy signals to inflation, defining a narrow range of inflation target with a short horizon will entail the risk of frequent failures of central bank in achieving the inflation target. This may also lead to excessive volatility in monetary policy instruments while the central bank attempts to meet the inflation target, which may cause fluctuation in output. However, in the case of emerging economies transitioning from very high to low inflation, choice of a wider target horizon

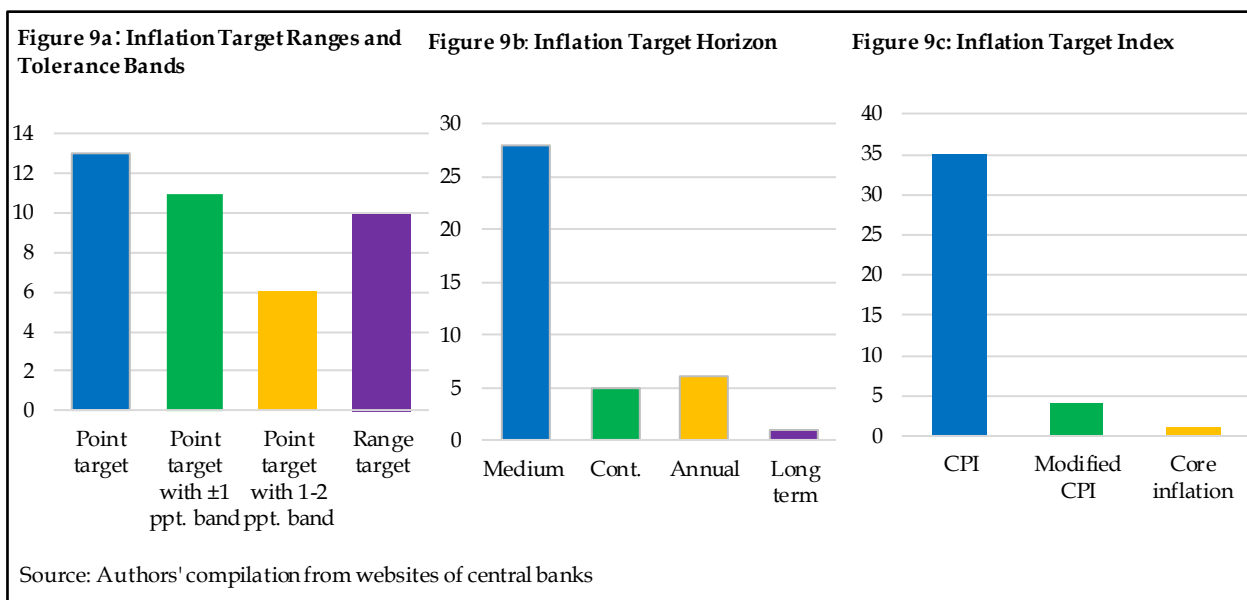
may weaken the credibility of a central bank, because of doubts about the central banks' commitment with inflation target. Here a policy alternative could be defining a multi-year path for inflation target.

Given the benefits associated with the flexibility, IT countries have predominantly (29 of total 40 IT countries) opted for a medium term or greater than one year horizon for inflation target (**Figure 9b**). Importantly, most of IT countries have introduced flexibility by adopting inflation target with range or a tolerance band and a medium term horizon (22 out of 40). However, some of the countries with medium term horizon including Czech Republic, Turkiye, Albania and South Korea recourse to point inflation target. Similarly, some countries with point inflation targets including Russia and Japan have defined point inflation targets with annual horizon.

**Modified price index.** Price indices in four inflation targeting countries namely Norway, Sweden, Japan and Germany are modified to exclude the impact of supply shock and for other considerations (**Figure 9c**). Uganda is the only country among 40 inflation targeting countries that targets core inflation.

## 7. Conclusion

Inflation targeting framework provides constrained discretion to policy makers to deviate from inflation target in the event of unforeseen supply shocks or changes in government policies, which are outside the ambit of the central bank. In these circumstances, any policy efforts by the central bank to keep inflation within target is likely to cause undesired fluctuation in output and employment. Central banks have applied this discretion through various means. Six out of forty central banks namely New Zealand, Philippines, Czech Republic, South Africa, Armenia, and Romania have identified explicit clauses, which circumscribe the central bank of its responsibility to achieve inflation target during the extreme events.



The literature suggests that frequent application of escape clauses, and ambiguity about the set of circumstances to invoke these clauses undermine the credibility and transparency of a central bank. Lack of credibility of a central bank may un-anchor inflation expectations and hamper the ability of a central bank to achieve price stability objective. Furthermore, as indicated in the literature, the central banks may also misuse this discretion to provide economic stimulus and to hide its policy mistakes, which may compromise the transparency and accountability of the central bank. Given the uncertainties involved in identifying the extreme events and their impact on inflation path, and concerns regarding the impact of escape clauses on credibility and transparency of the central bank, a large number of inflation targeting countries have employed alternatives to introduce flexibility in monetary policy frameworks, such as explanation in inflation reports, changing the definition of target price index, and target range and horizon.

The findings of this note are relevant for central banks in transition to IT regime, including Pakistan. For countries with track record of high and volatile inflation, incorporating explicit escape clauses in the monetary policy framework is not a suitable policy option. This is because adoption of escape clauses may undermine the ability of central banks to garner public confidence for their commitment with price stability objective. Furthermore, the uncertainties involved in the identification of explicit escape clauses, and their undesired consequences in the form of weakened credibility and transparency may also hamper central banks' ability to achieve price stability objective. Hence, the practice adopted by a large number of IT central banks i.e., to adopt a range inflation target for medium term horizon, is a more effective mode to introduce flexibility in the monetary policy regime in the face of sudden shocks.

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## 9. Annexures

## Annexure - A

Table 1: Basic Communication Tools of IT Central Banks					
Inflation/ monetary policy report	Press release	Press conference	Minutes	Parliamentary hearings	Open letters
Albania	Albania	Armenia	Armenia	Albania	Brazil
Armenia	Armenia	Brazil	Australia	Armenia	Philippines
Australia	Chile	Czech Republic	Brazil	Australia	Thailand
Brazil	Georgia	Ghana	Chile	Canada	Turkiye
Chile	Ghana	Indonesia	Czech Republic	Chile	UK
Czech Republic	Hungary	Philippines	Georgia	Czech Republic	-
Georgia	Indonesia	Romania	Hungary	Georgia	-
Ghana	Kazakhstan	Russia	India	Hungary	-
Hungary	Mexico	South Africa	Japan	Indonesia	-
India	Moldova	South Korea	Mexico	Japan	-
Indonesia	Romania	Sri Lanka	Moldova	Moldova	-
Japan	Russia	Ukraine	New Zealand	New Zealand	-
Kazakhstan	Serbia	-	Norway	Norway	-
Mexico	Sri Lanka	-	Philippines	Philippines	-
Moldova	Sweden	-	Poland	Poland	-
New Zealand	Peru	-	Romania	Russia	-
Norway	-	-	South Korea	South Africa	-
Peru	-	-	Sweden	South Korea	-
Philippines	-	-	Thailand	Sweden	-
Poland	-	-	Turkiye	Turkiye	-
Romania	-	-	UK	UK	-
Russia	-	-	Ukraine	-	-
Russia	-	-	-	-	-

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Serbia	-	-	-	-	-
South Africa	-	-	-	-	-
South Korea	-	-	-	-	-
Sri Lanka	-	-	-	-	-
Sweden	-	-	-	-	-
Thailand	-	-	-	-	-
Turkiye	-	-	-	-	-
UK	-	-	-	-	-
Ukraine	-	-	-	-	-

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Source: Central banks' websites, and IMF AREAER database

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## Annexure - B

Table 2: Point Target Countries

Country	Adoption of IT	Current IT	Current Target Horizon	Choice of Price Index
Czech Republic	1998	2 percent	Medium-term	CPI-Headline
UK	1992	2 percent	At all times	CPI-Headline
Germany	1995	2 percent	Medium-term	Harmonized Index of Consumer Prices
Japan	2013	2 percent	Annual	CPI (all items less fresh food)
South Korea	2001	2 percent	Medium-term	CPI-Headline
Norway	2001	~2 percent	Annual	CPI (adjusted for tax changes and excluding energy products - CPI-ATE)
Sweden	1993	~2 percent	Annual	CPIF (consumer price index with a fixed interest rate)
Iceland	2001	2.5 percent	Annual	CPI-Headline
Chile	1999	3 percent	2 years	CPI-Headline
Albania	2009	3 percent	Medium-term	CPI-Headline
Georgia	2009	3 percent	Long-term	CPI-Headline
Russia	2015	4 percent	Annual	CPI-Headline
Turkiye	2006	5 percent	Medium-term	CPI-Headline

Source: Central banks' websites, and IMF AREAER database

Table 3: Point Target (with  $\pm 1$  Percentage Point Tolerance Band) Countries

Country	Adoption of IT	Current IT	Current Target Horizon	Choice of Price Index
Romania	2005	2.5 percent, $\pm 1$ percentage point	2 years	CPI-Headline
Poland	2005	2.5 percent, $\pm 1$ percentage point	Medium-term	CPI-Headline
Peru	2002	2.5 percent, $\pm 1$ percentage point	Continuous	CPI-Headline
Indonesia	2005	3 percent, $\pm 1$ percentage point	3 years	CPI-Headline
Mexico	2001	3 percent, $\pm 1$ percentage point	Annual	CPI-Headline
Hungary	2001	3 percent, $\pm 1$ percentage point	Medium-term	CPI-Headline
Colombia	1999	3 percent, $\pm 1$ percentage point	Indefinite period	CPI-Headline
Philippines	2002	3 percent, $\pm 1$ percentage point	2 years	CPI-Headline
Guatemala	2005	4 percent, $\pm 1$ percentage point	Medium-term	CPI-Headline
Dominican Rep.	2012	4 percent, $\pm 1$ percentage point	2 years	CPI-Headline
Ukraine	2015	5 percent, $\pm 1$ percentage point	Medium-term	CPI-Headline

Source: Central banks' websites, and IMF AREAER database

**Table 4: Point Target (with 1-2 Percentage Points Tolerance Band) Countries**

Country	Adoption of IT	Current IT	Current Target Horizon	Choice of Price Index
New Zealand	Late 1980s/1990s	1-3 percent	Medium-term	CPI-Headline
Canada	1991	1-3 percent	6 to 8 quarters	CPI-Headline
Thailand	2000	1-3 percent	Medium-term and annual	CPI-Headline
Australia	1993	2-3 percent	Medium-term	CPI-Headline
Kazakhstan	2015	4-6 percent	Medium-term	CPI-Headline
Sri Lanka	2015	4-6 percent	Medium-term	CPI-Headline

Source: Central banks' websites, and IMF AREAER database

**Table 5: Range Target Countries**

Country	Adoption of IT	Current IT	Current Target Horizon	Choice of Price Index
India	2015	2-6 percent	Indefinite period	CPI-Headline
Serbia	2006	3 percent, $\pm 1.5$ percentage points	Medium-term	CPI-Headline
Uruguay	2005	3-6 percent (center target of 5 percent)	2 years	CPI-Headline
South Africa	2000	3-6 percent	Continuous	CPI-Headline
Armenia	2006	4 percent, $\pm 1.5$ percentage points	Upcoming 12 quarters	CPI-Headline
Paraguay	2011	4 percent, $\pm 2$ percentage points	Medium-term	CPI-Headline
Brazil	1999	4.5 percent, $\pm 2$ percentage points	3 years	CPI-Headline
Moldova	2010	5 percent, $\pm 1.5$ percentage points	Medium-term	CPI-Headline
Uganda	2011	5 percent, $\pm 3$ percentage points	Medium-term	Core inflation
Ghana	2007	8 percent, $\pm 2$ percentage points	Medium-term	CPI-Headline

Source: Central banks' websites, and IMF AREAER database

## Annexure - C

S.No.	Country	Lower Bound	Upper Bound / Point Target	Point Target	Inflation Rate in 2022	S.No.	Country	Lower Bound	Upper Bound / Point Target	Point Target	Inflation Rate in 2022
1	Albania	-	-	3	6.7	21	Moldova	3.5	6.5	5	28.7
2	Armenia	2.5	5.5	4	8.8	22	New Zealand	1	3	-	6.3
3	Australia	2	3	-	6.5	23	Norway	-	-	~2	4.7
4	Brazil	2.5	6.5	4.5	9.4	24	Paraguay	2	6	4	9.8
5	Canada	1	3	-	6.9	25	Peru	1.5	3.5	2.5	7.9
6	Chile	-	-	3	11.6	26	Philippines	2	4	3	5.3
7	Colombia	2	4	3	10.2	27	Poland*	1.5	3.5	2.5	5.2
8	Czech Republic	-	-	2	16.3	28	Romania	1.5	3.5	2.5	13.3
9	Dominican Rep.*	3	5	4	8.2	29	Russia	-	-	4	13.8
10	Georgia	-	-	3	11.9	30	Serbia*	1.5	4.5	3	4.1
11	Germany	-	-	2	7.7	31	South Africa	3	6	-	6.7
12	Ghana	6	10	8	31.9	32	South Korea	-	-	2	5.1
13	Guatemala	3	5	4	6.9	33	Sri Lanka	4	6	-	48.2
14	Hungary*	2	4	3	5.1	34	Sweden	-	-	~2	7.7
15	Iceland	-	-	2.5	8.0	35	Thailand	1	3	-	6.1
16	India	2	6	-	6.9	36	Turkiye	-	-	5	73.1
17	Indonesia	2	4	3	4.2	37	Uganda	2	8	5	7.2
18	Japan	-	-	2	2.0	38	UK	-	-	2	7.5
19	Kazakhstan†	4	6	-	N/A	39	Ukraine	4	6	5	20.2
20	Mexico	2	4	3	7.9	40	Uruguay	3	6	5	9.1

Source: Central banks' websites, and IMF AREAER database