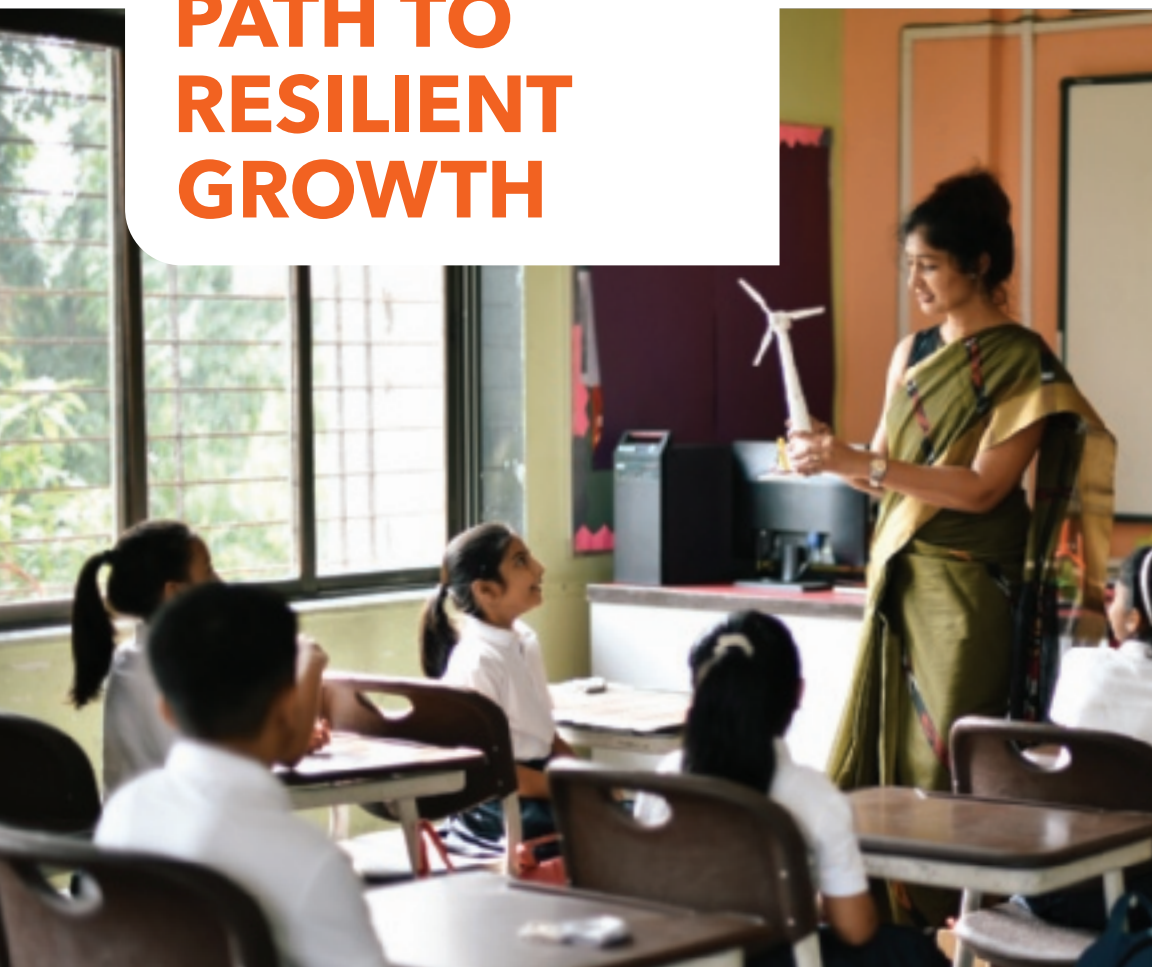


---

INTERNATIONAL MONETARY FUND

# SOUTH ASIA'S PATH TO RESILIENT GROWTH



**Editors**

**RANIL SALGADO**

**RAHUL ANAND**

# On Modernizing Monetary Policy Frameworks in South Asia

Chetan Ghate and Faisal Ahmed

*South Asia, a region with diverse economies, has significant variation in its monetary policy frameworks, ranging from monetary targeting to flexible inflation targeting. This chapter provides an overview of the monetary policy frameworks in South Asia, including the flexible inflation targeting regime in India and Sri Lanka and the ongoing upgrades in frameworks in other South Asian economies, with implications for monetary policy credibility that can help the economies better cope with various shocks. As observed before and during the COVID-19 pandemic in advanced and developing economies, monetary policy plays a critical role in macroeconomic management. The chapter highlights the intra-regional lessons and important considerations going forward, building on the lessons from the flexible inflation targeting adoption in India, as other South Asian economies continue modernizing their monetary policy frameworks.*

## INTRODUCTION

A broad consensus exists that the primary goal of monetary policy is to maintain price stability, with annual inflation in the low and single digits.<sup>1</sup> In practical terms, central banks implement price stability through one of three operational frameworks: inflation targeting, monetary targeting, and exchange rate targeting. Of these three, inflation targeting has seen increasing adoption around the world, first in New Zealand in 1989, then in a growing number of advanced and emerging economies. Several key attributes of inflation targeting—policy independence, an explicit target for inflation, transparency, and accountability—can help boost monetary policy credibility and have been widely recognized for their contribution to price stability (Schmidt-Hebel and Carrasco 2016; Walsh 2015; Kamber, Karagedikli, and Smith 2015).

South Asia's monetary policy frameworks are diverse, ranging from exchange rate targeting (Nepal, Bhutan, and Maldives) and broad monetary targeting

---

Contributions from Stephan Ide, Md. Hossain Imam, and Nimarjit Singh are gratefully acknowledged.

<sup>1</sup> For related literature, see Bernanke and others 1999; Mishkin and Schmidt-Hebbel 2001; Batini 2004; and Batini and Laxton 2006.

(Bangladesh) to flexible inflation targeting in India and Sri Lanka. The monetary policy anchor both in Bhutan and Nepal is the peg with the Indian Rupee. Although both India and Sri Lanka have implemented flexible inflation targeting (FIT), India's experience has been longer and can serve as an example of a formal adoption of FIT with some intra-regional lessons, especially for the larger economies in the region as they are going through middle-income transitions.<sup>2</sup>

Although widely adopted, inflation targeting has not won universal acceptance, especially in the context of emerging market and developing economies (EMDEs). In addition to their mandate of price stability, central banks are often held responsible for a range of outcomes, varying from unemployment, financial stability, exchange rates, current account deficits, and more recently, income inequality, making them policy makers of last resort (Davig and Gurkayanak 2015). In EMDEs that are at early stages of development, the preference for policies that generate high growth might perceive the adoption of inflation targeting as a constraint on supporting employment and growth.<sup>3</sup>

Exchange rate flexibility under inflation targeting is an additional policy consideration for EMDEs since imported inflation can affect monetary policy outcomes. For EMDEs, large volatility of capital flows amid rising financial integration can amplify risks and vulnerability to crises. Many EMDE central banks therefore build up foreign exchange reserves to serve as external buffers. That said, the policy challenge to EMDE central banks remains in the context of determining the degree and timing of any foreign exchange intervention to smooth out excessive volatilities. Risk-off capital outflows can result in sharp nominal and real depreciation amid sticky prices, which, in turn, can have undesirable effects, including on inflation. This highlights the challenges many EMDEs face in protecting domestic policy independence, with implications for capital flows and macroeconomic management.

This chapter takes stock of the monetary policy frameworks in South Asia, with a special focus on the Indian experience with flexible inflation targeting (FIT) since the adoption of the Monetary Policy Framework in March 2015. In the runup to the adoption of FIT, inflation in India was high (above 6 percent for more than 40 months through mid-2014), accompanied by large current account deficits (4.8 percent in FY2012/13) and exchange rate pressures, with market analysts' focus on reserve adequacy amid macro stability concerns from high inflation and current account pressures. During the July-September Taper Tantrum of 2013, the Indian Rupee depreciated by around 20 percent and economic growth moderated.

Amid a growing recognition that the multiple indicator approach to monetary policy in India had certain limitations and drawing upon the recommendations of an expert committee (RBI 2014), the Reserve Bank of India (RBI) implemented a systems-change in the conduct of monetary policy to deal with high and persistent

<sup>2</sup> Flexible inflation targeting means monetary policy aims at stabilizing both inflation around the inflation target and the real economy, whereas strict inflation targeting focuses on stabilizing inflation only.

<sup>3</sup> Furthermore, Schmidt-Hebbel and Carrasco (2016) showed that, based on a sample of advanced economies and EMDEs, there has not been significant change in macroeconomic performance, as measured by the first and second moments in output and inflation.

inflation. The RBI became a flexible inflation targeter with the headline consumer price index as the nominal anchor for the economy.<sup>4</sup> The full institutional architecture was laid out in a Monetary Policy Framework Agreement between the RBI and the Government of India in 2015 that set a medium-term inflation target of  $4\pm 2$  percent, with the mid-point of the band to be achieved by the end of FY2017/18, as it was.

Aided by the flexible inflation targeting regime, during 2015–19, consumer price index headline inflation in India averaged 4.2 percent, but a food price shock in late 2019 and the supply disruptions during the pandemic led to higher food and overall inflation in 2020 and 2021. Inflation pressures have remained persistent with rising core inflation from supply disruptions and higher input costs in recent months (August 2021). Taking a longer view, recent RBI and IMF research have found that the adoption of FIT has been accompanied by better anchoring of inflation expectations (Blagrove and Lian 2020; Asnani and others 2021; RBI 2021).

Some of the lessons from the implementation of FIT in India are relevant for the larger South Asian economies such as Bangladesh and Sri Lanka that are working on upgrading their monetary policy frameworks. Some of the challenges associated with monetary policy implementation and transmission stem from the depth and soundness of the financial system (for example, the level of nonperforming assets in the banking system, liquidity forecasting and management, and bond market development) and have broader resonance among the economies in the region.

## COSTS AND BENEFITS OF INFLATION TARGETING

Inflation targeting is a monetary policy framework with price stability as its main goal. This goal is reflected in a unique numerical target in the form of a level or range for annual inflation. While the main goal of inflation targeting is price stability, output and (possibly) financial stability are often included as part of the mandate.<sup>5</sup> The inflation forecast serves as the intermediate target of policy (Svensson 1997). Under inflation targeting, the inflation target is pursued by a monetary authority endowed with operational and instrumental independence. According to a 2019 Bank for International Settlements study, there were 36 countries that were operating a full-fledged inflation targeting regime (Agénor and Silva 2019).

There is a voluminous literature on the benefits and costs of inflation targeting.<sup>6</sup> In terms of the benefits, inflation targeting can help build central bank credibility

<sup>4</sup> Most emerging market countries use headline inflation as the target, reflecting the role food and fuel inflation play in the formation of inflation expectations, and the ease of communication.

<sup>5</sup> Two early EMDE adopters of inflation targeting were Thailand and Chile. The Bank of Thailand adopted inflation targeting in 2000, and originally had an explicit legal objective of financial stability. Chile adopted inflation targeting in 1999.

<sup>6</sup> See Batini and Laxton (2006) and Schmidt-Hebel and Carrasco (2016) for a detailed discussion of the costs and benefits of inflation targeting in advanced economies and EMDEs.

as the target provides transparency and commitment about the central bank's policy objective. This makes a central bank time consistent and allows economic agents to better understand and evaluate the performance of the central bank leading to a more durable anchoring of inflationary expectations. To achieve the goal, the central bank must make consistent efforts in attaining the inflation target to establish a reputational equilibrium between the central bank and agents in the economy.

Inflation targeting can also provide some flexibility by targeting inflation over the medium term. Deviations from the target don't necessarily imply a loss in credibility if inflationary expectations are anchored around the target.<sup>7</sup> Schmidt-Hebbel and Carrasco (2016) showed that inflation targeting has led to a better anchoring of inflationary expectations in EMDEs. They also suggested that inflation targeting, by lowering output costs, leads to better inflation-output trade-offs compared with alternative frameworks. Using the framework of Cecchetti and Ehrmann (1999), they showed that monetary policy efficiency, defined as the inflation-output variability frontier, has significantly improved (that is, shifted inwards) after the adoption of inflation targeting. They also showed that inflation targeting has significantly reduced long-term inflation rates both relative to their own non-inflation targeting history, as well as to non-inflation targeting EMDEs.

In terms of costs, inflation targeting is seen as offering limited discretion which can constrain growth. Countries in South Asia that are at the early stages of development might have a preference for high growth and thus view the adoption of inflation targeting as a constraint.<sup>8</sup> Batini and Laxton (2006) listed four broad categories for the successful implementation of inflation targeting: central bank institutional independence, central bank technical infrastructure, economic structure, and financial system development and health. They show, however, that for several adopting EMEs, the previously mentioned preconditions were satisfied in part or to a limited degree. IMF (2006) also noted that the importance of these preconditions is often over-stated. Schmidt-Hebbel and Carrasco (2016) suggested that many countries—especially EMDEs—have adopted inflation targeting at an early stage in their development. Some adopted partial inflation targeting without giving up their exchange rate anchor (for example, Chile, Columbia, and Israel) and for several years had both exchange rate bands and inflation targets in place.

## **FLEXIBLE INFLATION TARGETING: THE INDIAN EXPERIENCE**

Drawing upon the recommendations of the Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework (RBI 2014), the RBI implemented a systems-change in the conduct of monetary policy to deal

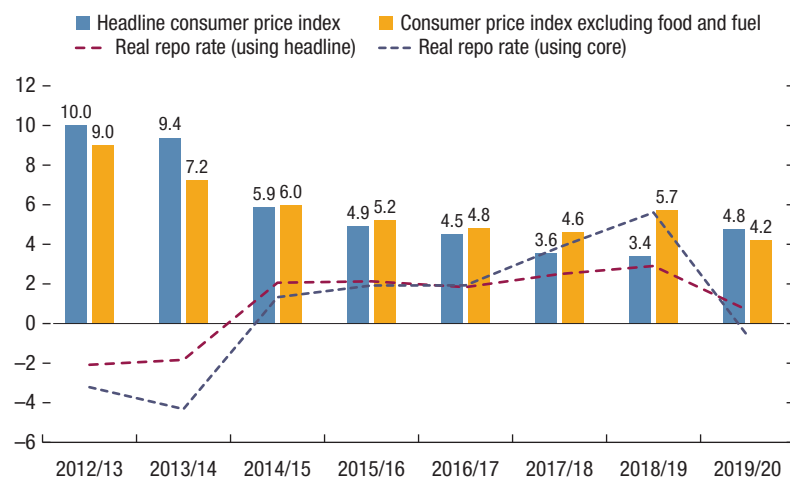
<sup>7</sup> In operational terms, it is often challenging to identify whether private agents view deviations as temporary errors, or as a change in how policy will be set in the future.

<sup>8</sup> This view remains relatively popular in some of the South Asian countries. When growth falls, the dominant consensus is that the central bank can take a risk on inflation and should not be an inflation targeter during a low growth period.

with high and persistent inflation. The RBI became a flexible inflation targeter with the headline consumer price index as the nominal anchor for the economy.

Several institutional changes were implemented for the FIT framework. Starting in 2014, a bimonthly policy review cycle was implemented with bi-annual (October and April) monetary policy reports (MPRs) from September 2014. The Monetary Policy Framework Agreement signed between the RBI and the government of India in March 2015 required the RBI to set out in the public domain the operating procedure of monetary policy which was fulfilled in the April 2015 monetary policy report (Patra and others 2016).<sup>9</sup> A glide path of two years was adopted, considering a lag in the monetary transmission mechanism of around 6–8 quarters. Aided by the adoption of the FIT and disinflationary shocks to fuel and food prices, inflation moderated, with average headline inflation in 2014–15 declining to 5.8 percent (down from, on average, 10 percent during 2012–13 and 9.4 percent during 2013–14) and remaining within the RBI's target band of 2–6 percent till January 2020 (Figures 12.1 and 12.2), when the food price shock in late 2019 and the COVID-19–related supply disruptions during 2020 and 2021 led to elevated inflationary pressures. It should be noted that since the signing of the Monetary Policy Framework Agreement until January 2020, inflation crossed 6 percent on only a handful of occasions.

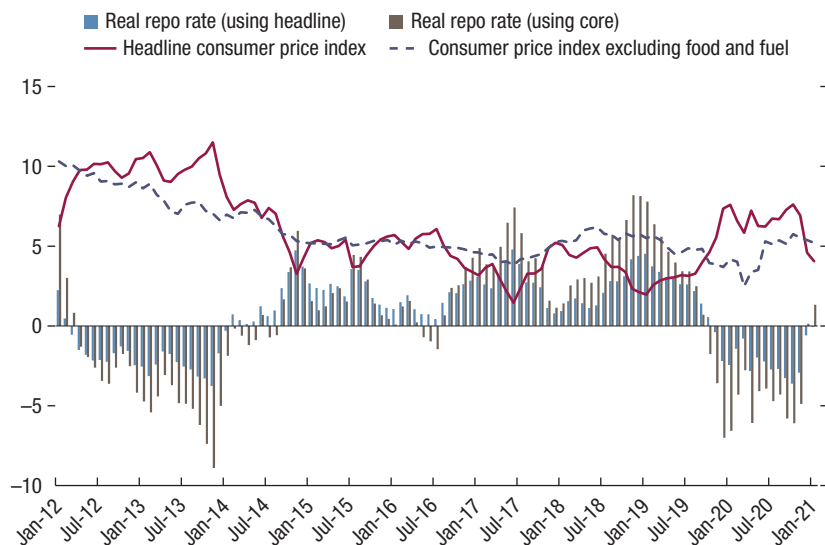
**Figure 12.1. Inflation and Real Repo Rate in India**  
(Percent change, year on year, annual average)



Sources: Haver Analytics, and IMF staff calculations.

<sup>9</sup> While high inflation amid low growth had created a disquiet, politically, the adoption of inflation targeting in India was helped by the fact that the aversion to inflation laid the foundation for a broad-based policy commitment in terms of lower inflation.

**Figure 12.2. Inflation and Real Repo Rate in India**  
*(Percent change, year on year, monthly)*



Sources: Haver Analytics; and IMF staff calculations.

Looking back, it is instructive to understand the reasons behind the persistent high inflation after the global financial crisis of 2007–09 and constraints to monetary policy implementation.

First, sizeable fiscal deficits contributed to demand pressures, which might have supported growth but also led to some overheating. The center's fiscal deficit continued to remain large even after the global financial crisis shock, with the overall (state plus central) fiscal deficit at around 7 percent of GDP in 2013–14, an increase from around 4 percent during 2007–08. Part of the increase in the deficit reflected public sector salary increases associated with the 6th Pay Commission in 2005 and higher food subsidies.

Second, the Government of India's price support program with a minimum support price (MSP) of key agricultural commodities and a large open-ended procurement of agricultural commodities contributed to inflationary pressures. As noted by Ghate and Kletzer (2016) and Ghate, Gupta, and Mallick (2018), government policies and food procurement shocks had effectively placed a rising floor on food and wages leading to food inflation and a wage–price spiral with rising wage expectations as rural wages are effectively indexed to food inflation.<sup>10</sup> During 2007–13, rural agriculture and nonagricultural wages in India rose by 17

<sup>10</sup> There are years, however, when amid a marginal increase in MSP, favorable production from a good monsoon and a decline in global commodity prices, food inflation moderated as in 2017.

and 10 percent, respectively. The transmission of food inflation into nominal wages was almost immediate.<sup>11</sup>

Third, on the monetary policy front, the real policy rate was below the neutral rate for several years in the aftermath of the global financial crisis, amid rising inflation (Rajan 2016). Both short- and long-term inflation expectations increased sharply amid strong aggregate demand.<sup>12</sup> A further complicating factor was that before the implementation of inflation targeting in India, monetary policy was guided by a multiple indicator approach with no clearly defined nominal anchor. Instead, growth, price stability, and financial stability were targeted with relative weights depending on prevailing economic conditions (Cristadoro and Veronese 2011). As pointed out by Mohan (2009), price stability was an important but not an exclusive goal of monetary policy in India. As noted by the expert committee (RBI 2014), a loss of credibility arises from high inflation especially in a framework with a multiple indicator approach.<sup>13</sup> The lack of a clearly defined nominal anchor foments time inconsistency in policy implementation.

Fourth, financial repression accompanied by fiscal dominance had accompanied Indian monetary policy for decades. Despite the phasing out of the RBI's participation in the primary issuance of government securities, open market operations were continually employed to manage yields in the face of large government borrowings.<sup>14</sup> Despite some moderation during 2014–18, the overall fiscal balance remained elevated at more than 6 percent of GDP, before gradually increasing to more than 7 percent of GDP in 2019 and crossing 11 percent of GDP, amid the pandemic shock. As in many other countries, the postpandemic increase in fiscal deficits and debt raises the risks of financial repression, especially if growth remains tepid.

Fifth, monetary transmission, especially through the bank lending channel, remained limited, reflecting the level of nonperforming assets and the impact of small savings on the deposit rates and thus the lending rates.<sup>15</sup> The Expert Committee (RBI 2014) highlighted several other structural factors that hinder monetary transmission in India such as the presence of a large informal sector, and

<sup>11</sup> It should also be noted that in India, typically, there is a sharp increase in inflation in the summer months, followed by a moderation around November. Given the large weight (45.9 percent) of food in headline inflation, large swings in specific components of the food basket leads to forecast errors.

<sup>12</sup> See Cristadoro and Veronese (2011) for an excellent discussion of Indian monetary policy before the implementation of FIT.

<sup>13</sup> The multiple indicator approach contradicts the classic Tinbergen principle, that is, that central banks should have an equal number of instruments under their control to effectively direct policy toward each target.

<sup>14</sup> While RBI has stopped subscribing in the primary market, the monetary implications of subscribing in the secondary market are equivalent. That said, direct monetization of deficit could potentially raise concerns about the central bank independence.

<sup>15</sup> In recent years, the small savings rate (national savings certificates, provident funds, and so on) have reflected some adjustments in line with the movements in the government securities' yields.

financial repression through a statutory liquidity ratio (SLR).<sup>16</sup> The SLR was viewed as distorting the term structure of the interest rate for the benefit of the government, constituting a form of financial repression. Before inflation targeting in India, banks often held excess SLR because of “lazy banking,” where banks park liquidity in risk-free assets. If a bank had excess SLR, then the RBI had to provide banks with liquidity leading to unlimited accommodation. The liquidity adjustment facility had become a permanent monetary injection and had created a disjunction between interest rates and monetary aggregates.

## EVOLUTION OF MONETARY POLICY FRAMEWORKS IN SOUTH ASIA

The diversity in monetary policy frameworks in South Asia is large: three countries (Nepal, Bhutan, and Maldives) follow exchange rate targeting; Bangladesh follows broad monetary targeting; and India formally adopted FIT in 2015 with Sri Lanka following in 2020 (Table 12.1).<sup>17</sup> Given South Asia’s level of economic and financial sector development, central banks in the region have focused on the necessary upgrades to increase monetary policy effectiveness in line with their framework as the diverse economies (Figures 12.3 and 12.4) and financial sectors in the region undergo structural changes.

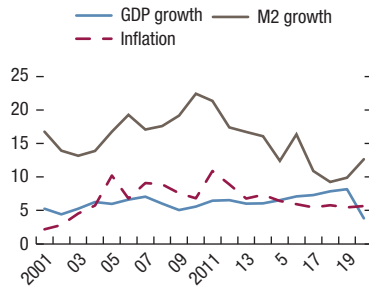
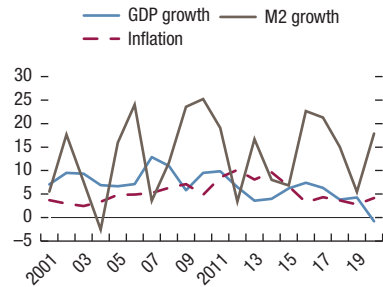
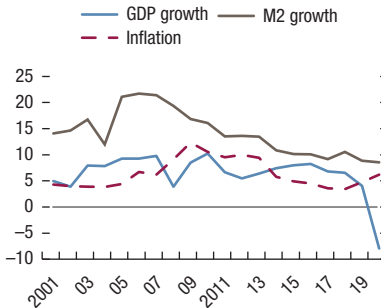
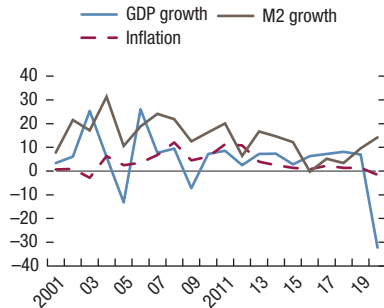
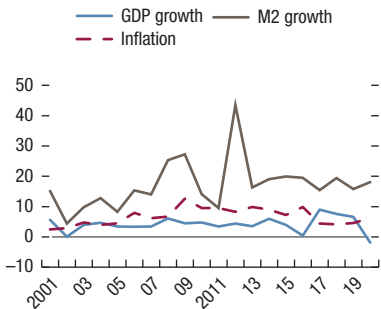
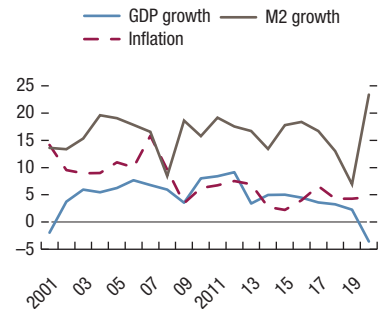
TABLE 12.1.

| Monetary Policy Frameworks in South Asia |                              |                               |
|------------------------------------------|------------------------------|-------------------------------|
| Country                                  | Monetary Policy Regime       | De Facto Exchange Rate Regime |
| Bangladesh                               | Monetary targeting           | Stabilized arrangement        |
| Bhutan                                   | Exchange rate targeting      | Conventional peg              |
| India                                    | Flexible inflation targeting | Flexible                      |
| Maldives                                 | Exchange rate targeting      | Stabilized arrangement        |
| Nepal                                    | Exchange rate targeting      | conventional peg              |
| Sri Lanka                                | Flexible inflation targeting | Floating                      |

IMF (2015) identified key building blocks for lower and middle-income countries to establish effective monetary policy frameworks. A central bank should have a clear mandate in terms of its goals with price stability as the primary or overriding objective of monetary policy over the medium term. Important first steps are developing forward-looking and interest-rate-focused frameworks aligned with the central bank’s capacities and the country’s macro-financial

<sup>16</sup> Recent RBI reforms including external benchmarking amid ample systemic liquidity during the recent easing cycle have improved transmission through the bank-lending channel.

<sup>17</sup> One challenge with money and exchange rate targets is that money targets are hard to control because of shifts in money demand and the multiplier, which require periodic resets. Furthermore, central bank control over the exchange rate may be limited because the level of the exchange rate is determined by the international demand and supply of domestic currency versus the anchor currency. Shifts in sentiment about the domestic currency can trigger abrupt changes in relative values that cannot be offset by central bank actions. See IMF (2005, WEO).

**Figure 12.3. Growth, Money, and Inflation in South Asia****1. Bangladesh: Selected Indicators, 2001–20****2. Bhutan: Selected Indicators, 2001–20****3. India: Selected Indicators, 2001–20****4. Maldives: Selected Indicators, 2001–20****5. Nepal: Selected Indicators, 2001–20****6. Sri Lanka: Selected Indicators, 2001–20**

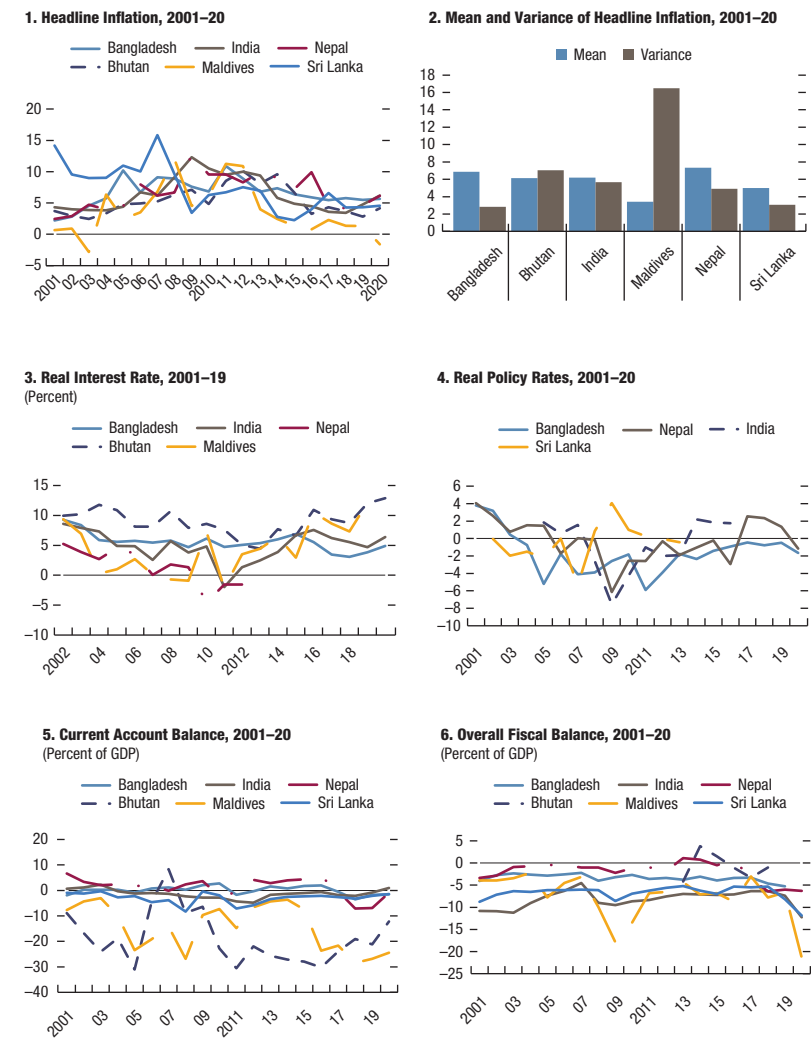
Sources: Haver Analytics; and IMF staff calculations.

Note: M2 = broad money.

development.<sup>18</sup> This will allow transmission of the announced central bank policy stance to bank financing and financial market conditions. Across the region, it will be key to reduce fiscal dominance, especially in the context of higher debt during the postpandemic recovery, increase central bank operational independence, and create greater reliance on market-based procedures.

<sup>18</sup> See Laurens and others (2015). See also Banerjee and others (2020) for a dynamic stochastic general equilibrium model with banking sector frictions calibrated to India.

Figure 12.4. Inflation, Policy Rate, and Fiscal Balances in South Asia



Sources: Haver Analytics; and IMF staff calculations.

## BANGLADESH

Monetary policy in Bangladesh aims at maintaining price stability and ensuring growth. The dual mandate responds to the challenge in a developing country to expand output through productivity growth, in a context where low inflation alone may not suffice to reach poverty and output growth targets. Bangladesh Bank formulates its monetary program in the context of a monetary targeting regime. Bangladesh Bank actions aim at steering M2 growth while it uses judgment when deciding on the policy stance. While the de jure exchange rate arrangement is classified as floating, the de-facto exchange rate arrangement is

classified as stabilized, effective February 2020, with interventions in the spot markets to limit volatility of the exchange rate against the US dollar.

As Bangladesh's deepening trade and financial integration continues, the current monetary targeting regime with a reserve monetary operational target to ensure price stability needs to be recalibrated. As noted in the monetary policy statements before the pandemic, the Bangladesh Bank expressed its interest in moving toward introducing an interest rate operational target within a flexible monetary targeting regime. In this framework, monetary aggregates remain an important input in the forward-looking decision-making process to determine the appropriate policy stance as they continue to contain useful information on current economic conditions, the nature of the shocks, and forward-looking information about future inflation.

The increasing focus on the interest rate as the operational target of the monetary policy framework would benefit from the removal of the existing impediments to the monetary transmission mechanism stemming from the pricing of the National Savings Certificates, the recent introduction of bank lending and deposit interest rate caps, and the already-elevated nonperforming loans, even before the pandemic. The distortions from the National Savings Certificates need to be moderated to deepen further the government bond market and improve monetary transmission.

## BHUTAN

The monetary policy anchor in Bhutan is the exchange rate in relation to the Indian rupee. Since its introduction in 1974, the ngultrum has been pegged to the Indian rupee at par. Given close economic ties with India, the exchange rate peg to the Indian rupee has served Bhutan well as a nominal anchor. For liquidity management, the Royal Monetary Authority (RMA) currently relies on administrative tools to implement monetary policy, such as the cash reserve ratio and the daily sweeping of government-related accounts (account of the government and hydro-projects related accounts) held in the commercial banks to the RMA.

For the peg to the India Rupee to be sustainable and credible, trend inflation in Bhutan cannot deviate significantly from trend inflation in India once differences in trend productivity growth are taken into account. Recent IMF research has found strong co-movement in headline inflation between India and countries in South Asia because of food-price inflation, but co-movement in core inflation much weaker (Blagrove 2019). This suggests that domestic factors largely shape core inflation in Bhutan. Given the degree of capital flows, the RMA has some policy space to deviate from the RBI's policy rate. The RMA in recent years has placed strong emphasis on liquidity management to support the peg regime as it can help steer short-term interest rates close to the desired policy stance. Bhutan has also focused on developing the government bond market, with the recent issuances of longer-term bonds.

## MALDIVES

The monetary policy anchor in Maldives is a peg in relation to the US dollar with an open capital account. Fiscal dominance poses challenges for monetary policy

credibility and the exchange rate regime, as previously reflected by the emergence of a parallel foreign exchange market, with a spread to the official market exchange rate and a related multiple currency practice, as the authorities have rationed foreign exchange supply because of low international reserves. The high level of dollarization has complicated monetary policy and financial intermediation in local currency.

The authorities' plan of implementing a broad range of reforms to monetary and exchange rate policies based on their Strategic Plan was delayed with the outbreak of the COVID-19 pandemic and the consequent central bank financing of fiscal deficit. The Strategic Plan aims to (1) strengthen the monetary policy and operational framework, including defining an interest rate corridor and directing short-term interbank interest rates inside it; (2) develop two-sided functioning foreign exchange markets; and (3) review the current exchange rate regime to maintain exchange rate stability and implement a strategy for partial and gradual de-dollarization and foreign exchange reserve accumulation. For an open economy as Maldives with a diversified set of trading partners, shifting the exchange rate target to a composite basket peg from the current peg to the US dollar is currently being considered.

## NEPAL

The exchange rate peg to the Indian rupee (one Indian rupee to per 1.6 Nepalese rupee) has served as a transparent nominal anchor for monetary policy. The peg continues to benefit Nepal in view of its close economic relationship with India and the need to build policy implementation capacity. The Nepal Rastra Bank (NRB) Act 2002 does not assign price stability as the primary goal of monetary policy. From that perspective, the monetary policy framework does not provide explicit guidance on how to prioritize policy actions in the event of a conflict among policy objectives (price stability, external sector stability, and output growth). In pursuing these objectives, the NRB uses monetary and credit aggregates as information variables, and banks' excess reserves as an operating target. To curb risk-taking behavior caused by the low real interest rates, the NRB in the past relied on macroprudential measures.

Given the close trade integration (with around 70 percent of Nepalese imports coming from India) and the exchange rate regime, co-movements of headline inflation in India and Nepal remain high (around 0.70). The RBI's inflation target ( $4 \pm 2$  percent) has implications for the NRB's monetary policy conduct. In presence of the exchange rate regime, the medium-term inflation objective needs some alignment with India's. A wider target band than in India can afford monetary policy the flexibility to deal with shocks, particularly during the transition to a fully market-based liquidity management framework.

In late 2017, the NRB introduced an interest rate corridor for guiding short-term interbank rates. Standing liquidity facility rate and one-week deposit collection rate serve as the upper and lower limits of the corridors. The effectiveness of the interest rate corridor in stabilizing short-term money market rates is dependent on effective NRB liquidity forecasting and a commitment to stabilize liquidity conditions, with overnight repo rate as the main policy rate. This commitment

needs to be underpinned by sufficient operational independence since attempts to save costs by only periodically draining excess liquidity are damaging to the economy and central bank credibility.

## SRI LANKA

Among the South Asia countries, Sri Lanka also committed to modernizing its monetary policy framework. The Central Bank of Sri Lanka has communicated that its monetary policy framework follows FIT, aimed at stabilizing inflation at mid single-digit levels over the medium-term while supporting economic growth to reach its potential. The key elements of the framework include price stability as a mandate of the central bank (along with the mandates of economic stability and financial system stability), a market-oriented approach toward the exchange rate policy, and strengthening the autonomy, governance, and accountability frameworks of the Central Bank of Sri Lanka.

Following several decades of high inflation and exchange rate volatility (from the 1970s through 2000s), inflation has been in single digits for over a decade now, with inflation expectations aided by the central bank's commitment and communication. Sri Lanka could further consolidate its progress made toward the FIT by allowing greater exchange rate flexibility, supporting domestic debt market developments, and safeguarding the central bank's operational autonomy.

At present, the central bank conducts monetary policy under the FIT. Under the FIT framework, the central bank expects to rely mostly on market-based instruments, policy interest rates, and open market operations to guide the average weighted call money rate, which is considered as the operating target, as it was previously under the enhanced monetary policy framework before the adoption of the FIT. To support the forward-looking nature of the framework, macroeconomic projections, including inflation projections, are being strengthened, as reflected in the publication of the inflation fan charts since 2020.<sup>19</sup> The central bank has also prioritized improving its communications strategy, in support of the current FIT framework, including by communicating the overall monetary policy direction for the forthcoming year announced at the Road Map during the first week of each year, followed by eight monetary policy announcements that take place throughout the year.

## SOME CONSIDERATIONS FOR MONETARY POLICY FRAMEWORK UPGRADES

As mentioned in the introduction, Batini and Laxton (2006) list four broad categories for the successful implementation of inflation targeting: central bank institutional independence, central bank technical infrastructure, economic

---

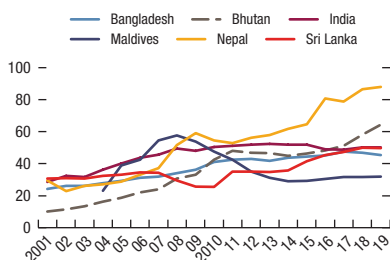
<sup>19</sup> This effort has involved developing a structural model-based Forecasting and Policy Analysis System, including with IMF technical assistance, to strengthen the monetary policy decision making process and to support Sri Lanka's transition to FIT.

structure, and financial system development and health. These preconditions are also supportive of the evolutions of monetary policy frameworks in select South Asian economies, as they upgrade their frameworks (for example, Bangladesh, Sri Lanka) and the increased effectiveness of monetary policy implementation under the current regimes.

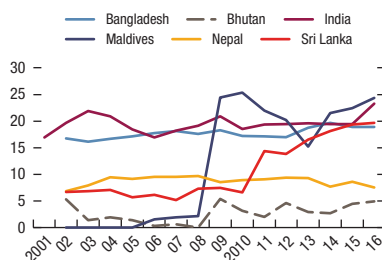
Financial markets in South Asia (excluding India) are at early stages of development and face various forms of market development constraints (Figure 12.5). For

**Figure 12.5. Financial Development in South Asia**

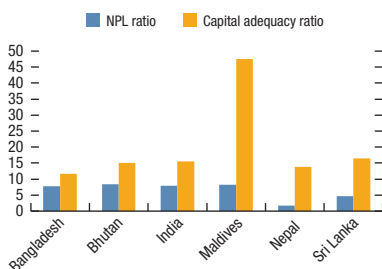
**1. Domestic Credit to Private Sector, 2001–19**  
(Percent of GDP)



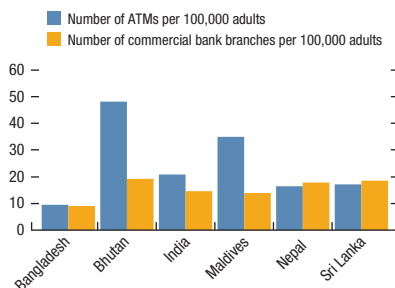
**2. Depository Corporations' Claims on Government Securities, 2001–16**  
(Percent of GDP)



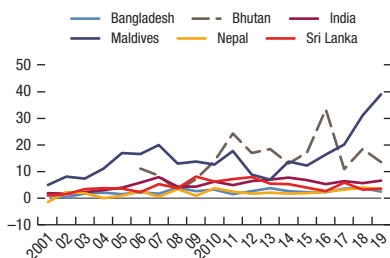
**3. Financial Soundness Indicators, Latest Available**



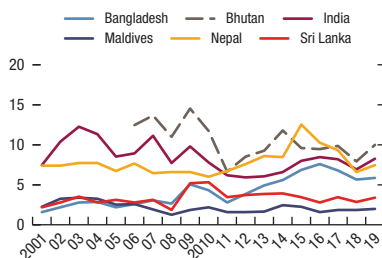
**4. Financial Depth and Access, Latest Available**



**5. Gross Capital Inflows, 2001–19**  
(Percent of GDP)



**6. Reserves in Months of Imports, 2001–19**



Source: Haver analytics; and IMF staff calculations.

example, Bhutan had its first issuance of a government bond in 2020. Bond markets remain relatively small in Bangladesh, constrained by the higher risk-free interest in national savings certificates. Given the level of national savings, there is significant scope for market development in these economies, if accompanied by market-based pricing of government securities and continued liberalization (for example, the removal of cap on interest and deposit rates in Bangladesh).

The experience of India, with its relatively larger and more development financial system and a longer track reform of FIT, is instructive for other countries with regards to the increasing degrees of liberalization that supported market development. In the 1970s and 1980s, the focus of financial sector reform in India was on directed credit and to widen the spread of the financial sector. In the 1990s, there was a recognition that the gains from liberalization in the real sector depended on reforms in the financial sector. This led to the dismantling of administered/structured interest rates, the introduction of new prudential norms (such as capital adequacy norms), and the recapitalization of public sector banks. After 2008, reforms have assumed a new connotation with a greater emphasis on regulation.

What would be some lessons from India and recommendations for countries in South Asia who want to upgrade their monetary policy frameworks, including by adopting inflation targeting?

First, there needs to be broad-based recognition and commitment that inflation adversely impacts the economy and the well-being of many. Bringing inflation down in a significant and durable manner requires a rule-based monetary policy that can improve transparency and predictability, while minimizing discretion and time inconsistency.<sup>20</sup> Equally important is the process of monetary policy design and implementation that takes into consideration the latest economic activity and capacity, as done under FIT. At present, all RBI Monetary Policy Committee deliberations feature data from a variety of surveys conducted by the RBI on the Indian economy, which are incorporated in the projections of growth and inflation by the RBI.<sup>21</sup> One challenge that many central banks—both in advanced and developing countries—face is the estimation of variables such as the output gap, highlighting the need for improving macroeconomic data.

Second, there needs to be a common understanding and acceptance about the nominal anchor. During the multiple indicator approach in India, there was lack of clarity on the inflation measure that was being targeted or the degree of

<sup>20</sup> After the high inflation episode in India from 2010 to 2013, the RBI maintained a positive real policy interest rate, which signaled a commitment to reducing inflation.

<sup>21</sup> Results from the following surveys in Monetary Policy Committee deliberations are routinely included: Outlook of the Private Corporate Sector, Enterprise Surveys, a Consumer Confidence Survey, Inflation Expectations Surveys of Households, Survey of Professional Forecasters, Developments in the Housing Sector, Global Macroeconomic Developments, Developments in India's External Sector, and Monetary Policy Transmission. The inflation and growth projections are done by Department of Statistics Information and Management, the Department of Economic Policy Research, and the Monetary Policy Department, with contributions from the Strategic Research Unit. A Forecasting and Policy Analysis System model is estimated and calibrated to generate the balance of risks.

commitment by the central bank. Elevated inflation expectations became entrenched among households and businesses.

Third, inflation targeting requires strong monetary-fiscal coordination. As noted by Chari and Kehoe (1990), economic policy setting means that policy makers need to think of policy as choosing a strategy or a contingent policy rule that tells the policy maker how to respond to shocks. In fiscal and monetary policy, expectations—that is, the future course of policy—matter. This makes policy setting inherently “now” versus “then” decisions. For example, the burst of fiscal expansion in India after the global financial crisis was slow to unwind, and there were some unintended consequences of the stimulus. This implies that monetary policy rules need to be backed up by fiscal rules. Looking ahead, as South Asian economies prepare for the postpandemic recovery, especially amid large fiscal deficits and higher public debt, stronger commitment to and clarity regarding medium-term fiscal consolidation plans would be important for upgrading the monetary policy frameworks and their effectiveness.

Fourth, central banks need to further improve their liquidity forecasting as they upgrade their monetary policy frameworks. Liquidity management and monetary policy cannot be moving in separate directions. The movements in government cash balances complicate liquidity forecasting. Furthermore, central banks need to widen their instruments to smooth out the volatility in call money markets.

Fifth, monetary policy framework upgrades require a well-functioning and liquid market in government securities. This helps minimize counterparty and liquidity risk in the banking system, and fosters an interbank repo market and a reliable yield curve.<sup>22</sup> Further development of government securities markets in South Asia would benefit from a more market-based pricing of government bonds and National Savings Certificates.

Sixth, developing an inter-bank market where banks lend to each other is important for improving monetary transmission. In this context, two-way open market operations can help, as shown by the Indian experience. Before inflation targeting, the open market operations conducted by the RBIs were generally one sided (purchases).

Seventh, one lesson from India for the region is the recognition that central banks cannot address all the inefficiencies in the economy, and if other policy makers (fiscal, financial) do not internalize the consequences of their actions, more inefficiencies can occur in the presence of diffuse and uncoordinated policy making amongst several policy makers (Davig and Gurkayanak 2015). Successful monetary policy requires a clearly defined mandate emphasizing price stability as well as a clear nominal anchor.

<sup>22</sup> There might also be some additional institutional constraints in South Asia when central banks are also debt managers.

Finally, as some of the larger South Asian economies (for example, Sri Lanka, Bangladesh) upgrade their monetary policy frameworks (for example, Bangladesh moving from a quantity-based (monetary) targeting framework to a price-based (interest) targeting framework), allowing greater exchange rate flexibility can support monetary transmission. In that context, adequate reserve coverage could help avoid excessive volatilities, given limited foreign exchange market development.

## REFERENCES

- Agénor, P., and L. Silva. 2019. *Integrated Inflation Targeting: Another Perspective from the Developing World*. Bank for International Settlements.
- Asnani, S., P. Kumar, J. Surti, and S. Toma. 2021. "Does Inflation Targeting Anchor Inflation Expectations? Evidence from India." Manuscript.
- Banerjee, S., P. Basu, and C. Ghate. 2020. "A Monetary Business Cycle Model for India." *Economic Inquiry* 58(3): 1362–86.
- Batini, N., 2004. "Achieving and Maintaining Price Stability in Nigeria." IMF Working Paper 04/97, International Monetary Fund, Washington, DC.
- Batini, N., and D. Laxton. 2006. "Under What Conditions Can Inflation Targeting be Adopted? The Experience of Emerging Markets." Working Paper 406, Central Bank of Chile.
- Bernanke, B.S., T. Laubach, F.S. Mishkin, and A.S. Posen. 1999. *Inflation Targeting: Lessons from the International Experience*. Princeton, N.J.: Princeton University Press.
- Blagrove, P. 2019. "Inflation Co-Movement in Emerging and Developing Asia: The Monsoon Effect," IMF Working Paper 19/147, International Monetary Fund, Washington, DC.
- Blagrove, P., and W. Lian. 2020. "India's Inflation Process Before and After Flexible Inflation Targeting," IMF Working Paper 2020/251, International Monetary Fund, Washington, DC.
- Cecchetti, S., and M. Ehrmann. 1999. "Does Inflation Targeting Increase Output Volatility? An International Comparison of Policymakers' Preferences and Outcomes." NBER Working Paper, National Bureau of Economic Research.
- Chari, V.V., and P. Kehoe. 1990. "Sustainable Plans," *Journal of Political Economy* 98 (4): 783–802.
- Cristadoro, R., and G. Veronese. 2011. "Monetary Policy in India: Is Something Amiss?" *Indian Growth and Development Review*, Emerald Group Publishing, 4(2): 166–92.
- Davig, T., and R. Gürkaynak. 2015. "Is Optimal Monetary Policy Always Optimal?" CESifo Working Paper Series 5473, Center for Economic Studies, Munich, Germany.
- Ghate, C., and K. Kletzer. 2016. "Introduction" in *Monetary Policy in India*, edited by C. Ghate and K. Kletzer. New Delhi: Springer.
- Ghate, C., S. Gupta, and D. Mallick. 2018. "Terms of Trade Shocks and Monetary Policy in India," *Computational Economics* 51(1): 75–121.
- International Monetary Fund (IMF). 2006. "Has Globalization Affected Inflation," Chapter III, *World Economic Outlook*, Spring. International Monetary Fund, Washington, DC.
- International Monetary Fund (IMF). 2015. "Evolving Monetary Policy Frameworks in Low-Income and Other Developing Countries," IMF Policy Paper, International Monetary Fund, Washington, DC.
- Kamber, G., O. Karagedikli, and C. Smith. 2015. "Applying an Inflation-Targeting Lens to Macropprudential Policy Institutions," *International Journal of Central Banking* 11(4): 395–429.
- Laurens, B.J., K. Eckhold, D. King, N. Maele, A. Nasser, and A. Durre. 2015. "The Journey to Inflation Targeting: Easier Said than Done." IMF Working Paper 15/136, International Monetary Fund, Washington, DC.

- Mishkin, F., and K. Schmidt-Hebbel. 2001. "One Decade of Inflation Targeting in the World: What Do We Know and What Do We Need to Know?" NBER Working Paper 8397, National Bureau of Economic Research, Cambridge, MA.
- Mohan, R. 2009. "Global Financial Crisis—Causes, Impact, Policy Responses and Lessons," Bank for International Settlements Review 54/2009.
- Patra M., M. Kapur, R. Kavediya, and S. M. Lokare. 2016. "Liquidity Management and Monetary Policy: From Corridor Play to Marksmanship," in *Monetary Policy in India*, edited by C. Ghate and K. Kletzer. New Delhi: Springer.
- Rajan, R. 2016. "The Fight against Inflation—A Measure of Our Institutional Development," Foundation Day Lecture Tata Institute of Fundamental Research, Mumbai, 20 June 2016.
- Reserve Bank of India (RBI). 2014. "Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework." Reserve Bank of India, Mumbai.
- Reserve Bank of India (RBI). 2021. "Report on Currency and Finance." Reserve Bank of India, Mumbai.
- Schmidt-Hebbel, K., and Carrasco, M. 2016. "The Past and Future of Inflation Targeting: Implications for Emerging Market and Developing Economies," in *Monetary Policy in India*, edited by C. Ghate and K. Kletzer. New Delhi: Springer.
- Svensson, L. 1997. "Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets." *European Economic Review* 41(6): 1111–46.
- Walsh, C. 2015. "Goals and Rules in Central Bank Design," CESifo Working Paper Series 5293. Center for Economic Studies, Munich, Germany.