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Special Report

Monetary policy for inclusive and sustainable development

Anis Chowdhury (2018)

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Monetary policy for inclusive and sustainable development

Anis Chowdhury¹

“...each member shall endeavour to direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability, with due regard to its circumstances.” (IMF, Articles of Agreement, Article IV, Section 1(i))

“...there is complete agreement that economic stagnation or large-scale unemployment is not an acceptable cost to pay for price stability or equilibrium in the balance of payments; there seems to be no difference of opinion over the need for compensatory fiscal and monetary policy to offset a recession in economic activity. On the other hand, it bears repeating that there is also no disagreement on the evils of large-scale inflation...” (United Nations, 1960, World Economic Survey 1959, p. 11)

I Introduction

Monetary policy objectives are clearly set out in the Article of Agreement VI of the International Monetary Fund (IMF). But the challenge, dilemma and possible trade-offs are succinctly captured by the United Nations’ 1959 issue of the *World Economic Survey*.

Should monetary policy be used to minimise short-run deviation of actual output from the potential? Should monetary policy be used to stabilise the price level and other monetary variables such as exchange rates and interest rates instead of output or employment? These are the questions that have fascinated both academics and policymakers ever since money became an essential feature of an economy. In the context of developing countries, these questions centre around monetary policy’s role in promoting long-term growth, poverty

¹ Valuable comments from Dr. Salehuddin Ahmed, former Governor, Bangladesh Bank (central bank), and Professor, BRAC University (Bangladesh), Dr. Atiur Rahman, former Governor, Bangladesh Bank (central bank) and Professor Dhaka University (Bangladesh), and Professor Jerry Epstein of University of Massachusetts, Amherst (USA) are gratefully acknowledged with usual caveats.

reduction, improving income distribution and financial inclusion, and accelerating structural transformation.

While there seems to be a general agreement that money plays a critical role, there remains considerable controversy with regard to an appropriate stance for and target of monetary policy in the long- and short-run or at different points in the economic (business) cycle. The controversy arises from the complexity and uncertainty of the underlying (a) long-run inflation-growth relationship, and (b) the possible short-run trade-off between price and output (employment) stabilisation. Monetary policy, aimed at price stability in the face of shocks (either demand or supply), causes greater output (employment) variability. This increases the vulnerability of workers whose income is just above the poverty line. If price stability does not produce economic (and employment) recovery quickly enough, then labour market dynamics may condemn a large number of vulnerable people to long-term unemployment and trap them in poverty.

While early development economists, mainly of a Keynesian persuasion, believed that money could promote long-term growth through inflationary financing, neoclassical economists believe that money is neutral in the long run. The neoliberal view, entrenched in international financial institutions and multilateral lending agencies (e.g., the IMF and the World Bank), is that expansionary monetary policy in the long run leads to accelerating inflation. This retards economic growth and ultimately hurts the poor, whom the expansionary policy aims to help in the first place. It has now become orthodox that monetary policy should aim to control inflation only, and an independent central bank free from political interference can do the job best.

However, empirical evidence shows that this orthodoxy is based on a handful of cases of extreme inflation and low or negative economic growth. Furthermore, conservative monetary policy under the IMF/World Bank adjustment programmes since the early 1980s has failed to ignite rapid economic growth except when stabilisation occurred in a hyperinflationary situation. There was very little progress in the world poverty level, except in China, during the two decades (the 1980s and the 1990s) when the Fund's structural adjustment programmes (SAP) were implemented with the support of the Bank, and in many places, poverty in fact worsened.² Empirical studies of the inflation-growth relationship show

² In sombre words, recently retired World Bank president James Wolfensohn acknowledged, "...if we take a closer look, we see something else – something alarming. In developing countries, excluding China, at least 100 million more people are living in poverty today than a decade ago. And the gap between rich and poor yawns wider." (Foreword, Thomas, et al. 2000). Easterly (2001) called the 1980s and 1990s "the lost decades". Also see Rodrik (1998) and World Bank (2005).

that both very low and high inflation can be inimical to economic growth, and moderate inflation rates may be necessary to grease the wheels of an economy.³ While inflation needs to be kept under control, as the experiences of the 1980s and the 1990s show, too much emphasis on a very low inflation rate may push an economy into what may be described as a ‘stabilisation trap’ which exacerbates poverty.⁴

In light of the above, this paper seeks to critically evaluate the restrictive monetary policy stance generally recommended by the IMF, and provide a framework for monetary policy for inclusive and sustainable development. The paper begins with a brief overview of the evolution of monetary policy objectives. It is followed, in Section III, by a critical review of both theoretical and empirical literature on the channels through which monetary policy can affect growth and poverty. Section IV critically assesses the wisdom and effectiveness of inflation targeting monetary policy and central bank independence in developing countries. It reflects on issues such as a potential contradiction between democratic governance and technocratic insulation of an institution in charge of monetary policy, and the political economy of the choice of weights between employment and price stabilisation for social welfare. A summary and policy recommendations are presented in Section V. The key messages that the paper intends to convey are:

- Monetary policy has a critical role to play in promoting inclusive and sustainable development, but is still beholden to restrictive inflation targeting (IT), despite its manifest inadequacies in accelerating growth, poverty reduction, and accelerating structural transformation.

³ For a brief survey of studies of the inflation-growth relationship, see Chowdhury and Siregar (2004).

⁴ See Chowdhury (2006) for the use of the ‘stabilisation trap’ term. One such example is Argentina, which suffered hyperinflation through the 1980s. Average annual inflation was around 391 percent and the economy contracted by an average annual rate of nearly one percent. The orthodox IMF stabilisation package brought inflation down to single digit levels averaging 1.5 percent annually, and the economy grew by an average annual rate of 6.7 percent during the 1991-1997 period. But severe restrictive macroeconomic policies forced a deflationary spiral. Inflation dropped to –0.9 percent and –1.3 percent in 2000 and 2001 respectively. The economy contracted by –3.4 percent in 1999 and –2.1 percent in 2000. The ‘stabilisation trap’ increased unemployment from 6.5 percent in 1991 to 17.5 percent in 1996. Consequently, the poverty rate (head-count ratio) rose from 21.8 percent in 1993 to 34.3 percent in 2002, and the Gini coefficient from 0.45 to 0.49. Stiglitz (2002) and Tobin (1987) highlighted the danger of over-emphasis on inflation control long before the Argentine collapse.

- Moderate inflation is not harmful for growth; nor does it harm the poor; but, sources of inflation matter. Monetary policy is not the best tool to address food prices or supply-shock inflation.
- Technocratic insulation of central banks with the sole mandate of a very low single-digit inflation rate can not only unnecessarily repress growth and long-term potentials, but can also undermine democracy.
- Central banks should have dual mandates – orderly growth and reasonable price stability – the specific targets being determined in a transparent and consultative manner; but they should have operational autonomy to choose appropriate policy tools to fulfil their given mandates.

II Monetary policy: From reasonable price stability for orderly economic growth to single-digit inflation targeting

There is widespread agreement that price stability should be an objective of monetary policy. This agreement is reflected both in the mandates set for monetary policy by governments and in the practice of central banks. However, historically, central banks also had several other important objectives, such as maximum employment (or higher economic growth), structural transformation (or sectoral development), financial sector stability (or an uninterrupted supply of liquidity) and exchange rate stability (or international competition). When central banks have more than one mandate, they are normally in a hierarchical order with price stability at the top. As Stanley Fischer (2015) noted, the legislation passed in the 1930s and 1940s on central banks typically had 'dual' mandates for both monetary stability and the promotion of full employment on an equal footing.

Until the 1970s, the financial sector in most developing countries was repressed, characterised by very low (and in some cases negative) real interest rates due to interest rate ceilings falling behind inflation. This was to promote growth, premised on the argument that investment is more sensitive to interest rates, while savings are not due to a larger income effect than substitution effect of interest rate changes.⁵ Another feature of the financial sector was the domination of state-owned banks and specialised sectoral financial institutions, such as agricultural or industrial banks. Thus, in addition to fixing interest rate ceilings, central banks in most developing countries until the early 1980s acted like a development bank, channelling financial resources to priority sectors in order to promote structural transformation (IMF, 2014).

⁵ When interest rates rise, households substitute (postpone) current consumption for future consumption (i.e., save more – the substitution effect). But higher interest rates also mean more income – thus encouraging current consumption (i.e., save less – the income effect). If the income effect dominates over the substitution effect, the net effect of interest rate changes can be negative or zero. Therefore, it was assumed that while lower or negative real interest rates were unlikely to adversely affect savings, they would encourage investment.

II.1 Financial sector liberalisation, financial crises, and loss of monetary policy independence

Financial repression came under attack with the ascendancy of neoliberal economic thinking and monetarism in the 1970s. The work of Ronald McKinnon (1973) and Edward Shaw (1973) provided the intellectual backing for a push for financial liberalisation in a background of faltering growth and rising inflation, although due mainly to commodity price shocks (e.g., two oil price hikes in the 1970s). A large number of developing countries began financial liberalisation reform from the mid-1970s, and the pace gathered momentum in the 1980s under SAP conditionality. The main aim of the reform, according to the World Bank, was to develop a market-oriented, world-integrated financial system for enhancing savings and efficient allocation of investment from both domestic and foreign sources, and thereby to accelerate economic growth (World Bank, 1989). In the 1990s, financial reforms were extended to liberalisation of capital accounts in a number of developing countries, arguing that this would encourage foreign capital inflows and deepen the financial sector.

Unfortunately, the episode of financial liberalisation was not an entirely happy one, as many developing countries experienced financial crises following financial liberalisation reforms, the most notable one being the 1997-98 Asian financial crisis (see Arestis and Demetriades, 1999). This was partly due to the wholesale dismantling of prudential regulations (e.g., controls on short-term capital flows and banking supervision) along with a liberalisation of economic regulations (e.g., interest rate controls and monitoring of credit growth) and partly due to incorrect sequencing of reforms (see Demirgüç-Kunt and Detragiache, 1998). Protagonists of financial reforms blamed the countries for not doing enough, especially to restore macroeconomic stability (meaning bringing inflation down to a very low single-digit level). But prominent critics, such as Lance Taylor (1988), see the failure

of financial liberalisation as a vindication of their view that financial liberalisation is essentially an ideologically driven theoretical aberration unrelated to the objective conditions of the financial sectors of developing countries.⁶

These financial crises had devastating impacts on long-term growth and poverty. Yet, financial liberalisation reforms remain on the agenda of international financial institutions and the donor community. The financial sector in developing countries, thus, has become increasingly vulnerable to shocks and spill-over effects from economic policies in major economies, making the task of central banks to pursue independent monetary policy that suits the developmental needs of respective countries extremely difficult. Central banks have also lost control over traditional monetary policy instruments, such as monetary aggregates or credit growth, due to financial innovations that followed liberalisation.

II.2 The advent of inflation targeting and central bank independence

Meanwhile, as the inflationary forces that eventually led to the collapse of the Bretton Woods system gathered momentum in the late 1960s and 1970s, the focus of monetary policy shifted to the maintenance of the domestic value of the currency. “In the decades that followed, central banks began to place greater emphasis on the *stabilization* of inflation [*rather than just keeping inflation low*], and that trend has continued to date” (Fischer, 2015, p. 3; emphasis added).

New Zealand in 1990 became the first country to establish a formal inflation-targeting (IT) regime.⁷ It is now believed that price stability is the most effective way in which the

⁶ Chang (2002) is more forceful in stating that the liberalisation move ignores the history of the development process that now developed countries had undergone.

⁷ Canada followed in 1991, the United Kingdom in 1992, and Australia and Sweden in 1993. Subsequently, Finland and Spain adopted inflation targeting (before becoming members of the European Monetary Union).

central bank can contribute to economic growth. In parallel, the independence of central banks has been strengthened significantly as a means to attain this goal.

Encouraged by the IMF, the inflation targeting monetary policy framework has now found its way to developing countries. A survey of 65 low and lower middle income countries (LLMICs) by the IMF,⁸ reported in 2015, provides a glimpse of some common features of monetary policy frameworks in developing countries. A majority of surveyed countries (81 percent) identify price stability as the primary or overriding objective of monetary policy.

Brazil and Colombia were the first among developing countries to adopt formal inflation targeting in 1999, followed by South Africa and Thailand in the following year. The latest to join the IT group were Argentina and India in 2016. Among the transition economies, the Czech Republic was the first to adopt IT in 1997 followed by Poland in 1998 and Hungary in 2001. There are now 23 developing countries and transition economies with a formal inflation targeting monetary policy framework (see Table 1). It is interesting to note that some countries adopted inflation targeting when inflation rates were relatively low.

⁸ 'Low and lower middle income countries' (LLMICs) describes the merged sample of low income developing countries (LIDCs) based on the IMF classification and lower middle-income countries (LMICs) based on the World Bank classification. The LLMIC and EM country groups are not mutually exclusive; some LLMICs are EMs.

Table 1: Inflation targeting in developing and transition economies

Country	Year of IT adoption	Inflation rate at the time of adoption (%)	Inflation target for 2018 (%)
1. Czech Republic	1997	8.57	2.0 (+/- 1.0)
2. Poland	1998	11.65	2.5 (+/- 1.0)
3. Brazil	1999	953.4	4.5 (+/- 1.5)
4. Colombia	1999	24.1	3.0 (+/- 1.0)
5. Romania	2000	46.1	2.5 (+/- 1.0)
6. South Africa	2000	9.9	3.0-6.0
7. Thailand	2000	5.0	2.5 (+/- 1.5)
8. Hungary	2001	20.3	3.0 (+/- 1.0)
9. Mexico	2001	19.7	3.0 (+/- 1.0)
10. Peru	2002	19.4	2.0 (+/- 1.0)
11. Guatemala	2005	7.5	4.0 (+/- 1.0)
12. Indonesia	2005	14.2	4.0 (+/- 1.0)
13. Philippines	2005	6.8	3.0 (+/- 1.0)
14. Armenia	2006	5.8	4.0 (+/- 1.5)
15. Turkey	2006	51.6	5.0 (+/- 2.0)
16. Ghana	2007	19.3	8.0 (+/- 2.0)
17. Albania	2009	3.0	3.0 (+/-1.0)
18. Georgia	2009	-2.5	5.0
19. Paraguay	2011	8.2	4.0 (+/-2.0)
20. Uganda	2011	15.0	5.0 (+/-2.0)
21. Moldova	2012	4.6	5.0 (+/- 1.5)
22. Argentina	2016	41.2	0*
23. India	2016	5.1	4.0 (+/- 2.0)

Sources: Respective national central banks; inflation target for 2018 – Central Bank News.

Note: * Zero growth in monetary base as of 26 Sept. 2018. Figures in parentheses are the range or band for deviations from the target inflation rate.

As can be seen from Table 1, almost all IT countries have an inflation target for 2018 below 5 percent (the median being 3 percent) with a very narrow margin of +/- 1.0 percent. The IMF's 2015 survey also reveals that the policy horizon is often very short, implying that the IT central bankers react to current events more than the underlying pressure. Thus, they

can be described as “inflation nutters”.⁹ The short-termism is perhaps due to the IMF’s ‘review-based’ approach to monetary policy conditionality, which involves setting bands around a target inflation variable, and consultations with staff or the Board being triggered if actual inflation deviates outside the band.¹⁰

In the 1980s, central bank independence (CBI) emerged as the recipe to avoid the pervasive inflationary consequences of short-sighted electoral ambitions.¹¹ Table 2 presents evidence of increased independence for central banks across all countries, following the methodology of Cukierman, Webb, and Neyapti (1992), which considers four components: (i) appointment procedures for the head of the central bank; (ii) the resolution of conflict between the central bank and the executive branch of government; (iii) the use of an explicit policy target; and (iv) rules limiting lending to government.

⁹ The term used by Mervin King, former governor of the Bank of England (King, 1997).

¹⁰ The review-based approach for monetary policy conditionality was approved by the IMF Board in 2000, and has been implemented in practice through the inclusion of consultation clauses in Fund arrangements. Under these clauses, if the member’s inflation exceeds the inner band, a consultation with Fund staff is triggered; and if the member’s inflation exceeds the outer band, access to resources under the arrangement is interrupted until the member consults with the Executive Board and the relevant programme review is completed. See IMF (2014), IMF (2014a).

¹¹ The advice followed from the ‘rules versus discretion’ literature (Barro and Gordon, 1983; Rogoff, 1985) to solve the time-inconsistency problem (Kydland and Prescott, 1977) by delegating the control of monetary policy to independent central banks. International agencies and policymakers embraced this advice (IMF, 1999; World Bank, 1992).

Table 2: Mean level (later period) and change in central bank independence (CBI)**(Components and total index)**

CBI - components	All countries		Advanced economies		Emerging market economies	
	Level	Change	Level	Change	Level	Change
CBI-i	0.57 (0.18)	0.08*** (0.20)	0.55 (0.18)	0.03 (0.17)	0.58 (0.18)	0.111*** (0.21)
CBI-ii	0.63 (0.29)	0.40*** (0.35)	0.69 (0.33)	0.46*** (0.35)	0.61 (0.27)	0.36*** (.038)
CBI-iii	0.55 (0.23)	0.15*** (0.33)	0.51 (0.22)	0.08 (0.36)	0.56 (0.24)	0.19*** (0.31)
CBI-iv	0.65 (0.31)	0.30*** (0.32)	0.67 (0.39)	0.34*** (0.41)	0.64 (0.27)	0.29*** (0.26)
CBI-total	0.61 (0.20)	0.25*** (0.21)	0.62 (0.24)	0.25*** (0.25)	0.61 (0.18)	0.24*** (0.19)
No. of Obs.	99	69	26	26	73	43

Source: Crowe and Meade (2008)

Note: *** significant at 1% level; figures in parenthesis are standard deviations.

Table 2 includes the mean scores for each component and for the overall index, for all countries in the sample and for two subgroups: advanced economies and developing and emerging market economies. All four components of independence have shown a statistically significant increase in developing and emerging market economies, implying more comprehensive reforms since the 1980s.

Arnone et al. (2009) calculated indices of central bank autonomy (CBA) for 163 central banks as of end-2003, and comparable indices for a subgroup of 68 central banks as of the end of the 1980s. Their results confirm strong improvements in both economic and

political CBA over the past couple of decades. Overall CBA in emerging market economies more than doubled over time and surpassed CBA typical in the advanced countries in the late 1980s. Although political autonomy was lower, they found a significant increase in economic autonomy in developing countries. They concluded, “Almost all central banks have been mandated to set price stability as one of the objectives of monetary policy, are free to set the policy rate, and are not required to provide automatically direct credit to the government” (p. 25). Using a larger set of data, Garriga (2016, p. 862) also found that “Central banks in lower-income countries gained relatively more independence in policy matters and from the redefinition of the bank’s objectives.”

In sum, an explicit low single-digit inflation target (usually at less than 5 percent) by an independent central bank has become the norm for monetary policy frameworks around the world, including in almost all developing countries, even when IT has not been adopted formally.¹² The IMF and the World Bank have played a major role in this development on the grounds that such a framework for monetary policy is the best for achieving sustained economic growth and poverty reduction.

¹² See information at Central Bank News (2018).

III Monetary policy, growth, and poverty: Theories and evidence¹³

Monetary policy can affect growth and poverty through its ability to influence inflation and stabilise output (and employment). Since monetary growth and inflation are generally believed to be positively linked, money's role in poverty reduction will be examined by looking at the inflation-growth, inflation-poverty and inflation-inequality relationships, and short-run trade-offs between output and price stabilisation.

III.1 Money in the long run

This subsection reviews theoretical arguments and empirical evidence about the impact of inflation on long-term growth, poverty, and income distribution.

III.1.1 Does inflation harm growth?

On the question, "Is inflation harmful to growth?", Bruno and Easterly (1998, p. 3) concluded, "The ratio of fervent beliefs to tangible evidence seems unusually high on this topic".

Milton Friedman (1973, p. 41) highlighted uncertainty about the inflation-growth relationship: "Historically, all possible combinations have occurred: inflation with and without [economic] development, no inflation with and without [economic] development." The evidence shows that many countries grew at respectable rates even when inflation ranged between 15 percent and 20 percent. One of the dynamic East Asian economies, the Republic of Korea, grew by more than 8 percent in the 1960s and 1970s when average inflation rates were around 17.5 percent and 16.5 percent respectively.

Early development economists believed that growth was not constrained by savings, but by investment. Monetary expansion creates inflation that, according to them, generates 'forced' savings to match the required investment for the desired growth. There are at least

¹³ This section draws on Chowdhury (2006), Hossain and Chowdhury (1996, 1998)

two channels through which this can happen. First, inflation redistributes income from wage-earners whose marginal propensity to consume is high, to profit-earners with a higher marginal propensity to save (Kalecki, 1976; Kaldor, 1955-6; Robinson, 1962).¹⁴ Second, inflation forces people to hold more money in order to maintain their real balances, and thereby transfers resources to the government, so that inflation acts like a tax (Bailey, 1956; Mundell, 1965, 1971; Kalecki, 1976). Thus, inflationary finance raises the volume of savings to match higher investment for growth.

Tobin (1965) modelled an alternative channel on substitution in savings portfolios. Here, monetary expansion and hence inflation reduces the real value of financial assets vis-à-vis physical assets, inducing wealth holders to shift their portfolio of savings from financial investments to investments in plants and equipment. As a result, the capital intensity of production rises, which raises the growth rate. With accelerated growth of income, there will be a rise in savings that finances further growth. Thus growth becomes self-financing. The policy prescription that follows has two main features: moderately high inflation, and control of interest rates. The combination produces a low real interest rate, which is expected to encourage investment, and at the same time forces people to save more, as the income effect dominates the substitution effect.

However, as in many developing countries, the combination of high inflation and low interest rates may produce a very low (or at the extreme, a negative) real interest rate – namely, financial repression. In a financially repressed economy, the substitution effect can dominate the income effect of interest rates as the rate of return on savings is too discouraging. On the other hand, the high and variable inflation rates have the potential to

¹⁴ Thirlwall (1989) developed a model to explicitly demonstrate the working of forced savings via income distribution. According to Thirlwall (1989, p. 281), “Other things remaining the same, if prices rise faster than wages, real consumption will fall and real savings increase as long as the propensity to save out of profits is higher than the propensity to save out of wages...[T]herefore, the effect of inflation on savings depends on two factors: first, the extent to which income is redistributed between wages and profits; and second, the extent of the difference in the propensity to save out of wages and profits.”

raise the cost and riskiness of productive investment. This may induce the private sector to invest in quick-yielding financial assets rather than in longer-term projects, or in unproductive real assets such as real estate or gold. This may produce results contrary to Tobin's model (see, for example, Baer, 1967; Dornbusch and Reynoso, 1989; and Mundell, 1971).

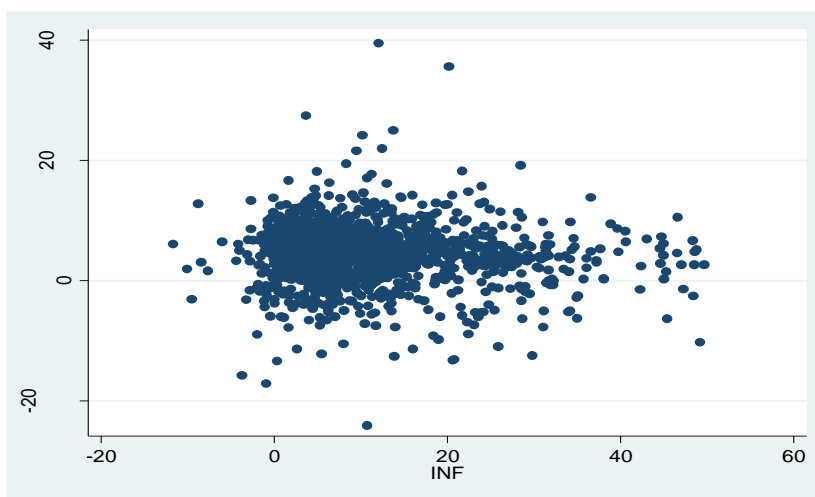
Additionally, high inflation can force governments to impose various price controls. This can generate 'rent-seeking' and directly unproductive activities. At the same time, there is no guarantee that the resources transferred to the government through an inflation tax will be invested productively. Finally, in an open economy with inflexible or sluggish exchange rates, if the domestic inflation rate exceeds the inflation of the trading partners, the balance of payments will worsen. This will make the foreign exchange constraint more severe than the savings constraint. The situation can become worse when hyperinflation induces capital flight in anticipation of devaluation (see Findlay, 1984; Johnson, 1984; and McKinnon, 1964).

The opposing school, therefore, prescribes control of inflation and deregulation of interest rates, known as financial liberalisation. It sees money stabilising prices rather than output. Stabilising price levels and maintaining low inflation creates investor confidence. At the same time, financial liberalisation encourages saving as the real rate of interest turns positive. The lacklustre growth performance of most developing countries and the high inflationary experience in the 1970s and 1980s gave much credence to the financial liberalisation view. The experience of fast-growing East and Southeast Asian economies contributed to its ascendancy. Control of inflation at very low levels, and financial liberalisation, have become the two pillars of the IMF/World Bank policy packages. But failure of this orthodoxy to reignite growth, especially in 1997-98 crisis-hit Southeast Asia, has led to re-examination of links between economic growth and inflation.

Figure 1 presents the scatter plots of average annual inflation rates and average annual growth rates in 40 developing countries during the 1961-2010 period. As can be seen, the negative relationship between inflation and growth is influenced by extreme

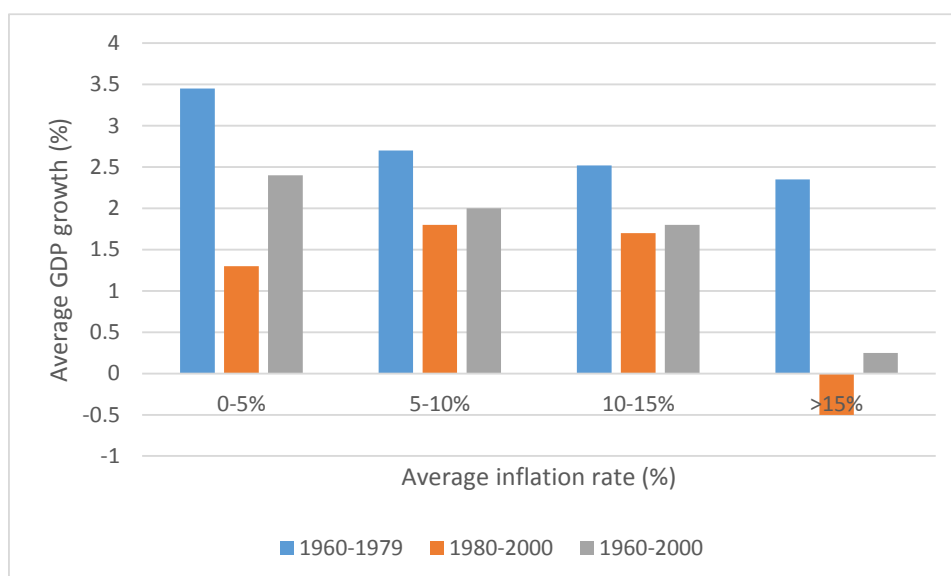
values, by outlying countries having exceptionally high inflation rates. There is practically no relationship for inflation rates below 25 percent.

Figure 1: Inflation and growth (40 developing countries in Asia, Africa and Latin America, 1961-2010)



Source: World Development Indicators (various issues)

Figure 2: Inflation and per capita growth rate, 1960-2000



Source: World Development Indicators (various issues)

Figure 2 plots average inflation and growth rates over four decades (1960-2000) for 141 countries. Two interesting features emerge. First, the inflation-growth relationship was negative in the period 1960-1979. But the 1970s was an exceptional period characterised by stagflation caused by two oil price shocks.¹⁵ We can get a better understanding of the inflation-growth relationship from the figures in the later periods when the relationship became non-linear – first positive and then negative in the later period of 1980-2000. This confirms the uncertain nature of the inflation-growth relationship. Second, the variation in growth rates between the two time periods is much larger at times of both low and high inflation. That is, both high and low inflation rates can be destabilising, and hence, harmful to the poor.

The overall message from the scatter plots (Figure 1 and Figure 2) is consistent with the findings of Bruno and Easterly, who examined inflation-growth data for the period 1961-1994. They concluded, “the correlation loses significance with the omission of single observation – Nicaragua, which had hyperinflation and negative growth in the 1980s... More generally, the significance and sign of the cross-section correlation depends on the inclusion of the countries with high inflation crises – the above 40 percent episodes...” (1998, p. 5). They also observed, “the significance of the negative growth during 20 percent-40 percent inflation vanishes if a **single** extreme annual observation is omitted – Iran in 1980” (p. 15). They did not find any significant evidence of a negative association between inflation and growth during 20 percent-40 percent inflation episodes. Thus, ‘moderate’ inflation does not seem to harm economic growth. Easterly (2003) reported similar findings and regarded inflation rates below 35 percent as moderate.¹⁶

¹⁵ Bruno and Easterly (1998, p. 10) found that the growth-inflation association was sensitive to changes in the sample period.

¹⁶ Levine and Zervos (1993) found that the inflation-growth relationship disappeared when two extremes, Nicaragua and Uganda, were omitted. Stanners (1993, p. 106) concluded, “No evidence has been found to support the notion that a low rate of inflation has in the past and in various countries been associated with

The study of modern hyper- and high inflations by Fischer, et al (2002) reported similar findings. This study categorised inflation rates over 100 percent as “very high”, between 50 percent and 100 percent as “high” and between 25 percent and 50 percent as “moderate to high”. It found that real GDP per capita fell on average by 1.6 percent per annum during very high inflation episodes (average 739 percent), but rose by 1.4 percent during years of low inflation (average 22.4 percent). A similar pattern was found for private consumption per capita and investment growth per capita. They also found that current account and fiscal deficits worsened during high inflation.

Dornbusch and Fischer (1993) found that an inflation rate in the moderate range of 15 percent to 30 percent does not usually accelerate to extreme levels. Similarly, Bruno and Easterly (1998) found the threshold inflation rate of 40 percent, at which the probability of the inflation rate accelerating rises significantly. Only in a handful of cases did inflation rates accelerate and output stagnate or decline, and these cases could be attributed to unusual circumstances (e.g., Iran or Nicaragua in the 1980s following dramatic falls of the regimes).

In their study, Fischer, et al. (2002, p. 841) noted that episodes of hyperinflation are “quite rare ... still relatively rare [are] episodes of very high inflation, defined as inflations in excess of 100 percent per annum”. They also found that when the inflation rate is less than 25 percent it is highly likely (a probability of 95.4 percent) that it will stay in that range in the following years, and until inflation reaches the 200 percent level, it is more likely to fall than

improved growth rate...” Fischer, Sahay and Vegh (1996) put the figure beyond which inflation can be harmful at 50 percent for transition economies. However, works within the IMF by Sarel (1996) and by Khan and Senhadji (2000) found that inflation above 7-11 percent can be harmful for growth. Based on non-linear regression estimates of the relationship between inflation and economic growth for 80 countries over the period 1961-2000, Pollin and Zhu (2006) found that higher inflation is actually associated with moderate gains in GDP growth up to a threshold of approximately 15 percent to 18 percent inflation. The study by Sepehri and Moshiri (2004) of panel data from both developed and developing countries shows that the estimated turning points varied widely from as high as 15 percent per year for the lower-middle-income countries to 11 percent for the low-income countries, and 5 percent for the upper-middle-income countries.

rise. Fischer, et al. (2002, p. 845) concluded, “most of the time, in most countries, inflation is low”.

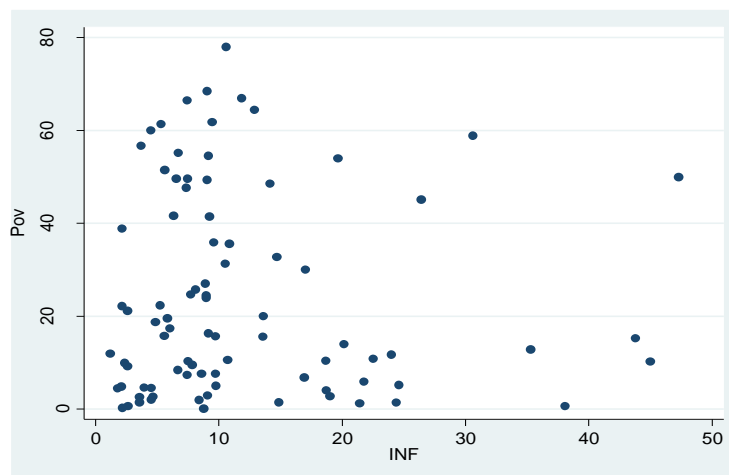
Interestingly, Fischer et al. found that despite a very high association between money growth and inflation, the causality (in a Granger sense) in most cases does not run from money growth to inflation. Instead inflation was found to ‘Granger-cause’ money growth. Although they identified a budget deficit as a trigger factor for inflation (which causes money growth), “the relationship between the fiscal balance and inflation becomes significant for the high-inflation countries but does not for the low-inflation countries” (p. 854). According to them, “no obvious long- or short-run relationship between inflation and fiscal balance is found for the low-inflation countries or during the low-inflation episodes in the high-inflation countries” (p. 855).¹⁷

III.1.2 Does inflation harm poor?

The claim of the orthodox school that inflation harms the poor breaks down when one considers inflation rates in the range of 5-20 percent (see Figure 3). Consistent with the aggregate inflation-growth relationship, the negative relationship between inflation and the income of the poor is based on a few cases of extreme inflation. This is consistent with the research findings reported in Romer and Romer (1998) for the period 1970-1990.

¹⁷ Note that low inflation is defined as less than 25 percent.

Figure 3: Inflation and poverty (40 developing countries in Asia, Africa and Latin America, 1961-2010)



Source: World Development Indicators (various issues)

It is alleged that inflation disproportionately hurts the poor. There are at least two channels through which it can happen. First, since wage adjustments typically fall behind price rises, inflation reduces the real wage. Since most of the poor are wage earners, the share of the income of the poor in the national income declines vis-à-vis that of profit earners. Second, if there are any savings, the poor mostly hold them in money. Inflation reduces the real value of money holdings. If inflation is unanticipated, the poor will be harmed even more disproportionately, as they have weaker bargaining power and are generally unable to hedge against inflation.¹⁸

However, there are several counter arguments. First, if real wages decline due to inflation then employment should rise, implying a short-run trade-off between inflation and unemployment. Therefore, the employment effect of inflation can outweigh the real wage effect on poverty. This is likely to be the case, as the inflation elasticity (real wage) of poverty

¹⁸ As noted earlier, these are the two channels of forced savings, highlighted by the early development economists. However, the difference between the early development economists and the neoliberal orthodoxy is that the former believed that inflationary financing would promote economic growth whereas the latter holds that inflation is harmful for growth. Thus, according to the neoliberal school, inflation hurts the poor doubly – by reducing their average income and by making the income distribution more unequal.

is found to be significantly less than the output (employment) elasticity of poverty. For example, using pooled data from a cross section of 85 countries, Ghruha et al. (2002) found the inflation elasticity of the income of the poor to be 0.03 as opposed to the output (employment) elasticity of 0.94. These estimates are similar to those found by Romer and Romer (1999).

Second, the gain from an expansionary monetary policy will not be temporary if the inflation rate remains moderate. This is evident from the positive relationship between moderate inflation and economic growth as demonstrated earlier (see Figures 1 and 2).

Third, the poor have very limited financial assets; they are largely net financial debtors. Thus, inflation can benefit the poor by reducing the real value of their net debt. In contrast, lower inflation increases the real value of financial debt, and high interest rate policies aimed at bringing inflation down increase debt-servicing costs of the indebted poor, making them doubly disadvantaged. Indeed, studies have found that income distribution narrows during the expansionary phase and widens during the contractionary phase of a business cycle.¹⁹

The above survey of empirical evidence and past studies shows that only extreme inflation adversely affects the poor. The average income of the poor declines when inflation is either very low or very high; moderate inflation was not found to affect the poor. However, average inflation can be moderate, yet the inflation rate of particular items that feature prominently in the consumption basket of the poor may be quite high. To reduce poverty, policymakers should monitor not only average inflation but also its components. Of particular importance is the price of food. The poor are vulnerable to food price rises even when overall

¹⁹ See for example, Blank and Blinder (1986), Blank and Card (1993), and Cutler and Katz (1991). Blank and Blinder (1986, p. 184) termed inflation a progressive tax and unemployment a regressive tax. They found that high unemployment redistributes income away from the bottom two quintiles and toward the top quintile, whereas inflation redistributes away from the fourth quintile toward the lowest quintile.

inflation is moderate. As the experience of Indonesia shows, food price stabilisation contributed significantly to rapid poverty reduction.

Food price inflation is generally caused by supply shortages, due to supply shocks and/or market manipulation by unscrupulous traders. Monetary policy is not a very good instrument for controlling it. If the average inflation rate rises due to food price inflation, then the application of a restrictive monetary policy can only worsen the condition of the poor by inducing contraction in other sectors. Food price stabilisation is complex. It requires a combination of legislation against hoarding and manipulation, and subsidies and market regulation through government that will have implications for fiscal balance and require support from monetary policy.

III.1.3 Does inflation worsen income distribution?

Rigorous multi-country study, which included both developed and developing countries, by Romer and Romer (1999) found that the alleged adverse distributional effect of inflation was due to extreme inflationary cases. Romer and Romer did not find any significant relation between inequality (Gini coefficient) and inflation when the inflation rate ranged between 5 percent and 15 percent. On the other hand, inequality was found positively correlated with the variability of nominal GDP growth (see Romer and Romer, 1999, Charts 5, 7, 10, 11, 12 & 13). The evidence presented in Romer and Romer (1999) vindicates the need for an output-stabilising monetary policy stance that allows for moderate inflation.

III.2 Money in the short run: Is there any output stabilisation role?

Having examined the inflation-growth-poverty-inequality relationships, we now examine the neoliberal position on money's role in short-run stabilisation in response to demand and supply shocks. The orthodox school, following Milton Friedman, holds the view that monetary policy should not be used to stabilise output. Rather, monetary policy should seek

to stabilise the price level. This is consistent with the new classical view that there is no long-run trade-off between inflation and unemployment, and inflation is detrimental. Accordingly, money can best contribute to economic growth by stabilising the price level and maintaining a low inflation rate.

III.2.1 Demand shocks

Whether monetary policy has any role in stabilising output hinges on, (a) to what extent developing countries are prone to demand shocks, and, (b) to what extent prices (product prices, exchange rates, and interest rates) and wages are flexible.

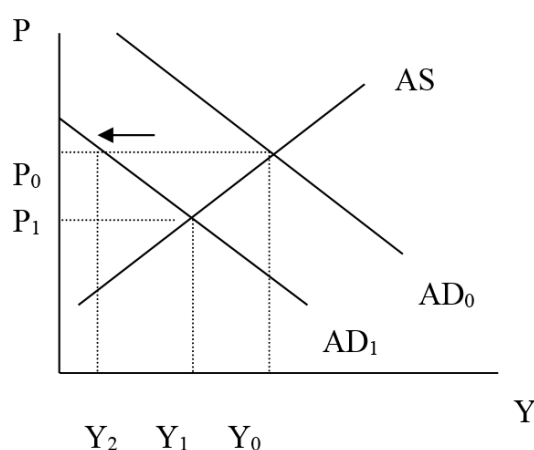
Contrary to the orthodox view, the components of aggregate demand are less stable in developing countries. First, the export base of developing countries is very narrow, so their export demand remains vulnerable to instability in the international market. This is true even for newly industrialising and emerging economies as evident from the growth slowdown in them due to slow recovery from the 2008-2009 global financial crisis (GFC) and recent declines in commodity prices. Second, in developing countries with a high incidence of absolute poverty, current income plays a dominant role in determining consumption expenditure. This makes consumption pro-cyclical, exacerbating the effects of any exogenous shock. The role of current income becomes more significant when underdeveloped credit markets create a liquidity constraint, which causes the short-run marginal propensity to consume to become larger than that implied by the permanent income or life cycle hypothesis. Businesses, too, are more vulnerable to shocks to their cash flow as they mainly depend on their own finance.

Among the key prices, the exchange rate is generally less flexible in developing countries, because most of them follow a quasi-fixed exchange rate regime to prevent imported inflation and to attract foreign capital inflows. Thus, demand shocks coming through the external sector cannot be absorbed by exchange rate adjustments. Even a

flexible exchange rate regime may not succeed in cushioning an economy against adverse external demand shocks. If a country responds to a sudden fall in export demand by allowing its currency to depreciate significantly, soon its competitiveness will disappear through inflation due to its high import-dependence.²⁰ Moreover, if the decline in external demand is widespread, affecting most countries, then depreciating currencies are likely to create a ‘beggar-thy-neighbour’ situation with no benefit for anyone but high inflation.

Therefore, adjustments to demand shocks have to happen by either output cuts or declines in prices and wages (or some combinations of both).

Figure 4: Adjustments to demand shocks



As can be seen from Figure 4, the decline in output is larger in the case when price is rigid than when price falls in response to an adverse demand shock. It is generally believed that industrial product prices and wages are inflexible or sluggish downward. This follows from the less competitive nature of the industrial product market and more unionisation in the urban and industrial sectors vis-à-vis the agricultural and informal sectors. Even in the un-unionised sector, wages cannot be lowered much as they are already too low. Therefore,

²⁰ Most countries are forced to adjust nominal wages upward following a large depreciation as workers demand protection of their real wages from imported inflation. This phenomenon is known as ‘real wage resistance’, which offsets the effects of depreciation.

adjustments in the industrial or formal sector happen by output cuts, with substantial adverse impacts on employment and hence on the income of low-skilled poor workers.²¹

If the unemployed seek work in the more competitive agriculture and informal sectors, then wages in these sectors will decline. This may push wages below subsistence level with devastating effects on the material wellbeing of unskilled poor workers.

Therefore, regardless of whether adjustments happen through output or prices, falling aggregate demand will have serious implications for the poor.

If the adjustment happens through cuts in output and employment, the first to lose their jobs are unskilled and unorganised workers. On the other hand, if adjustments happen through declines in wages, again the unorganised and unskilled workers would be forced to accept lower wages. Thus, the poor, unorganised workers are forced to choose between jobs and lower real wages. In either case, the average income of the poor is likely to drop when nominal GDP growth drops from its trend. Multi-country evidence (e.g., Romer and Romer 1999, Charts 5 & 7) shows that the average income of the poor is negatively related to aggregate demand variability. This negative relationship does not break down even when the outliers are omitted. The same can be said when we consider inequality (Romer and Romer 1999, Charts 11 & 13).

Therefore, from the point of view of protecting the poor, monetary policy needs to stabilise output in the face of adverse demand shocks. When the concept of poverty is widened to include vulnerability, monetary policy needs to stabilise employment of the poor, regardless of the sources of the shocks. Policymakers must accept moderate inflation as a trade-off, as more likely to protect the income of the poor than harm it. Moderately

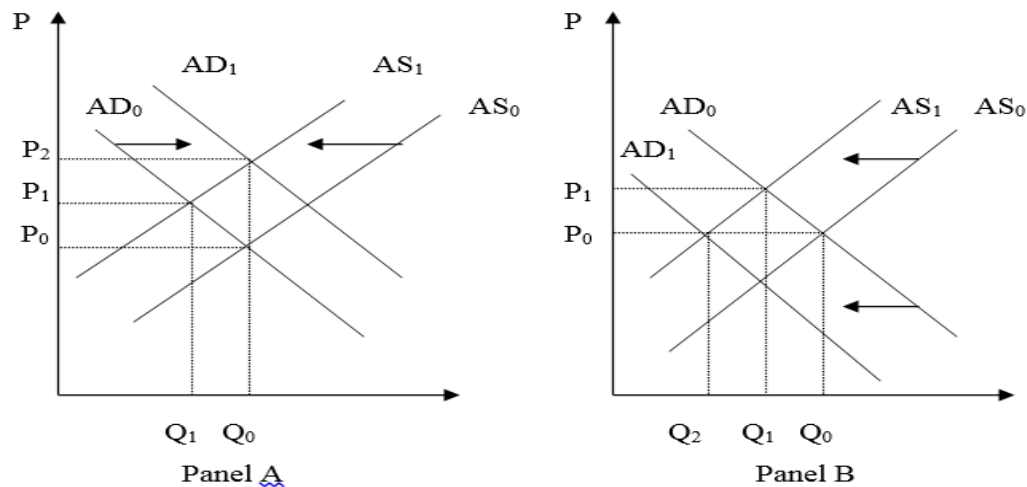
²¹ If nominal wages are sticky downward due to either institutional reasons (e.g., a minimum wage or union power) or their subsistence nature, the insistence on price stability or a very low inflation target is likely to raise real wages. See Akerlof, et al. (1996) and IMF (2005).

expansionary policies in the wake of a shock can prevent the vulnerable from becoming unemployed and falling into a poverty trap.

III.2.2 Supply shocks

It is generally accepted that developing countries are more prone to supply shocks than demand shocks (IMF, 2005). This is due to their heavy dependence on agriculture, imported raw materials, and energy (oil). While alternating floods and drought are almost regular phenomena affecting agriculture, declining terms of trade due to the rising prices of imported raw materials and energy adversely affect the industrial sector. “The aggregate impact of such shocks may be more pronounced [in developing countries] due to the limited diversification of production and consumption and the prevalence of de facto trade barriers (including, e.g., lack of transportation and integrated distribution networks)” (IMF, 2005, pp. 20-23).

The choice between output and price stabilisation becomes starker in the case of a supply shock. As observed by the IMF (2015, p. 30), “supply shocks provide the most visible example of the trade-off between price and macroeconomic (output) stability”. As shown diagrammatically in Figure 5, these shocks typically result in higher inflation, yet efforts to offset these pressures by tightening monetary policy will negatively affect output.

Figure 5: Adjustments to supply shocks

In panel A, the response to an adverse supply shock is an expansionary monetary policy to stabilise output at Q_0 , whereas in panel B, the response is a contractionary monetary policy to stabilise the price level at P_0 . When the response is an expansionary policy, the price level rises further to P_2 , causing higher inflation. On the other hand, when the objective is price stabilisation with a contractionary monetary policy, output declines further to Q_2 . Beddies (1999) has demonstrated that inflation-targeting monetary policy does not lead to an optimal output stabilisation of aggregate supply shocks. That is, a price-stabilisation target leads to greater output variability.

The orthodoxy asserts that supply-shock inflation is inevitable, but will be only temporary, and should not be responded to. Supply shock inflation persists only when there are secondary effects, such as through accommodating higher wage demand to compensate a higher first-round rise in the cost of living. The IMF (2015) advises that the second-round effects must be counteracted with some degree of policy tightening. However, it also advises that “the degree of tightening should provide a reasonable balance between the goal of price and output stability, with the understanding that greater weight on output

stability implies all else equal a more moderate policy tightening and a more gradual return of inflation to the target” (IMF, 2015, p. 28).

Using Malaysian data, Domac (2001) has found that monetary tightening has a larger impact on SMEs than it does on large firms in both the persistence and variability of output.²² This happens due to declines in sales and increases in the interest cost of servicing debts with monetary contraction. These impacts are likely to be larger as central banks have to raise policy interest rates substantially to achieve their inflation targets in light of the findings that the long-run relationship between growth in monetary aggregates and inflation has become weaker in recent periods in countries with higher financial development (IMF, 2014a).

SMEs depend more on bank lending for their working capital than do large enterprises, which can rely on internal financing or raise funds from the capital market, so tighter monetary policy causes disproportionate cash-flow problems for SMEs. These are exacerbated when SME access to bank lending declines due to the decline in the value of marketable collateral.²³ Given the labour-intensive nature of SMEs, this is likely to have an adverse effect on the income of the poor and low-skilled workers. Thus, it is not a surprise that Figure 6 shows adverse impacts of output variability on the average income of the poor.

Therefore, it is clear that monetary policy is not “neutral” as between the various claimants upon the resources of the economy. According to the orthodoxy, monetary policy is par excellence a ‘non-discriminatory’ policy compared to fiscal policy, for regulating general economic activity. But while monetary policy may be administered uniformly, it does not follow that it is therefore neutral. “Uniform policies are neutral when applied under uniform circumstances; when the underlying conditions are not comparable, such policies

²² Similar findings are reported in Tanzania in Hellinger et al. (2001). The Indonesia country report shows how monetary tightening exacerbated the crisis by causing cash-flow problems even for sound enterprises.

²³ See Stiglitz (2002) on how high interest rate policy can cause corporate distress.

may be highly discriminatory in their effect. A uniform monetary policy without allowance for special circumstances and needs is no more likely to be 'neutral' as between different sectors of the economy than would be a uniform income tax imposed on all incomes without exemption" (United Nations, 1957, p 7).

III.3 Money, inflation, growth, poverty and inequality: Summary and policy implications

Money can play an important role in accelerating inclusive growth and poverty reduction. However, the link between money and growth, and hence poverty reduction, is a complex one. This is because while money and inflation can be positively correlated, inflation can either promote or retard economic growth, which is essential for poverty reduction. Empirical evidence shows that very low and high inflation is harmful for economic growth, but moderate inflation positively correlates with respectable growth rates. Again, what constitutes moderate inflation can vary across time and countries. Multi-country studies indicate that moderate inflation lies in the range of 10 percent to 15 percent.

Thus, a conservative monetary policy stance aimed at an inflation rate between 3 percent and 5 percent may run the danger of deflation, leading to a stabilisation trap. Moreover, in the presence of nominal rigidities or where wages cannot be lowered further as they are already too low, some inflation could enhance real wage flexibility, or help avoid liquidity trap problems. Therefore, a low inflation target could render an economy vulnerable to prolonged downturns in the case of adverse supply shocks when prices are sticky (IMF, 2005).

On the other hand, too lax an expansionary monetary policy may cause inflation to accelerate and harm economic growth. Thus, monetary policy can rely on Occum's razor for poverty reduction, namely the scientific principle that in explaining a thing no more

assumptions should be made than are necessary. Fortunately, the upper range of moderate inflation and the threshold inflation rate beyond which it can become harmful to the poor is quite high, between 35 percent and 40 percent.

There are further complications. First, the poverty reducing effect of growth depends on the nature of growth. If growth is capital- or skill-intensive, which causes inequality to rise, its impact on poverty reduction will be less than if growth is employment-intensive, which lessens inequality. The experience of South Korea and Indonesia shows that moderate inflation may be necessary to divert resources to labour-intensive activities, especially when nominal wages cannot be lowered for various reasons.

Second, the impact of inflation on poverty and inequality can be either negative or positive. Inflation erodes the purchasing power of current income; it also reduces the real value of financial debt. The net effect of inflation on poverty depends on the relative strength of income and wealth effects. Multi-country evidence reveals that inflation in the range of 10 percent to 15 percent does not adversely affect the average income of the poor. Moderate inflation is also found to stabilise employment. The employment and wealth effects on the average income of the poor are found to be pro-cyclical. That is, the net effect of monetary policy on poverty reduction depends on a number of elasticities, the precise values of which vary from country to country and over time.

Thus, while policymakers should guard against high inflation, a country may need moderate inflation to sustain economic growth and accelerate poverty reduction. This understanding is essential when there is excess capacity and persistently high unemployment or underemployment. The fixation on a single-digit inflation target cannot be justified by fear of inflation getting out of control once it goes beyond, say, 10 percent.

In sum, there is no empirical basis to fear that a moderately expansionary monetary policy, required to support fiscal expansion for poverty reduction and to break the stabilisation trap, will lead to high inflation. More importantly, fear of excesses cannot be a

basis for sound public policy. Excessive emphasis on a very low inflation target even in the face of negative output shocks implies the poor's lack of voice in the policymaking process.

IV Inflation-targeting and central bank independence: A critical appraisal²⁴

A review by Roger (2010) at the IMF summarised the success of two decades of IT as follows:

- Both inflation-targeting and non-inflation-targeting low-income economies experienced major reductions in inflation rates and improvements in average growth rates. Although the non-inflation-targeting countries continued to have lower inflation and higher growth than the inflation targeting countries, those that adopted inflation targeting saw larger improvements in performance.
- Both inflation-targeting and non-inflation-targeting low-income economies also experienced large reductions in the volatility of inflation and output, with the countries that adopted inflation targeting registering bigger declines, especially in inflation volatility.

One may note the following about the findings above. First, in terms of prevailing inflation and growth rates, non-IT countries do better than IT countries. Second, the larger improvement in IT countries is possibly due to the fact that they had higher median initial inflation (16% vis-à-vis 10% in NIT) and lower median initial growth rates (3% vis-à-vis 4.5% in NIT). Inflation declined in both IT and NIT countries, implying that central banks perhaps do not have to have an explicit quantitative target for inflation. Furthermore, there is strong evidence that the decline in inflation might not be due to IT itself, but rather to the general decline in world-wide inflation or to a simple reversion to a more normal inflation rate (see Ball and Sheridan, 2003).

Thus, despite much enthusiasm about IT, more recent empirical evidence of its impact on growth is less than impressive. For example, Brito and Bystedt (2010) used some advanced econometric tools to correct some major limitations of the previous analyses and

²⁴ This section draws on Chowdhury and Islam (2018)

found that IT actually resulted in lower output growth during adoption.²⁵ The reduction in output growth means that IT policies do seem to hinder economic growth, at least in the period studied. Moreover, if economic growth is slowed, then the rate of growth of potential output is also lowered.²⁶

The study by Ayres, et al. (2014) of 51 developing countries including 17 explicit inflation-targeters found that the impact of IT on growth was fairly limited. Any impact on growth was short-term, if present at all, indicating that inflation targeting was only beneficial in reducing inflation and not for stimulating economic growth. The control group they employed included only non-targeting countries with real GDP per capita which is at least as large as that of the poorest targeting country, and a population size at least as large as the least populated country in the targeting group.

Similarly, the survey of wider literature by Schmidt-Hebbel and Carrasco (2016) did not reveal evidence of generally lower long-term inflation in IT countries than in non-IT

²⁵ The Brito and Bystedt study focused on a panel sample of 46 developing countries (13 IT countries) between 1980 and 2006.

²⁶ That is, potential output depends on actual output. This is what one can expect from the 'learning by doing' effect within the endogenous growth model. When an economy operates at its potential, it creates more potential as working people become more skilled through learning on the job. The Keynesian acceleration effect also operates as business invests in capacity building as people's purchasing power rises with the rise in their income. On the other hand, when the policy framework keeps the economy under its capacity, it lowers the potential as investment remains depressed and people become deskilled through long-term unemployment.

Other ways in which IT may negatively affect the trajectory of growth and development include high interest rates, real exchange rates, and financial volatility. In many emerging and developing countries, maintaining very low inflation rates requires significant increases in the real interest rate (see Epstein, 2008). High real interest rates affect investment and may have negative consequences for growth and development. Moreover, in economies with relatively unrestricted capital mobility and reasonably developed capital markets, the high interest rates associated with IT often attract inflows of short-term portfolio investment. Such capital flows can lead to an appreciation of the real exchange rate, hurting exports and facilitating import penetration (See Galindo and Ros, 2008). Tradable sectors will be negatively affected by the appreciation, leading to a reallocation of resources to the non-tradable sector. If productivity levels, on average, are lower in the non-tradable sector, the outcome will be slower growth and delayed industrialisation. Additionally, the accumulation of stocks of short-term capital increases the risk of financial fragility. A rapid reversal of these flows can lead to a collapse of the currency and, in turn, a broader economic crisis, thereby placing the IT country in a fragile position.

countries. This is despite IT central banks being more hawkish, and their policy actions having larger weights on inflation variability than those of NIT central banks. Similar findings apply to other macroeconomic outcomes, including inflation volatility, output growth, and output volatility.

Thornton (2016) challenged previous favourable findings of IT regimes, that IT regimes experienced greater drops in inflation and GDP growth volatility than non-IT developing countries. He has found that the previous favourable results did not hold up in the context of a more rational and larger sample of developing countries after controlling for the comparability of monetary regimes. “In particular, adoption of an IT regime did not help reduce inflation and growth volatility in developing countries compared to the average experience with other monetary regimes and was no more advantageous in these regards than the adoption of a hard or crawling peg exchange rate regime” (Thornton, 2016, p. 145). Thus, Thornton believes a “less technically demanding monetary regime of currency pegging remains an attractive regime option for policymakers in developing countries”. Thornton’s study comprised panel data of 72 lower-middle-income and upper-middle-income developing economics, of which 14 adopted IT during 2003-2013.

Thus, it is not surprising that the empirical evidence on the performance of independent central banks is also mixed and sensitive to sample selection. For example, a more recent study of central bank independence by Garriga (2016) challenges the conventional wisdom about central bank reforms in the world, and finds that the sample selection may have substantially affected results of previous studies.²⁷ Garriga’s simple

²⁷ One influential early work on central bank independence is Cukierman et al. (1992). This covered 21 industrial and 51 developing countries, back to the 1950s if a central bank existed then. From this study, one cannot detect a clear systematic relationship between the index of legal independence and the average rate of inflation. Countries such as Belgium, France, Japan, and Norway, at the bottom of the scale in terms of legal independence, have average annual inflation comparable to the top-ranked Canada, Denmark, and the United States of America. Since independence in practice diverges from legal or formal independence, the study included the frequency of turnover of central bank governors and the specialists' perception of actual independence. Spain was found to have the highest turnover rate during 1950-89 (an average tenure of five

analyses show that the associations between CBI and inflation, unemployment or growth are very sensitive to sample selection.

The conditions required for the success of an inflation-targeting approach include the lack of fiscal dominance and the absence of any other objectives. None of these conditions appear to hold in most developing countries. As the IMF survey (IMF, 2015) revealed, in addition to price stability, more than two thirds of central banks in low- and lower-middle income developing countries had two or more objectives, ranging from attempting to support economic growth and, at times, to explicitly targeting financial sector development and credit growth, and exchange rate stability. Moreover, the revenue base of these countries is very low and their capital markets are underdeveloped. This forces most developing countries to borrow from the central bank. These countries also have quasi-fixed exchange rate systems that are needed to prevent imported inflation and to attract short-term portfolio foreign capital. Thus, money supply responds to developments in the balance of payments.

In general, there are several other features that weaken developing countries' capabilities of adopting IT. First, lower-income/ least developed countries in particular, have lower levels of macroeconomic stability and institutional development than advanced economies. They also have weaker internal technical capabilities and shallower domestic

years) and the lowest turnover rate was found in Iceland (only one change in 29 years). Yet Iceland had the highest average annual inflation rate (32 percent in the 1980s). The average inflation rates in countries such as France, Ireland, Luxembourg, and the UK, whose central banks were perceived to have less actual independence, were comparable with those in Australia, Denmark, and Finland which were ranked high in terms of the perceived actual independence of their central banks. Italy, which was ranked fourth in terms of perceived actual independence of its central bank, had double-digit inflation. This cross-country regression reflected the lack of a clear systematic relationship when the apparent outlying case of Iceland is dropped from the sample.

A review by Debelle et al. (1998, p. 6) of the performance of seven industrial countries that allowed their central banks to pursue a pre-announced inflation target (or a band) concludes, "Still, it is probably too early to declare that the inflation-targeting approach has succeeded in delivering lower inflation, given that inflation has also generally declined in many industrial countries that have not adopted inflation targeting. ...Comparing unemployment in the inflation-targeting countries with that in other major industrial countries shows that the average unemployment rate rose significantly in the early 1990s in the inflation-targeting countries..."

financial markets to conduct open-market operations. Second, the transmission channels of monetary policy are uncertain due to less developed domestic financial markets. On the other hand, as noted earlier, countries with higher financial development have experienced a weakening of the long-run association between money growth and inflation.²⁸ Thus, central bank interest rate policy is a less effective instrument for IT in developing countries, regardless of the level of their financial development. Third, goods and labour markets often work less efficiently and flexibly, so that domestic inflation is less responsive to monetary policy actions. Fourth, the IT framework presupposes that all inflation is a monetary phenomenon (demand-pull type). But prolonged inflationary pressure can persist in developing countries due to supply shocks, including higher imported prices. In particular, food price shocks have a larger impact on inflation because the CPI weight of food is larger, and hence can spill over to higher wage demand. Fifth, exchange-rate volatility is higher in emerging developing market economies (EDMEs), and large exchange-rate shocks are reflected in higher domestic inflation variability because devaluation-to-inflation pass-through coefficients are higher in EDMEs. These limitations are recognised even by the IMF (IMF, 2006, 2015).

Leaving aside the above technical arguments, a broader issue of democratic governance and technocratic insulation of institutions is at stake. An IT framework and central bank independence as its associated institutional setting are seen by their advocates as necessary to enhance the credibility of monetary policy by removing discretionary

²⁸ Besides financial developments, there can be other factors that may contribute to the weakening of the long-run money-inflation relationship. The breakdown of the relationship between money supply and inflation may be due to a number of factors. First, as in the case of Japan, it may be due to the fact that people hold excess cash instead of spending – a situation known as a ‘liquidity trap’. This can happen if people expect prices to fall further or they still fear losing jobs. Second, when output is far below its potential, excess spending by people to get rid of excess cash can be accommodated without raising the price. Third is the availability of a large range of consumer products from cheaper production locations such as China, India, Viet Nam or Bangladesh. Therefore, monetary expansion may not translate into significantly higher prices. Instead, it translates into significantly higher prices for capital assets, particularly real estate and equities.

intervention of politicians. But one wonders, credibility to whom – to the citizens or financial markets?

Milton Friedman (1962, p. 219) noted that “... money is too important to be left to the central bankers”. Two decades later, he elaborated his concerns as follows:

The political objections are perhaps more obvious than the economic ones. Is it really tolerable in a democracy to have so much power concentrated in a body free from any direct political control? ... One economic defect of an independent central bank ... is that it almost invariably involves dispersal of responsibility... Another defect ... is the extent to which policy is ... made highly dependent on personalities... A third technical defect is that an independent central bank will almost invariably give undue emphasis to the point of view of bankers... The defects I have outlined constitute a strong technical argument against an independent central bank (Friedman, 1985, p. 8).

Stern and Stiglitz (1997, p. 18) made the point more succinctly:

The degree of independence of the central bank is an issue of the balance of power in a democratic society. The variables controlled by the central bank are of great importance and thus require democratic accountability. At the same time the central bank can act as a check on government irresponsibility. The most successful economies have developed institutional arrangements that afford the central bank considerable autonomy; but in which there is a check provided by public oversight, an oversight that ensures the broader national interest is taken into account in the final decisions.

In this respect, following DeBelle and Fischer (1994), it is worth highlighting the distinction between ‘goal independence’ and ‘instrument independence’. The former refers to the central bank's ability to set the inflation target independently of the government and the latter is its independence in the choice of instruments, and hence relates to the central bank's

day-to-day operations. No central bank can be entirely independent of a democratic government although it can be entirely free in choosing its instruments. Several authors (e.g., Auerbach, 1985; Frey and Schneider, 1981) have pointed out that even the Federal Reserve System and the Bundesbank, which are considered highly independent in practice, follow the monetary policy of their governments. “In general, central banks with inflation targets are directly accountable to the government. Regular testimony to the parliament and the publication of annual reports have been the main vehicles of this accountability” (Debelle et al., 1998, p. 6).

However, most developing countries are new democracies. And several of them are under threat of reversals or have already become more illiberal. A central bank with both goal and instrument independence may choose a very low inflation target that can undermine a nascent democracy by delaying economic recovery. Furthermore, the argument that an elected government cannot be trusted with the responsibility of managing the economy goes against the principle of a representative democracy.

The above issues became prominent in Indonesia when the new central bank law (enacted in 1999) granted Bank Indonesia (BI) both goal and instrument independence. This caused open disputes between the BI and parliament on a number of occasions on the appropriateness of the monetary policy stance. The national planning agency (BAPPENAS, 2001, p. 27) also expressed concerns about the mismatch between the monetary policy stance of the BI and the fiscal policy of the government and noted, “Monetary policy aimed at lower interest rates...lower domestic debt servicing costs is now attractive for...budgetary reasons...Higher interest rates increase the interest cost on the large, outstanding stock of [debt]...This significantly complicates the task of implementing monetary policy.”²⁹

²⁹ An Indonesia country study by UNDP observed, “It is difficult to ease monetary policy and achieve some consistency between fiscal and monetary policies when the Bank of Indonesia (BI) remains relatively autonomous – and wedded to tight monetary policies. While BI should have autonomy in determining its policy instruments, its objectives should be subject to public discussion and oversight. By setting low inflation

Furthermore, under the current legislation of BI independence, neither the president nor the parliament can remove the governor of BI before the expiry of his or her tenure. This led to a much-publicised stand-off, when President Wahid wanted to remove the governor after he was indicted in a corruption case. The governor refused to resign even when the court found him guilty.

On the issue of inflation targeting and central bank independence, the Cambodia country report by the UNDP said the following:

...a number of elements of the IMF policy package adopted in Cambodia are...biased against growth-inducing policy...The central bank is unable to lend money to the government...Anti-inflationary monetary policy thus places an important restriction on the potential for using fiscal policy as a means for inducing economic growth...Thus, if the central bank is to accept responsibility for price stability (and the stability in the external value of the national currency) it has to have the operational autonomy and authority **within the larger political system** to discharge that responsibility (quoted in Chowdhury, 2005, p.34; emphasis added).

In sum, inflation targeting and central bank independence are not merely technical matters, as the orthodoxy tends to believe. It is pertinent at this juncture to point to the observation made by a central bank insider, Guy Debelle (1996, p.1):

An increase in the inflation aversion of the central bank, while always reducing inflation rate, may reduce welfare because of its adverse effects on output and government spending. The net welfare effect is shown to depend on the weights in the welfare functions of the fiscal authority and society. Thus, increasing the central bank's inflation aversion is not necessarily a free lunch.

as its overriding objective, BI can compromise the achievement of other objectives, such as growth of income and employment generation, which most people value highly, in addition to price stability" (Quoted in Chowdhury, 2005, p. 34).

Thus, the essence of IT is embedded in the so-called social welfare function that includes both inflation and economic growth. As the preceding discussion shows, the high unemployment that is required to bring the inflation rate to a single-digit level or to keep the inflation rate in the range of 3 percent to 5 percent has significant and systematically regressive effects on the distribution of income. The poor fare worse when unemployment rises and persists, especially when there is no adequate safety net or social security system. At the same time, the real value of their net debt rises with falling inflation. Hence, the poor have reason to be more averse to unemployment and less averse to inflation than the elite in society. As the poor lack a voice and representation, the choice of weights for inflation and unemployment in the social welfare function raises an important issue of conflicts and the political economy of public policy (see Hibbs, 1976; Gramlich and Lauren, 1984; and Bowles, 1994).

V Concluding remarks

As we summarise our discussion on monetary policy frameworks and institutional settings for inclusive and sustainable development, it is very pertinent to highlight a few observations by the protagonists of inflation targeting and central bank independence. For example, the IMF (2006, p. 17) observed,

“Pushing inflation too low – say, below to 5 percent – may entail a loss of output and seigniorage revenue, suggesting a need for caution in setting very low inflation targets in low-income countries. These countries tend to be subject to larger output volatility and more pronounced price shocks, and program design should take these attributes properly into account. In particular, inflation targets should be set so as to help avoid risks of an unintended concretionary policy stance.”

The World Bank’s Growth Commission (World Bank, 2005) and the IMF’s Independent Evaluation Office (IEO, 2007), critiqued the IMF’s rigid prescription of low single-digit inflation usually at less than 5 percent. Both found the obsession with an inflation rate of 5 percent or less had no empirical basis; it rather had significant output/employment costs. Distinguished participants at a conference (7-8 March 2011) at the IMF, including both the Managing Director of the IMF and the Director of the IMF’s Research Department have noted that the IT paradigm that was dominant in the pre-crisis period needs to be revisited.³⁰

Stanley Fischer (former Deputy Managing Director of the IMF), a leading central banker and macroeconomist, noted,

“...I doubt that there is any particular monetary policy framework that is suitable for all countries for all times. The central bank’s choice of monetary policy framework

³⁰ IMF Survey online (March 8, 2011).

should depend on the objectives it aims to achieve, on the challenges that the economy faces, and on the structure of the financial markets and the economy in which it operates. And it is likely that the monetary policy framework will change over time as the domestic economy and the international financial system develop” (Fischer, 2015, pp. 9-10).

In light of the above, six general principles for developmental monetary policy can be laid down:

1. Monetary policy should have the twin objectives of reasonable price stability and orderly economic growth (as recognised in the IMF’s Article of Agreement). This recognises both price and output stabilisation roles. That is, this avoids both too-conservative and too-expansionary monetary policies. If needed, inflation in the range of 10 percent to 15 percent can be tolerated from the point of view of avoiding a stabilisation trap, especially when inflation is caused by supply shocks.
2. Even when the inflation rate remains moderate, monetary authorities should monitor the inflation rates of items (in particular, food), which dominate the consumption basket of the poor. Monetary policy should support the fiscal authority in stabilising the prices of food and essential items. Monetary authorities should also monitor asset price movements while expanding credit in order to prevent asset price bubbles which can destabilise the financial sector and distort investment.
3. Monetary authorities should also carefully analyse sources of inflation, and must avoid ‘knee-jerk’ responses to any sign of inflation.
4. Achieve consistency with the fiscal policy stance. Safe expansionary monetary policy within the above guidelines will allow governments to borrow from the central bank to finance growth enhancing employment-intensive public infrastructure investment programmes. Private investment is unlikely to be crowded out; rather, both domestic and foreign investment will be encouraged by demand growth and the benefits of an improved physical infrastructure. This means demand expansions will be matched by

expansions of supply. Thus, well-coordinated expansionary monetary and fiscal policies can keep inflation within safe limits and promote growth and employment.

5. Develop directed credit programmes for employment-intensive SMEs, agriculture and rural industries. This is essential for enhancing financial inclusion as they are more dependent on bank credits than larger enterprises, which have better access to capital markets (see Box 1 on the experience of the central bank of Bangladesh). Even when overall credit growth needs to be restrained, directed credit to SMEs and rural-agricultural sectors must be maintained to avoid asymmetric adverse impacts on employment. This will protect the income of the poor and offset the likely adverse impacts of cyclical downturns on inequality.
6. Central banks should be given autonomy to choose and implement the instruments of monetary policy within the overall economic objectives dictated by the development strategy of the government. This means a participatory policymaking process so that the trade-off parameter between inflation and unemployment (growth) reflects the concerns of citizens more widely, and not of the elite or multilateral agencies.

The above monetary policy principles are internally consistent. For example, when monetary policy is assigned to two objectives – orderly growth (employment-intensive) and maintaining moderate inflation – it needs at least two independent instruments according to the Tinbergen rule.³¹ While central banks can use the traditional instrument of interest rates (or such instruments as reserve requirements) assigned to keep inflation at a moderate level, specialised credit regulation can be a second instrument directed to employment-intensive growth. Specialised directed credit programmes have an added advantage of supported accelerated structural transformation.

Of course, specialised and directed credit programmes can create distortions in the financial market and are prone to rent-seeking activities. However, the cost of distortions

³¹ That is, the number of independent instruments must be at least equal to the number of goals to be achieved.

must be weighed against the cost of market imperfections in the financial sector that retard structural transformation. For example, Jaramillo and Schiantarelli (1996) found that directed credit programmes in Ecuador accounted for approximately 50 percent of the total credit in the economy in 1984 and thus substantially compensated for the inability of the financial system to generate funds for investment. This explains why total credit in the economy rose during the 1970s and early 1980s, and peaked (reaching 23 percent of GDP) in 1983 despite financial repression.³² On the other hand, quite often it is found that in the countries that have abandoned specialised credit programmes as part of financial sector reforms, there has been a massive shift of resources from the rural and small scale sectors to urban and commercial activities.³³ This had adverse effects on GDP as well as poverty.

Central banks can consider a number of options in designing specialised credit programmes. In India, all banks (public and private) are required to lend at least 40 percent of their net credit to the 'priority sector'. If banks fail to do so, they must lend to specific government agencies at very low interest as a penalty. Studies by Banerjee and Duflo (2004) found that most banks complied with the regulation and the programme contributed significantly to expansion in agriculture and small scale industries.

Alternatively, the central banks can use some 'carrot-and-stick' measures by combining Indian-type penalties with incentives such as asset-based reserve requirements,

³² Beginning in 1984, Ecuador eliminated or scaled down directed credit programmes and removed administrative controls on interest rates as part of financial liberalisation. Since then the supply of credit declined drastically with the contraction of state-provided loanable funds and reached as low as 9 percent of GDP in 1990. The firm level debt structure data show that together with the decline in total credit, the share of long-term loans fell from 12 percent in the early 1980s to 8 percent in 1992. The growth rate of real long-term credit was negative for most years. The firm level data also show that the percentage of directed credit was much higher for longer-term maturities prior to liberalisation reforms. This percentage declined from 59.3 percent in 1985 to 35.9 percent in 1990. The percentage of directed short-term credit declined from 31.1 percent in 1985 to 3.3 percent in 1992. Decline in access to long-term credit negatively affected firms' productivity. In particular, it adversely affected firms' ability to acquire improved technology.

³³ See Chowdhury (2002) for findings in Bangladesh. Professors Muhammad Yunus and Wahiduddin Mahmud, two leading economists, have raised concerns about commercial banks' urban leading from rural deposits (*The Daily Star*, 2 June 2005, p. 1).

support for pooling and underwriting small loans, or utilising the discount window in support of employment-generating investments (see Pollin, 1993, 1995, 1998). As Epstein (2002) observed, asset-based reserve requirements are an effective tool for creating incentives for banks to invest in socially productive assets. For example, based on well-researched findings of employment elasticities, central banks would list a set of employment-generating investments, and a lower reserve requirement would apply for the deposits invested in these activities than the deposits invested in speculation or Treasury Bills.

Central banks can also take steps to create liquidity and risk-sharing institutions for loans to small businesses with promises to generate employment but do not have adequate access to the credit market. For example, central banks can provide financial and administrative support for asset-backed securities, which would take loans to small businesses, and for other employment-intensive activities. Central banks can bundle these investments and sell them as securities on the open market. Finally, central banks can open special discount windows to offer credit, guarantee or discount facilities to institutions that are on-lending to firms and cooperatives that generate employment.

Box 1: Bangladesh Bank: An agent of inclusive and sustainable development

Bangladesh Bank, the central bank of Bangladesh, has been at the forefront of developmental central banking. It has come out of its conventional narrow shell and spearheaded sustainable and inclusive finance in support of the government's strategies to achieve Sustainable Development Goals (SDGs). Thus, it directed finance to priority areas such as:

- Agriculture
- Cottage-micro-small and medium enterprises (CMSMEs)
- Women entrepreneurs
- Green business and industries.

It introduced:

- Mandatory enterprise risk management (ERM) guidelines for banks;
- Sector specific policies and reporting system;
- Separate SME Department and Prudent SME Credit Guidelines.

There was no standard rule book for these initiatives nor were there best practice experiences. Bangladesh Bank has been bold enough to “try many small things, monitored what works or does not, and asked why”.

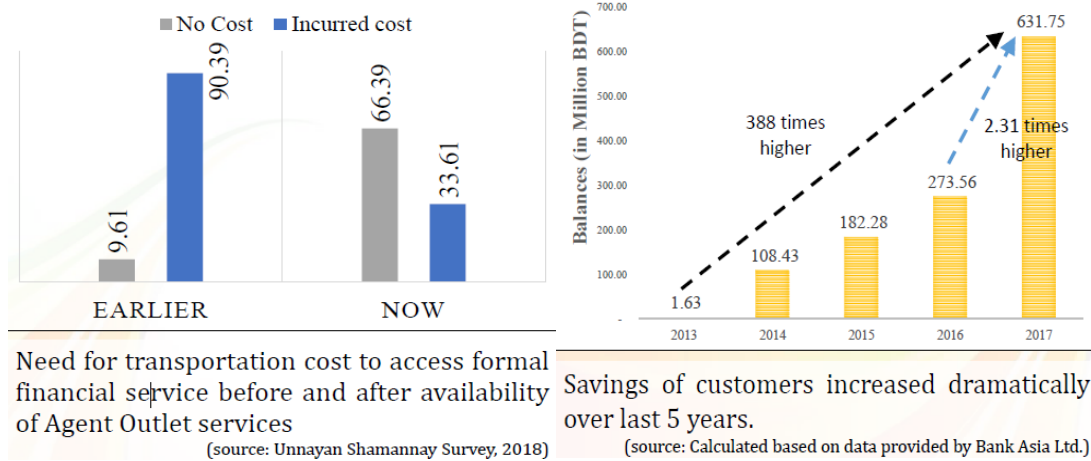
Highlights of Bangladesh Bank's achievements are:

- Almost 18 million 10 taka (0.12 \$) “no-frill” bank account for marginal people
- Agro-credit increased by 130% in ten years (over \$2.6 billion disbursed in FY 2017-18)
- \$433 million credit to over 1.6 million sharecroppers who were previously unbanked
- 4.5 million SMEs received \$93.5 billion in between 2010 and 2017
- 0.6 million new SMEs received \$12.5 billion
- 0.42 million women SMEs received \$3.3 billion between 2010 and 2017
- Of the refinance scheme fund for CMSMEs, 15% is reserved for women
- Each bank has a ‘Women Entrepreneur Development Unit’
- Sustainable Finance Department, Green Banking Unit, & Green Banking Guidelines.
- \$24 million refinance scheme for environment-friendly endeavours
- \$48 million refinance scheme for environment-friendly brick production (ADB funded)
- \$200 million ‘Green Transformation Fund’ for export oriented RMG and Leather industries

Some other financial inclusion initiatives:

- Bank-MFI linkage; local banks are now the third largest external source of funds for micro finance institutions (MFIs)
- \$24 million refinance scheme for no-frill account holders
- 1.5 million school banking accounts, \$170 million deposited
- No-frill accounts for street children (no. of accounts 4,684, amount deposited \$41 thousand)
- Significant improvement in access to banking, through expansion of bank branches and ATMs since 2013 as well as of ‘Agent Banking’ (an individual acting as an appointed agent of a commercial bank)

The availability of Agent Banking reduced the cost of access to formal financial institutions and boosted savings.



Source: Presentation by Dr. Atiur Rahman, former Governor of Bangladesh Bank, at the World Savings and Retail Banking Institute (WSBI) 2nd Workshop on Rural Financial Inclusion in Dhaka, 03 October 2018.

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