POLICY BRIEFS SERIES

Bangladesh's Inflationary Bias

Malcolm F. McPherson
Bangladesh Public Administration Project

DECEMBER 2024

HARVARD Kennedy School
RAJAWALI FOUNDATION INSTITUTE FOR ASIA

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About the Author

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Key Points

Bangladesh has had rates of inflation, that is, sustained increases in the general level of prices, that have been well above international norms for decades.

This "inflationary bias" has been accommodated (or enabled) by excessive rates of monetary expansion.

Most local explanations of inflation focus on short-term factors—supply and demand shocks both locally and abroad. Long term monetary accommodation is rarely mentioned.

Persistent inflation has had multiple adverse effects—widespread distortions in asset holding, financial regression, diminished export growth and diversification, increased income inequality, and slow economic growth. Another effect has been the loss of trust by Bangladesh's citizens in the authority's capabilities to manage the economy in the national interest.

Reducing (or eliminating) the inflationary bias will require major sustained reductions in the rate of monetary growth. An excellent start would be to place the public sector on a cash budget. This should be complemented by floating the exchange rate, removing interest rate controls, and strengthening financial supervision.

Implementing these measures will require fundamental improvements in the competencies and orientation of officials in government ministries and public agencies responsible for fiscal, monetary, exchange rate, and debt management.

Introduction

In this policy note, inflation "is most conveniently (and neutrally) defined as a sustained rising trend in the general price level, or—what is virtually the same thing—a rate of expansion of money income greater than the growth of real output."[1] Economists focus on inflation as the *sustained* upward trend of all prices[2] to distinguish it from episodic changes in the prices of individual goods and services. These price changes, for example, in food, building material, transport, and fuel, result from demand or supply shocks that typically reverse themselves.[3]

The challenge in this policy note is to look beyond the transitory factors in Bangladesh that have moved *relative* prices up (or down) to identify the longer-term factors that generate and sustain general price increases and to explain why those factors endure. I do this by examining the causes and correlates of inflation in Bangladesh and discussing the consequences for the country's longer-term growth and development. I also suggest how the country's "inflationary bias" might be eliminated.

Background

Chronic inflation in Bangladesh has a long history. Over the period 1971 to 1991, inflation measured by the GDP deflator averaged 15.6% per annum (p.a.) with a peak rate of 80.6% in 1975. From 1992 to 2023, it averaged 6.3% with a peak of 19.1% in 1996.[4]

Notwithstanding the spike in 1996, inflation since 1992 would generally be considered as "low." Yet, since 2000, inflation has been higher—in all but one case much higher—than in Bangladesh's major trading partners, including the United States, the European Union, China, Japan, and the developing nations of East and South East Asia.[5]

Official entities such as the Planning Commission's General Economics Division, the Ministry of Finance, and Bangladesh Bank (BB); international organizations like the International Monetary Fund (IMF), the Asian Development Bank, and the World Bank; and private think tanks and academics offer numerous explanations for inflation. Among the factors (or "causes") identified are external shocks (food, oil, rising transport costs), the price-setting power of local cartels (or "syndicates"), the "flow-through" of exchange rate depreciation, multiple demand-pull and cost-push elements, war-related sanctions, adjustments in administered prices, inflation expectations, and monetary policy, especially as it relates to "monetary expansion." Annex 2 has examples and their sources.

A feature of all these explanations is that they describe factors (or processes) that caused the inflation rate to diverge, above and below a predetermined, "expected," or "planned" rate. One of these was BB's "target range" of 5%–6% p.a.[6] Others were the "expected" inflation rates upon which the projections of the various Five-Year Plans (FYPs) were based: 5% (5th FYP), 7% (6th FYP), 5.5% (7th FYP), and 4.8% (8th FYP).[7]

Missing from each of the above discussions is an explanation of why inflation in Bangladesh has been and remains so enduringly elevated for the last five decades.

Reasons for the Inflationary Bias

With inflation rates so high for so long, one-off factors such as periodic price spikes and demand-pull and cost-push shocks, or even "exchange rate depreciation pass-through," are inadequate and misleading explanations. At best, they highlight unanticipated factors that jolt prices during selected subperiods. None of them explains the *persistent* upward pressure on the general price level that Bangladesh has experienced. There have also been few attempts to relate inflation to the persistently high absolute *and* relative growth rate of the money supply or other financial variables.[8] Some sources cited in Annex 2 refer to "monetary expansion" and "monetization of the deficit" as a factor during selected subperiods. However, none of them mentions the general background of excessive monetary accommodation[9] that characterizes the Bangladesh authority's long-term management of the macroeconomy.[10]

This is a curious oversight since the evidence has been hiding in plain sight.[11] Based on World Bank data, the broad money supply increased by an annual average rate

of 16.4% p.a. from 1974 to 2023.[12] Other financial variables rose rapidly during this period,[13] while the economy grew by 5% p.a.

It is useful to understand the implications of such a high rate of monetary (and financial) expansion on key macro variables, especially inflation. A common (and convenient) way that economists connect money and inflation is to decompose what is known as the "Fisher Equation" of the Quantity Theory of Money.[14] The details, provided in Annex 1, show that the inflation rate relates to the rate of monetary growth, the growth rate of real income (or output), and the "velocity of circulation of money." The latter is a measure of the institutional factors within the financial system and economy more broadly that reflect the degree to which the local money (taka) facilitates transactions, provides liquidity, or stores value.

Although the Quantity Theory has been fundamental to economics for most of the last three centuries,[15] it does not "prove" that money causes inflation. Nor does it demonstrate, as the crude monetarist dictum holds, that "inflation is always and everywhere a monetary phenomenon."[16] Voluminous evidence shows that the link between money and inflation is disrupted, deflected, or filtered in multiple ways, including price controls, subsidies, external influences, fixed price contracts, wage freezes, expectation effects, debt limits, "fiscal rules," "nominal anchors," and financial innovation.[17]

Notwithstanding these qualifications, the Quantity Theory affirms that there can be no inflation—of the rate and nature experienced by Bangladesh since the 1970s—independent of the actions of those who control the supply of money in the economy.[18] The decomposition in Table 1 illustrates the point. Although there is some within-period variation, the overall pattern is clear from the 1974–2023 data in the last row. Inflation was ~ 8% p.a., stimulated by sustained monetary growth of ~16.4%, but counteracted by reduced monetary velocity as taka were more widely used within the economy, and economic growth which raised the demand for money.

Table 1. Bangladesh: Decomposition of Quantity of Money Identity (Cumulative Change % p.a.)

Period	Prices	Money Supply	Velocity	Real Output
1974–1992	10.8	18.7	4.3	3.6
1992–2002	4.6	14.7	5.9	4.2
2002–2012	6.0	15.3	3.9	5.4
2012–2023	6.6	11.3	–0.4	5.4
1974–2023	7.9	16.4	3.5	5.0

An interesting feature of the data was the decline in the velocity of circulation during 2002–12 and its absolute decline between 2012 and 2023, the latter indicating financial

regression. As discussed elsewhere, it resulted from a marked deterioration in macro-economic management in Bangladesh during these periods.[19]

The core conclusion from these data is that Bangladesh's inflationary bias has resulted from monetary expansion exceeding the compensatory capacities of factors—financial deepening and economic growth—which would have productively employed *at constant prices* the annual injections of money within the economy. The bias persists.[20]

Consequences

The high inflation in Bangladesh since the early 1970s has adversely affected the economy. The most severe of these effects are distorted patterns of asset holding, arrested financial development with recent financial regression, weak diversification and diminished growth of exports, income inequality, and lower overall economic growth. A further adverse effect is the limited trust of citizens in the authority's capacity to manage the economy in the national interest.

Persistent inflation redirects the behavior of asset holders toward activities that hedge against inflation. These include the hoarding of commodities, purchases of real estate, gold and foreign exchange, and shifting wealth abroad. Savings and investment are affected to the extent that interest rates, which BB continues to control, do not reward postponed consumption or compensate for uncertainty about future rates of inflation. These effects—low returns on savings and uncertain returns on investment—keep both savers and investors focused on short-term options. Financial development reflected in the expanded variety and use of financial assets—money, government bills and bonds, commercial paper, and so on—remains constrained. The data above show that since 1974, Bangladesh has experienced some financial deepening but, by international standards, its financial system has remained exceedingly shallow. More important, there has been financial regression over recent years, with the money-to-GDP ratio declining from 64.5% in 2015 to 50.6% in 2023.[21]

Over the last two decades, Bangladesh has recorded minimal progress in both the structure and volume of exports. Despite regular calls within the FYPs to "diversify" exports,"[22] there has been little of note since the mid-2000s as the real exchange rate, due to BB manipulation, became progressively overvalued. The result has been a major slowdown in the expansion of the ready-made garment (RMG) sector, which contributes more than 80% of Bangladesh's exports.[23]

There are too few reliable data to indicate whether inflation worsened income inequality, though the macroeconomic mismanagement that permitted inflation to remain so high for so long has produced several outcomes that have accentuated Bangladesh's high degree of inequality.[24] The first is that inflation has been a "tax" that the poor can do little to avoid. This tax diminishes the value of their monetary holdings, and they lack real assets to help them hedge against price rises. They have limited bargaining power to

ensure that their real wages do not fall. Inflation also systematically erodes the purchasing power of any remittances that they receive from workers abroad, and the erosion has been compounded by BB's exchange rate manipulation. Finally, notwithstanding Bangladesh's success in rolling out micro-finance to the poor and underserved segments of the population, poor typically pay market-based (i.e., inflation-adjusted) rates on what they borrow due to their lack of collateral. The rich in Bangladesh rarely confront these matters. Indeed, many of them benefit especially through their favored access to low-cost credit and loans from state-owned banks, which they regularly fail to repay.[25]

Without direct statistical verification, it is difficult to make the case that Bangladesh's inflationary bias has reduced the rate of economic growth.[26] Yet, one can readily construct a counterfactual where, with a much smaller budget deficit, lower inflation, a commensurately deeper financial system, the more effective mobilization of public and private savings, an efficient allocation of public expenditure, higher local value of remittance income, more robust growth in a diversified array of exports, a lower need to divert resources into inflation hedges, and fewer local resources directed toward imports, the rate of economic growth could have been higher.

In addition, there is voluminous international experience to suggest that persistent inflation has kept Bangladesh from growing at significantly higher rates than 5% from 1974 to 2023 and 5.4% from 2002 to 2023. The principal lesson is that inflation that remains continuously out of line with international (and trading partner) norms is de-stabilizing. An obvious reason is the real overvaluation of the exchange rate, while another has been Bangladesh's annual cycle of budget compression. This is driven by the authority's "informal" limit on the budget deficit of roughly 5% of GDP to compensate for its perennial incapacity to raise revenue domestically and the need to keep the rate of debt creation and, perhaps more important, the growth rate of the money supply under control.[27]

While the above consequences highlight specific dimensions of the issue created by persistent inflation, more broadly, the phenomenon represents a failure of governance.[28] None of the various governments (military, single party, caretaker) saw the need or had the capacity to systematically and sustainably reduce the rate of monetary growth so that local inflation could roughly match that of Bangladesh's trading partners. Evidence of this incapacity was the institutionalized nature of the budget deficit.[29] While the official literature referred to the efforts of the various governments to "control" the deficit, the fundamental problem was that none would pursue policies—raise revenue, reform the financial system, end budget compression—that would reduce (or eliminate the deficit) and free the economy of its debilitating effects. It is therefore no surprise that a key element driving Bangladesh's recent weak economic performance and social turmoil has been the loss of trust by citizens in the authority's ability to manage the economy in the national interest.[30]

Remedies

Bangladesh can never reduce or eliminate its inflationary bias without sharp reductions in the growth rate of money and other domestic financial assets. The persistent background of "monetary accommodation," driven by the perennial budget deficit, has kept inflation high relative to international norms.

Two long-postponed reforms are essential: fiscal reform to provide the country with a functioning budget, and financial reform to induce local asset holders to rebuild their confidence and trust in the local currency and financial instruments.

Major changes in Bangladesh's fiscal and monetary affairs would result if the government put itself on a cash budget, floated the currency, and liberalized interest rates. To do this, the skills and competences of officers in key agencies will need to be upgraded. Ministry of Finance officials will have to learn how to produce and implement a functional (or as the World Bank has stated, a "credible") budget.[31] This budget would be based on realistic assessments of revenues and expenditures, with activities monitored in ways that ensure that expenditures match revenues, at least until inflation diminishes sharply and local asset holders become confident enough to believe that inflation will remain low. Additionally, BB officials would have to desist from their counterproductive manipulation of the foreign exchange and local money markets while also acquiring the competences to monitor and supervise, without fear or favor, the financial agencies for which they are responsible.

These shifts in administrative orientation—a credible budget and an effectively supervised financial system—will provide the "enabling environment" for market-driven improvements in resource allocation within Bangladesh. It would mean that control of the budget deficit would no longer drive fiscal policy, an overvalued exchange rate would no longer distort the tradable goods sector, remitters would be fully and fairly rewarded for sending their earnings home, locals would no longer waste time and misdirect resources to hedge against inflation, and potential investors (local and foreign) would no longer have to deal with exchange rate misalignment, multiple cascading taxes, and overlapping forms of indulgence. It would also mean that state-owned commercial banks would no longer be grant-making organizations to the better-off segments of society through their incapacity to recover their loans, and movements in interest rates would serve their key purpose of efficiently mobilizing and allocating resources rather than rewarding those with access and punishing those who hold domestic financial assets.

While none of this will be easy, there is plenty of comparative experience from which Bangladesh can draw lessons and guidance. Cash budgets, fiscal anchors, floating exchange rates, and liberalized financial markets have been widely used together with enhanced supervision, accountability, and transparency to "rescue" countries as widely diverse as Bolivia, Chile, Zambia, Indonesia, Portugal, Greece, and numerous others.

Concluding Comments

To remove, or substantially reduce, Bangladesh's inflationary bias, its policymakers will need to implement measures that more closely align the growth rate of the country's nominal income to that of its real output. Relevant global comparisons suggest that a gap of 2% is (or has been) the norm. Making this change on a sustainable basis will not be easy. Substantively reducing the growth of the money supply requires complementary actions that sustainably reduce the budget deficit by matching public expenditure to the domestic revenue that the government can raise, reforming the financial sector so that public sector borrowing taps private savings and not central bank credit, rationalizing exchange rate management to stimulate export growth and export diversification, and efficiently allocating capital and recurrent expenditures through the budget to support inclusive growth and development. In a word, removing or materially reducing Bangladesh's inflationary bias will require a major reorientation and profound improvement of macroeconomic management.

This task should start immediately. An excellent beginning would be for policymakers to act upon the commitment that the former government made when it borrowed $4.7 billion from the IMF in February 2023, aimed at "restoring macroeconomic stability and preventing disruptive adjustment." These are the short-term goals that the interim government could use to motivate efforts to promote recovery and reform the economy.

Annex 1: Linking Money Growth and Inflation

The introduction defined inflation as "virtually the same thing [as] a rate of expansion of money income greater than the growth of real output." This point is demonstrated by letting P represent the price level, Y money (i.e., nominal) income, y real output, and g(..) growth rate. Multiplying Y by 1 (i.e., P/P) and substituting y for Y/P gives Y = P.y. Converted to growth rates, this yields

$$g(Y) = g(P) + g(y).$$

After rearranging, we obtain g(P) = g(Y) – g(y) affirming that inflation, g(P), occurs when the growth of money income, g(Y), exceeds the growth of real income, g(y).

This link between inflation and income is useful, but it does not connect inflation to money. This can be done using the above identity by defining broad money[32] as M and v as the velocity of circulation of money, and substituting M.Y/M = M/v for Y in the identity g(P) = g(Y) – g(y).

That is, g(P) = g(M/v) – g(y), which can be expanded to yield g(P) = g(M) – g(v) – g(y).

This shows that inflation (i.e., a sustained increase in prices) is connected to the growth rate of money with adjustments for the effects of intervening institutional and economic factors represented by g(v) and g(y). As noted in the text, this is the "Fisher Equation" for the Quantity Theory of Money.

Annex 2: Commentary on Inflation

In his 2023 budget speech, the Minister of Finance stated that

> the Russia-Ukraine war situation has had the biggest impact on inflation, government spending, balance of payments, foreign exchange reserves and exchange rates . . . [with] . . . the international supply chain . . . disrupted by the war and war-centric sanctions. At that time, the price of food products, fertilizers and fuel increased a lot in the world market. Developed countries . . . gradually raised policy interest rates in an attempt to control unprecedented inflation.

He continued, "These changes in the global environment are also affecting our economy. It is noteworthy that inflation in Bangladesh was limited to 5–6 percent in the pre-war decade. However, the increase in import costs due to post-war global inflation and the depreciation of the country's foreign exchange rate led to a surge of average inflation to 9.5 percent in August 2022."[33]

The 2024 budget speech identified some of the same elements but specifically attributed "spiraling inflation" to supply chain disruptions and devaluation of the taka.[34]

Successive FYPs offer differing perspectives. The 5th FYP reviewed inflation during the 4th FYP period (FY91–FY95), noting that it varied from 1.4% in 1992/93 to 5.2% in 1994/95. The "lower inflation rate" resulted from "the availability of consumer items including foodgrains . . . and the money supply was contained, particularly during the first three years of the Plan period."[35]

Assessing the 5th FYP's experience, the 6th FYP indicated that inflation had become "a major concern"[36] due to the "exorbitant rise in food and fuel prices in the world markets and accommodating monetary expansion." In its review of 6th FYP performance, the 7th FYP (FY16–FY20) attributed the accelerating rate of inflation that had occurred to the "highly expansionary monetary policy."[37] To counteract this trend, the 7th FYP stressed that the government would tighten "inflation management" with the aim of reducing annual price increases to 6% by 2020.[38] According to the 8th FYP, this goal was achieved due to "monetary and fiscal prudence . . . [which] . . . allowed domestic liquidity to be managed." In fact, inflation fell "to 5.5% by FY19."[39] The 8th FYP projected that inflation would continue to decline. That did not happen.

A review by BB in July 2024 of the causes of inflation lists most of the factors above. It noted, "While global prices have moderated due to improved supply conditions and stable food and energy prices . . . Bangladesh's market has not fully adjusted. This is primarily due to rigid domestic prices, increases in fuel and energy costs, and significant depreciation of the local currency."[40]

The World Bank's two most recent *Development Updates* cover the same ground. The April 2023 update noted that "inflation accelerated from an average of 6.1 percent in FY22 to an average of 8.7 percent in the first eight months of FY23 as international

commodity prices rose and the taka depreciated."[41] The April 2024 update stated that "inflation remained elevated, with contributions from both external and domestic factors" and "Headline CPI inflation has remained above 9 percent since August 2022, driven by persistently rising food and non-food prices."[42] The Bank identified several contributing factors: "Continued shortages of foreign exchange resulting in curtailment of key imports, depreciation of the taka against the US dollar, increases in the domestic administered prices of gas, electricity, and petroleum products offset lower international commodity prices." It also noted that the "expansion in domestic credit with monetization of the fiscal deficit contributed to the persistent demand pressures."[43]

Country reports by the IMF in 2023 and 2024 offered a similar perspective (IMF 2023b, 2024a). The "recent developments" section of the December 2023 report asserted that "headline [CPI] inflation reached a decade high of 9.9 percent year-on-year (y-o-y) in August 2023, reflecting both recurrent cost-push shocks from high and volatile food and fuel prices as well as the pass-through from the Taka depreciation."[44] The June 2024 report noted that "inflation remains above BB's target range of 5–6 percent. In April 2024, the headline inflation rate was 9.7 percent (y-o-y), nearing its highest point in a decade. While food inflation decelerated from its peak level (above 12 percent in FY23Q2) to 10.2 percent (y-o-y), non-food inflation picked up to 9.3 percent." The report continued, "High inflation levels were mainly due to persistently strong high inflation expectations and the anticipated depreciation of the exchange rate ahead of the recent devaluation."[45]

Notes

1. Johnson (1973, p. 325). The equivalence is demonstrated in Annex 1.
2. This point is reflected in other definitions: "a sustained rise in the general price level" (Pearce 1989, p. 202); the "persistent tendency for prices and money to increase" (Black 1997, p. 225); and "inflation is the process of continuously rising prices, or equivalently, or a continuously falling value of money" (Parkin 1998, p. 832).
3. The pattern is typical. A maxim among agricultural specialists is that the "best cure for high prices is high prices." The reason is that farmers respond to high prices by increasing production and/or diverting products from alternative uses. World food price increases are also moderated by the complementary production seasons in the Northern and Southern hemispheres. Retooling and repurposing in the industrial sector have a similar effect. A recent example was the COVID-19-related response to the surge in demand for protective clothing, ventilator equipment, rapid self-tests, and vaccines.
4. World Bank World Development Indicators (WDI) file (accessed August 2024). An alternative measure is the CPI (consumer price index); both series move together. The CPI includes prices of imported goods, while the GDP deflator reflects price movements in domestic products and services. World Bank data show that over the period 1987–2023 (the longest set of mutually comparable series), the two series varied by year, but the rate of increase (6.4% p.a.) was the same.
5. Over the period 2000 to 2023, when annual average GDP inflation in Bangladesh was 6.7%, it averaged 2.3% (the US), 2.5% (the EU), 2.4% (the UK), 3.3% (China), 1.2% (Singapore), 2.3%

(Thailand), 1.9% (South Korea), and –0.2% (Japan). India's inflation was slightly lower (i.e., 5.7%) than in Bangladesh. The only other country with which Bangladesh had significant trade is Indonesia – its annual inflation rate was 8.2% (WDI databank, accessed August 2024).

6. Reported in IMF (June 2024, p. 7).
7. For context, actual CPI inflation during the 3rd and 4th FYPs (1985–1995) were 9.8% and 4.5% p.a., respectively. Data are from 5th FYP (Government of Bangladesh 1997, Sec. 1.2.26, p. 9, Sec. 4.5.3, p. 73; Sec. 4.11.4, p. 77; Table 4.16, p. 88); 6th FYP (General Economics Division 2011, Annex Table 3.5, p. 97); 7th FYP (General Economics Division 2015, Table 2.1, p.30, p. 60); and 8th FYP (General Economics Division 2020, Table 3.4, p. 64).
8. These included net foreign assets and net domestic assets, which are the fundamental "formation" factors that, together with "other items net," comprise the money supply.
9. This term is widely used in the literature to describe a central bank's "policy of allowing the supply of money to expand in line with the demand for it" (Black 1997, p. 2). "Accommodating monetary policy" is also associated after the fact with "validated inflation" (Pearce 1986, pp. 4, 439).
10. The scholar Afrin (2013) is a notable exception. Basing his analysis on what he described as the "fiscal theory of inflation" he noted that "persistent fiscal deficits create inflation, when deficits are financed by either borrowing from the central bank through printing money or issuing a large number of government debt instruments and those instruments end up in the hands of the central bank through open market purchases."
11. Hul (2023) had the opportunity to focus on the long-term monetary growth that has accommodated the high rate of inflation in Bangladesh but did not. Instead, his analysis reflected the results of the Fund's Quarterly Projection Model, which is derived from "…selected stylized features of the Bangladeshi economy and key characteristics of BB's monetary policy framework" (p. 3). Within this context, the model produced much of what BB had determined had driven inflation, namely, "hikes" in fuel prices, the exchange rate pass-through, and cost-push factors. An interesting feature of Hul's analysis is that it concentrated on the "monetary policy stance . . . needed to bring inflation to the authorities' target range over the medium term" (p. 6). From Figure 4 in his work, this "target range" was ~6%. Missed in the whole exercise is the damage to the economy of five decades of chronic inflation and the recognition that reducing inflation to BB's "target rate" of inflation is irrelevant to the economy's recovery and future development. More manipulation, as envisioned in Hul's account of the bank's policy options, will only delay the country's recovery. In doing so, it will reinforce the lack of trust among Bangladesh's citizens in both BB's capabilities and that of national authorities to act in the national interest.
12. The year 1974 is the first data point for money supply. For reference, the *average* annual rate of inflation from 1974 to 2023 was 9.2%. As the table in the text shows, the cumulative compound rate was slightly lower.
13. From note 8, the formation factor, net domestic credit, rose rapidly as well. It increased from Tk 1.47 billion in 1974 to Tk 2.87 trillion in 2023, a cumulative growth rate of 10.9% p.a. (WDI, accessed August 2024; IMF 2024a, Table 4, p. 33).
14. This "quantity equation of money" was a key feature in Irving Fisher's 1911 analysis of the "purchasing power of money."
15. The idea can be traced back at least to the contributions in the 18th century by David Hume and Henry Thornton. The theory was formalized by Irving Fisher (noted above) and restated by Milton Friedman as "a theory of the demand for money and not a theory of the aggregate response to monetary change" (Friedman 1956; Johnson 1973, p. 64).

16. This quote, from Milton Friedman, is often inappropriately abbreviated. The original quote (which Friedman adjusted several times) was "inflation is always and everywhere a monetary phenomenon in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output" (Friedman 1970).
17. See Bernanke (2005), Sill (2011), Williams (2012), and Doyin and Ikechukwu (2013). Evidence countering this proposition was the failure of the massive expansion of the money supply associated with the "quantitative easing" by central banks across the globe since the mid-2000s to produce the "runaway inflation" predicted by the proponents of the monetarist doctrine (Gabriels 2023).
18. This point is confirmed by research showing that most potent means by which governments and central banks can ensure that money is not directly linked to inflation is an appropriate mix of fiscal and monetary policies (Schnabel 2022). The IMF's Independent Evaluation Office (2024) revealed that IMF policy advice to member countries now broadly reflects this perspective.
19. See companion policy notes "Budget Compression in Bangladesh" (November 2024) and "Exchange Rate Management in Bangladesh" (November 2024). Exchange rate interventions became increasingly counterproductive, and budget compression was intensified to contain the budget deficit in the face of the government's declining capacity to mobilize revenue.
20. Recent data from BB show that the April 2023 to April 2024 (CPI) inflation rate was ~11%. The IMF DataMapper reports 2024 CPI as 9.7% (accessed from IMF Country website October 2024).
21. Data from World Bank WDI (accessed August 2024) and IMF (2024a, Tables 2, 4, pp. 30, 33).
22. See 6th FYP (General Economics Division 2011, pp. 3, 26), 7th FYP (General Economics Division 2015, pp. 15, 186, 198), and 8th FYP (General Economics Division 2020, ch. 2, and pp. 211, 224).
23. Evidence of this slowdown and the declining share of exports over time is widespread. The World Bank WDI and IMF (2024a, Table 1, p. 29) reveal that the share of exports in GDP was 7.6% in 1993. It rose to 12.3% in 2000, 20.2% in 2012, and declined to 11.6% by 2023. The growth rate of exports over the period 1992 to 2023 averaged 12.7% p.a. The bulk of that growth was in the subperiod 1992 to 2012, when exports grew by 16.9% p.a.. From 2012 to 2023, the growth rate was 5.4% p.a. Besides growing slowly, exports (which, as noted earlier, are primarily from the RMG sector) have failed to diversify. In addition to the references in the FYPs cited above, the need for export diversification has been extensively discussed (Titumir and Kamal 2013, Sec. 3; Berg et al., 2021; Hussain and Basu 2022; Ali and Mufti 2023; Raihan 2023; World Bank 2023, pp. 24–8; Razzaque, Dey and Rabi 2024). For its part, the IMF has raised the issue repeatedly (IMF 2013, Boxes 4, 5, pp. 13–4; IMF 2016, par. 11, p. 8 and Fig. 1, p. 27; IMF 2018, Fig. 1, p. 21; 2019, Sec. D, p. 15; IMF 2023b, Sec. D, par. 32, pp. 17–8). Most recently, the 2024 country report noted "Export Diversification is key to achieving sustainable long-term growth," adding that "Bangladesh's trade profile has remained relatively unchanged over recent decades, characterized by concentrated export and product profiles" (IMF 2024a, p. 17, par. 32).
24. By two measures, inequality in Bangladesh has worsened over the period 1991 to 2022. The agriculture/nonagriculture gap has increased in both relative and absolute terms. In 1991, agricultural GDP per worker was $418, while nonagricultural GDP per worker was $1,617. Corresponding data in 2022 were $1,857 and $8,768. That is, the relative income gap rose from 3.8 in 1991 to 4.7 in 2022, while the corresponding absolute gaps increased from $1,199

and $6,911. The other measure is the income shares of the top 10% of the population relative to the lowest 10%. In 1991 the ratio was 5.7; in 2022, it was 7.8. (World Bank WDI, accessed August 2024).

25. Bangladesh has had a major issue with nonperforming loans (NPLs) for decades. The IMF program in 2012 had conditions related to their elimination (IMF 2013, Box 3, p. 12; Table 2, p. 49, and the analysis on pp. 18–20). Fast-forward to the IMF program of 2023 (IMF 2023a, par. 25, p. 16, Table 11, p. 44). The condition was repeated because the problem was never resolved. Indeed, the most recent report suggests that "the systemwide NPL ratio is likely understated" (IMF 2024a, p. 9, par. 9).
26. Johnson (1965) discussed whether inflation promoted or hindered economic growth. He concluded that appropriately managed, moderate inflation was an advantage in mobilizing resources and easing adjustment that was often blocked by structural rigidities. Nonetheless, the rate of inflation he envisioned for these purposes was considerably lower relative to international norms than the rate which has persisted in Bangladesh. An econometric model linking "economic growth and macroeconomic fundamentals" (Anik and Biplob 2019) used data from 1987 to 2017 to regress GDP on the real interest rate, money supply, real exchange rate, and index of "trade openness." The authors derived a positive "short-term causal" relationship from trade openness and money supply to economic growth (GDP). While the authors to their credit noted several issues that affected their study—lack of time, limited data, and no "previous knowledge about research" —they failed to highlight its principal weakness. Their single equation approach was incapable of measuring appropriately the interrelations between money and interest rates and real exchange rates and trade. Without an examination of the inter-relations and feedback effects of these variables, no clear conclusion can be drawn regards the strength of the positive relation they find or even if it is positive.
27. The mechanics follow from the monetary formation table referred to earlier (notes 8 and 12).
28. The key features and references are provided in a companion policy note, "Bangladesh's Tax-to-GDP Ratio" (November 2024). The etymology of the term governance reflects wise public management or administration. For Hill and McPherson (2004, pp. 416–17), good governance is reflected in their emphasis on "a high degree of tax compliance" and the "efficient allocation of government expenditure." For Baland, Moene, and Robinson (2010, p. 4602), it is evident in "the capacity of the government to effectively formulate and implement sound policies." And for the United Nations, it relates to "government effectiveness and efficiency" (UN Office on Drugs and Crime, 2018, Module 2). Each of these interpretations would have served Bangladesh well if they had resulted in policies that reduced the budget deficit, lowered the growth of the money supply, and eliminated the country's inflationary bias.
29. The available data show that all Bangladesh governments have run budget deficits continuously from FY73 (9.3% of GDP) to FY24 (~4.6% of GDP). During the 1970s, the estimated average deficit exceeded 8% of GDP and for the 43-year period FY81 to FY24, the average was 4.6%. Sources include Government of Bangladesh (1997, Table 1.12, p. 12; i.e., 5th FYP), Mahmud (2004, Table 1), the Ministry of Finance's Finance Division's data portal (www.mof.portal.gov.bd./files/), and Table 1 of the IMF's Article IV reports from November 2011 through June 2024.
30. While Basu's (2021) overall assessment of Bangladesh's performance in the decades up to 2020 was upbeat, he indicated that citizen trust in government is problematic. He specifically noted that "a successful economy needs a minimal amount of trust among its citizenry, and a strong moral compass that draws lines the people refuse to cross" (p. 37).

31. World Bank (2022, pp. 14–5).
32. Other variables such as reserve money, net domestic assets, or net foreign assets, or total financial assets, might be relevant in particular circumstances. Broad money is the most widely studied variable.
33. Kamal (2023, par. 13, pp. 18–9).
34. "Although the disruption in the supply chain in the domestic market is the main reason for spiralling [sic] inflation, the other reason is the devaluation of taka against foreign currency" (Ali 2024, par. 15). Paragraph 32 repeated the point: "inflation in the country remains persistently above 9 percent primarily due to import-induced price increases and disruptions in the domestic supply chain."
35. Government of Bangladesh (1997, Sec. 1.2.26, p. 9).
36. General Economics Division (2011, Box 3.1, p. 89). For context, the rate of inflation, which had become a "concern" during the 5th FYP, averaged 4.5 percent p.a. (see General Economics Division 2011, Box 1.1, p. 25).
37. General Economics Division (2015, Sec. 1.5, p. 14).
38. General Economics Division (2015, Sec. 1.5.1, p. 14).
39. General Economics Division (2020, Sec. 1.5.3 and Fig. 1.6, p. 19). As shown in the policy note on budget compression, the idea that "fiscal prudence" played a role is not credible. The 7th FYP aimed for a tax-to-GDP ratio of 14.1% by FY20 (General Economics Division 2020, Table 1.13, p. 69), but it was 7.9%. What planners described as "fiscal prudence" was the continuation of budget compression.
40. Bangladesh Bank (2024, p. 11). Explaining why inflation "has remained above 9 percent since June 2023, [reaching] . . . a peak of 9.7% in June 2024," the Bank noted that "Global inflationary pressures and subsequent tightening of monetary policies worldwide drove this inflation surge. Internal factors such as inflexible price adjustments and persistent domestic currency depreciation also contributed" (p. 12).
41. World Bank (2023, p. 6).
42. While I noted above that the average rates of CPI and GDP inflation were the same (note 4), the recent rate of CPI inflation has exceeded that of GDP inflation by 2 percentage points. For FY21 to FY24, the former averaged 7.5% p.a. and the latter 5.5% p.a. (IMF 2024a, Table 1, p. 29).
43. World Bank (2024b, p. 10).
44. IMF (2023b, p. 5).
45. IMF (2024a, p. 7).

References

Afrin, Sadia. 2013. "Fiscal Deficits and Inflation: The Case of Bangladesh." CEU Working Paper No. 1303, Bangladesh Bank.

Ali, Abdul H. M. 2024. "Smart Bangladesh Following the Path of Sustainable Development. National Budget Speech 2023–25." Ministry of Finance, Government of People's Republic of Bangladesh.

Ali, Imran, and Ali Mufti. 2023. "Export Diversification Challenges and Opportunities for Bangladesh." South Asian Association for Regional Cooperation in Partnership with the Friedrich Naumann Foundation.

Anik, Tanvir Hasan, and Md. Nurul Kabir Biplob. 2019. "Economic Growth and Macroeconomic Fundamental: Evidence from Bangladesh." *Global Journal of Management and Business Research: C Finance* 19, no. 2.

Baland, Jean-Merle, Karl Ove Moene, and James A. Robinson. 2010. "Governance and Development." In *Handbook of Development Economics*, vol. 5, edited by Dani Rodrik and Mark R. Rosenweig. Elsevier-North-Holland.

Bangladesh Bank. 2024. "Monetary Policy Statement July–December 2024." Bangladesh Bank.

Basu, Kaushik. 2021. "The Bangladesh Economy: Navigating the Turning Point." *Innovations, Technology, Governance and Globalization* 13, no. 1, 2: 28–40.

Berg, Achim, Harsh Chhaparia, Saskia Hedrich, and Karl-Hendrik Magnus. 2021. "What's Next for Bangladesh's Garment Industry, After a Decade of Growth?" McKinsey & Company. https://www.mckinsey.com/industries/retail/our-insights/.

Bernanke, Ben S. 2005. "Inflation in Latin America: A New Era?" Remarks at the Stanford Institute for Economic Policy Research Economic Summit, Stanford University, California, February 11.

Black, John. 1997. *A Dictionary of Economics*. Oxford University Press.

Doyin, Salami, and Kelikume Ikechukwu. 2013. "Is Inflation Always and Everywhere a Monetary Phenomenon? The Case of Nigeria." *International Journal of Business and Finance Research* 7, no. 2: 105–14.

Friedman, Milton. 1956. "Studies in the Quantity Theory of Money: A Restatement." In *Studies in the Quantity Theory of Money*, edited by Milton Friedman. University of Chicago Press.

Friedman, Milton. 1970. "Counter-Revolution in Monetary Theory." Wincott Memorial Lecture, Institution of Economic Affairs, *Occasional Paper*, no. 33.

Gabriels, Elia. 2023. "Inflation Is Not Always and Everywhere a Monetary Phenomenon." European Student Think Tank. www.esthinktank.com.

General Economics Division. 2011. *Sixth Five-Year Plan, FY2011–FY2015: Accelerating Growth and Reducing Poverty*. Bangladesh Planning Commission, Ministry of Planning.

General Economics Division. 2015. *Seventh Five-Year Plan, FY2016–FY2010: Accelerating Growth, Empowering Citizens*. Bangladesh Planning Commission, Ministry of Planning.

General Economics Division. 2020. *8th Five-Year Plan, July 2020–June 2025: Promoting Prosperity and Fostering Inclusive Development*. Bangladesh Planning Commission, Ministry of Planning.

Government of Bangladesh. 1997. *The Fifth Five-Year Plan, 1997–2002*. Planning Commission, Ministry of Planning.

Hill, Catharine, B., and Malcolm F. McPherson, eds. 2004a. "Macroeconomic Management and Governance in Zambia." In *Promoting and Sustaining Economic Reform in Zambia*. Harvard University Press.

Hul, Yaroslav. 2023. "Taming Inflation: Policy Options and Trade-Offs." IMF Country Report No. 23/410, International Monetary Fund.

Hussain, Muhammad Imam, and Ritu Basu. 2022. "Bangladesh in Transition." IMF Country Report No. 22/72.

Independent Evaluation Office. 2024. "Draft Issues Paper IMF Advice on Fiscal Policy." International Monetary Fund.

IMF. 2012. "Bangladesh Request for a Three-Year Arrangement Under the Extended Credit Facility." IMF Country Report No. 12/94.

IMF. 2013. "Bangladesh Staff Report for the 2013 Article IV Consultation and Third Review Under the Extended Credit Facility and Request for Modification of Performance Criteria." IMF Country Report No. 13/357.

IMF. 2016. "Bangladesh 2015 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 16/27.
IMF. 2018. "Bangladesh 2018 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 18/158.
IMF. 2019. "Bangladesh 2019 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 19/299.
IMF. 2023a. "Bangladesh Request for an Extended Arrangement Under the Extended Fund Facility, An Arrangement Under the Extended Credit Facility, and an Arrangement Under the Resilience and Sustainability Facility—Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 23/66.
IMF. 2023b. "Bangladesh: 2023 Article IV Consultation, First Reviews Under the Extended Credit Facility Arrangement, Arrangement Under the Extended Fund Facility, and the Resilience and Sustainability Facility Arrangement, Requests for a Waiver of Nonobservance of a Performance Criterion, and Modifications of Performance Criteria-Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 23/409.
IMF. 2024a. "Bangladesh: Second Reviews Under the Extended Credit Facility Arrangement and the Arrangement Under the Extended Fund Facility, and Requests for Rephasing of Access, a Waiver of Nonobservance of a Performance Criterion, and Modifications of a Performance Criterion, and Second Review Under the Resilience and Sustainability Facility Arrangement-Press Release; Staff Report; and Statement by the Executive Director for Bangladesh." IMF Country Report No. 24/186.
IMF. 2024b. "IMF Executive Board Concludes the Second Review Under the Extended Credit Facility, Extended Fund Facility, Resilience and Sustainability Facility for Bangladesh." IMF Press Release No. 24/234, June 24.
Johnson, Harry G. 1965. "Is Inflation the Inevitable Price of Rapid Development or a Retarding Factor in Economic Growth." Paper presented at the Third Rebovoth Conference on Fiscal and Monetary Problems in Developing States, Israel.
Johnson, Harry G. 1973. "Inflation: A 'Monetarist' View." In *Further Essays in Monetary Economics*, edited by Harry G. Johnson. Harvard University Press.
Kamal, A. M. H. Mustafa. 2023. "Towards Smart Bangladesh: Sustaining the Development Achievements in a Decade and a Half. National Budget Speech 2023–2024." Ministry of Finance, Government of People's Republic of Bangladesh.
Mahmud, Wahiduddin. 2004. "Macroeconomic Management: From Stabilization to Growth?" *Economic and Political Weekly* 39, no. 36: 4023–32.
Parkin, Michael. 1998. "Inflation." In *The New Palgrave: A Dictionary of Economics*, vol. 2, E to J, edited by John Eatwell, Murray Milgate, and Peter Newman. Macmillan Press.
Pearce, David W. 1986. *The MIT Dictionary of Modern Economics*, 3rd ed. MIT Press.
Raihan, Selim. 2023. "Informal Institutions, the RMG Sector, and the Present Challenge of Export Diversification in Bangladesh." In *Is the Bangladesh Paradox Sustainable? The Institutional Diagnostic Project*, edited by Selim Raihan, François Bourguignon, and Umar Salam. Cambridge University Press.
Razzaque, Mohammad Adur, Barun Kumar Dey, and Rabiul Islam Rabi. 2024. "Expanding and Diversifying Exports in Bangladesh: Challenges and the Way Forward." *ADB Briefs* no. 293, Asian Development Bank.

Schnabel, Isabel. 2022. "Finding the Right Mix: Monetary-Fiscal Interaction at Times of High Inflation." Keynote speech by member of the executive board of the European Central Bank, Bank of England Watchers' Conference, London, November 24.

Sill, Kevin. 2011. "Inflation Dynamics and the New Keynesian Phillips Curve." *Business Review* Q1: 17–25.

Titumir, Rashed Al Mahmud, and Mustafa Kamal. 2013. "Emerging Trends: Exigency or Expediency?" Unnayan Onneshan.

UN Office on Drugs and Crime. 2018. *Knowledge Tools for Academics and Professionals*. Module 2: Corruption and Good Governance. UN Office on Drugs and Crime.

Williams, John C. 2012. "Monetary Policy, Money and Inflation." Federal Reserve Bank of San Francisco, presentation to the Western Economic Association International, San Franciso, July 2.

World Bank. 2022. *Bangladesh Development Update Recovery and Resilience Amid Global Uncertainty*. World Bank Group.

World Bank. 2023. "Bangladesh Development Update Special Focus Trade Reform: An Urgent Agenda." World Bank.

World Bank. 2024a. "Strong Financial Sector, Fiscal and Monetary Policy Reforms Will Be Critical to Sustain Bangladesh's Growth Momentum." Feature story, World Bank.

World Bank. 2024b. "Bangladesh Development Update Special Focus: Strengthening Domestic Resource Mobilization." World Bank.

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