

Deficit Budget as a Hidden Tax: An Application in Bangladesh

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Abstract

Since the 1970s, Bangladesh has faced persistent budget deficits, and this paper aims to examine their influence on the economy, exploring how deficit financing, such as borrowing from banks, can lead to inflationary pressures, while also uncovering the hidden costs of budget deficits and offering recommendations to promote economic growth and stability, ultimately aiding policymakers in making informed decisions to address these challenges. This paper uses the secondary data to analyze the data and data was collected from 2000 from 2023. Bangladesh has experienced budget deficits, implemented expansionary monetary policies, and maintained relatively stable inflation, with the government aiming to tackle these challenges by improving fiscal management, enhancing the tax structure, and reducing reliance on borrowing. The study shows that expansionary monetary policies in the country have contributed to significant growth in the money supply (M2) over the past few decades. Despite these pressures, inflation in Bangladesh has remained relatively stable, averaging around 5.5percent from 2000 to 2023.

Keywords: Expansionary monetary policies, Fiscal policy, Bond Market, Economic Indicators

JEL Codes: E31, E62, H62

1. INTRODUCTION

Any country's macroeconomic goal is to become price solidity and a country's pecuniary authority sets appropriate policies to switch any persistent rise in the overall price level (Bangladesh Bank, 2014). However, inflation generally arises because policymakers manage the high engagement in a country and uphold fiscal deficits (Bangladesh Bank, 2014). Insistent budget deficits intensify inflation when any country is funded by borrowing money from internal sources, issuing money, and private financing which can be a great basis for inflation (Bordo et al., 2021). The FTPL advocates that more government debt increases household wealth, floating demand for goods, and services, and burden on prices (Akingbade U. Aimola, 2021). In many developing nations, confirming robust economic growth is given superiority over short-range price stability goals, important to trade-offs between the two objectives (Balaci & Suh, 2024). Bangladesh faced tenacious inflationary pressure after independence in 1971 due to high money supply but recorded good inflation performance during the 1990s. Recent price increases encounter policymakers with an incomplete tax base & immature bond market (Ye et al., 2021). The government depends on bank borrowing to finance abundant of the annual deficit. Rising prices straining policymakers with incomplete taxes & weak bond market. Govt borrows from banks to fund much deficit (Bangladesh Bank, 2014). Inflation can also reallocate income and wealth, eventually affecting economic motion and resource distribution in the country. Policymakers fight as prices increase with low taxes & bond market. Govt borrows from banks for great deficits. Budget deficits' financing influence on the economy deliberate to analyze the properties of monetary and fiscal policy on the economy

(University of Zimbabwe, 2015). Studies on the inflation and budget deficit association show diverse results using time series and panel data examination in the inflation literature. Some studies have originated no momentous relationship between inflation and budget deficits, while others advise scenario is weakly connected to budget deficits except in periods of high inflation. Some other studies investigating inflation sources do not comprise the government budget steadiness in their model.

The country's macro goal is price constancy, but inflation may occur by arranging high employment and handling fiscal deficits (Batoool et al., 2024). Examining if government budget deficits because inflation is vital in Bangladesh as high prices can destroy long-term economic growth. Rising prices may corrode growth forecasts, highlighting the need for investigation (Abdal et al., 2023) Identifying factors for increasing prices is vital. Inflation lowers money's buying power, reduces living values, and complicates economic planning. Battling inflation needs an understanding of its fundamental cause. Studying budget deficits' financing and impact on the economy is vital to analyzing monetary and fiscal policy effects. This investigation helps recognize the economy's complete performance (Unoiversity of Zimbabwe, 2015).

2. LITERATURE REVIEW

Inflation and deficit budget are two significant economic indicators. Generally, when the administration has a budget deficit, it may lead to an intensification in inflation. The reason is that the administration needs to plagiarize money to fund the deficit. This plagiarizing can lead to an intensification in the money supply, which in turn can lead to an intensification in prices (Koyuncu, 2014). Conversely, a budget surplus is linked with lower inflation since the administration does not need to plagiarize as much money, decreasing the money supply and, therefore, inferior prices (Crowley & Hudgins, 2022). Thus, it is significant for administrations to preserve a balance between budget deficits and inflation. Choudhury and Parai (2006) found that budget deficits and money supply growth have a significant effect on inflation in Peru, based on a rational expectations macro model for the period 1973-1988.

Karras (2019) found that budget deficits do not cause inflation, and are instead negatively correlated with economic growth. Their research used annual data from 32 countries to analyze how deficits affect money growth, inflation, investment, and growth. Honroyiannis and Papapetrou (1997) demonstrate that budget deficits have an indirect effect on inflation in Greece, but no direct effect. They studied the relationship for the period 1957–1993 and found evidence of the indirect effect. Ozgun (2000) reveal that budget deficits and inflation rates in Turkey had a positive relationship in the long run. Additionally, causality analysis determined that these two variables had a two-way relationship, meaning that both budget deficits and inflation rates affected each other.

A study by Habibullah (2011) budget deficits have an inflationary effect in Asian developing countries. Using annual data from 1950-1999, the results of the study showed a strong long-run relationship between budget deficits and inflation in thirteen countries. The novelists of the study Bakare (2014) a long-term relationship between budget deficits, inflation, and money supply in the Nigerian economy using the Johansen Cointegration test. Results indicated that inflation is dependent on budget deficits and monetary expansion. The study by Koyuncu (2014) low rate of inflation was constructive for any economy, as it intensifications the acquiring power of the population, thereby raising their standard of living. To evaluate the

relationship between inflation, broad money supply (M2), and bank deposit (BD), the author used a linear reversion model, several econometric tools, and Turkish quarterly data from 1987Q1 to 2014Q4. The results indicated that both BD and M2 were necessary to trigger inflation and that together they caused higher inflation in Turkey during the study period.

Research by Fischer (2011) found that a 1percent improvement in the budget balance to GDP ratio leads to a 4.25percent decrease in inflation across 94 countries. However, the effect was not significant in low-inflation countries or low-inflation episodes in high-inflation countries. Catao (2005) demonstrate that inflation is directly related to the budget deficit scaled by narrow money (M1), allowing for nonlinearity in the relationship of inflation with the deficit. Their verdicts were stronger support for the FTPL than earlier studies and were predominantly strong for unindustrialized countries. However, they found that fiscal deficits had no significant constructive impact on long-run inflation in countries with a history of low single-digit inflation. This recommends that fiscal deficits may not have the same inflationary impact in all countries.

The IMF paper (International Monetary Fund, 2007) highlights that money creation and inflation inertia are the most significant factors driving inflation in Bangladesh, rather than supply-side shocks such as food shortages or oil price hikes. The exchange rate was found to be the only notable supply-side factor influencing inflation. This specifies that budget deficits can influence inflation if monetized over a continuous period. To decrease inflation, the paper recommends that the monetary established order should emphasize preventive money creation and supervisory inflation inertia.

On the fiscal sideways, fiscal deficits should be reduced and should not be monetized. The learning on the long-standing association between budget deficits and inflation shows some interesting outcomes. The study determined that deviations in the public sector borrowing obligation have long-lasting effects on inflation, while the budget deficit itself does not have long-lasting importance on inflation in the long term. This means that the budget deficit is not fundamentally a direct source of inflation, but it can affect it in the short term. The study also shows that while the budget deficit could have short-term impacts on inflation, it could have long-term effects through the public sector lifting obligations. This is because the public sector lifting compulsion is the total amount of funds that the government wants to lift to finance its expenditure.

Thus, a complex public sector plagiarizing obligation can increase to higher levels of inflation in the long run, as the supervision has to advance more money to finance its payouts. The study presented that budget deficits can have momentous influences on inflation, but not fundamentally in the long term. Therefore, it is momentous to consider the public sector plagiarizing responsibility when assessing the influence of budget deficits on inflation.

3. METHODS

This study examines the relationship between budget deficits and inflation in Bangladesh, specifically exploring the mediating roles of external financing and note issuance. A quantitative approach was employed to analyze secondary data collected from 2000 to 2023, aiming to understand how deficit financing impacts inflation and broader economic stability.

The methodology involved data collection, variable selection, econometric modeling, and hypothesis testing to explore these relationships.

The study adopted a quantitative research design, using time-series econometric analysis to assess the effect of budget deficits on inflation. A causal-comparative approach was employed to determine if deficit financing served as a hidden tax, contributing to inflationary pressures. Secondary data were sourced from several authoritative institutions, including Bangladesh Bank, the Ministry of Finance, the Bangladesh Bureau of Statistics, and international organizations like the World Bank and the IMF. Data collected spanned from 2000 to 2023 and included variables such as budget deficits (as a percentage of GDP and in absolute terms), money supply (M2), inflation rate (CPI), external debt, and note issuance by the central bank.

In terms of variables and their measurement, the study defined key variables as follows: the budget deficit was measured as the fiscal deficit as a percentage of GDP (sourced from the Ministry of Finance); inflation rate was based on annual CPI (sourced from the Bangladesh Bureau of Statistics); money supply (M2) was measured by broad money growth (sourced from Bangladesh Bank); external debt referred to total foreign debt in million USD (sourced from the World Bank/IMF); and note issuance referred to central bank credit to the government (sourced from Bangladesh Bank Reports).

The econometric analysis to test the hypotheses included multiple regression and mediation models. The baseline regression model examined the direct relationship between budget deficits and inflation, while controlling for variables such as money supply and GDP growth. To assess whether external debt and note issuance mediated this relationship, the study applied the mediation approach outlined by Baron and Kenny (1986) and used Sobel's test for further validation. The mediation process involved two steps: first, the relationship between the deficit and the mediators (external debt or note issuance) was analyzed, and second, the relationship between the mediators and inflation, while also accounting for the budget deficit. For data analysis, descriptive statistics such as mean, standard deviation, and range were computed for key variables. A trend analysis was conducted to visually represent the variables over time.

3.1. Conceptual development and hypothesis development

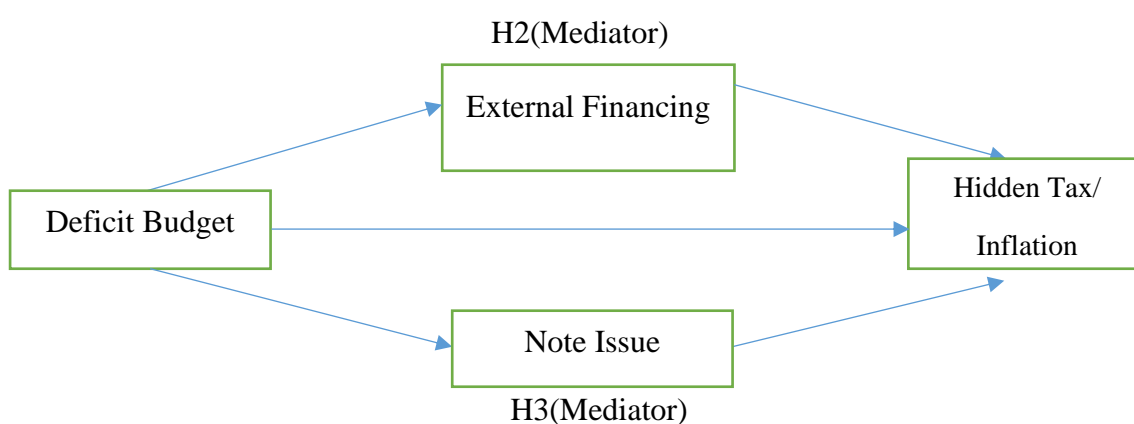
3.1.1. Deficit budget and Inflation/hidden tax

A deficit budget arises when a government devotes more money than it obtains in revenue, resulting in a deficit that must be financed over-borrowing. (Andrew Loo, 2023) Inflation, on the other hand, is a constant increase in the general price level of goods and facilities in an economy over a while (Martin Höflmayr, 2022). There is an optimistic relationship between scarcity budgets and inflation, as government deficits can lead to inflationary burdens in an economy (Banerjee et al., 2022). When the government runs a deficit budget, it may finance its expenditure by borrowing from the central bank or by delivering bonds to investors. This raises the money supply in the economy, foremost to an increase in collective demand, which can result in sophisticated prices for goods and services (Chouraqui & Price, 2021). Additionally, deficit spending can lead to an upsurge in public investment, which can lead to an upsurge in production costs and thrust prices (Jordi Galí et al., 2004). When a government devotes more than it earns, it can lead to an upsurge in the demand for goods and services. If the supply of goods and services leftovers unchanged, the increase in demand can lead to an increase in prices, as businesses can increase prices to capture the enlarged demand. This

upsurge in prices can then lead to inflation. Differently in deficit budgets can lead to price increases through the deflation of currency. When a government runs a deficit, it may pattern more money or borrow from foreign sources to finance its expenditure. This can lead to a reduction in the value of the currency, as there is an overflow of the currency in flow. A feebler currency can lead to an upsurge in import prices, which can lead to an upsurge in inflation. The shortage of budgets can lead to inflationary pressures in an economy. This can arise through an upsurge in the money supply, an increase in public assets, an increase in demand for goods and services, and a deflation of the currency. It is significant for governments to carefully achieve their budgets to circumvent inflationary pressures and uphold price stability in the economy.

H₁: A deficit budget is positively related to inflation.

Figure 1: Conceptual model



3.1.2. Linking deficit budget and inflation through external finance as a mediating variable

Outside financing can act as a moderator between deficit budgets and inflation by moving the extent to which shortage budgets lead to inflationary burdens in an economy. Outside financing refers to the deriving of funds by a government from foreign sources, such as international financial institutions, foreign governments, or isolated investors (Mehar, 2021). When a government runs a deficit budget and wants to finance its spending, it can turn to peripheral sources of financing if national sources are insufficient. Outside financing can help decrease the inflationary impact of a deficit budget only if an alternative source of subsidy does not upsurge the domestic money supply or lead to a deflation of the domestic currency (Rashidi et al., 2022). Outside financing can also help to reasonable the impact of deficit budgets on inflation by impressive conditions on the borrowing country. International financial organizations and foreign governments often involve governments in implementing certain economic policies or reforms in arguments for financing. These policies may contain fiscal austerity measures, such as dropping government spending or cumulative taxes, which can help to decrease inflationary pressures. Furthermore, external financing can benefit to finance investment projects that increase efficiency and expand the economy's measurements to produce goods and services, foremost to an increase in supply that can alleviate the impact of a scarcity budget on inflation (Wu et al., 2022). For instance, external financing can assistance finance infrastructure projects that improve transport and communication amenities, which can decrease production costs and low prices. Conversely, external financing can also pay to

inflation if the borrowing country cannot facility its attest responsibilities. If the government borrows more than it can afford to refund, it may resort to printing extra money to pay off its debt compulsions, leading to an upsurge in the money supply and inflation. External financing can act as an arbitrator between deficit budgets and inflation by upsetting the extent to which scarcity of budgets leads to inflationary compressions in an economy. While external financing can assist in moderating the impact of deficit budgets on inflation by providing a substitute source of funding and striking conditions on the deriving country, it can also subsidize inflation if the deriving country cannot service its debt requirements. Therefore, it is significant for governments to carefully achieve their external debt to circumvent inflationary pressures and uphold price stability in the budget.

H₂: External financing is the mediator between deficit budget and inflation

3.1.3. Linking deficit budget and inflation through note issue as a mediator variable

Note issue, also recognized as central bank credit, can perform as a mediator between deficit budgets and inflation by touching the amount of money inflow and the demand for goods and services in any country's economy. Note issue mentions the procedure by which a central bank gives money to the government by buying government securities, which are fundamentally IOUs supplied by the government. When a government turns a deficit budget and wants to finance its spending, it possibly will issue government securities that are bought by the central bank through note issues (Bateman et al., 2024). This raises the money supply in the economy and can lead to inflationary gravities. However, note issues can also assist in alleviating the inflationary influence of a deficit budget as long as an alternative foundation of funding does not include increasing the national money supply or diminishing the domestic currency. Note issues can also perform as a mediator between deficit budgets and inflation by encouraging interest rates (Aragaw, 2024).

When the central bank purchases government securities through note issues, it inserts liquidity into the banking system, which can lesser interest rates. This can inspire borrowing and investment, leading to amplified economic movement and hypothetically higher inflation. However, if interest rates remain unaffected, note issues can lead to a rise in the demand for goods and services, which can raise prices and underwrite inflation. Furthermore, note issues can be rummage-sale as a tool for monetary policy to regulate inflation. Central banks can use note issues to regulate the money supply and interest rates to accomplish their inflation boards (Conti-Brown et. al., 2021). For example, if inflation is above the mark rate, the central bank can decrease the note issue, which decreases the money supply and upsurges interest rates.

This can help to cool off the economy and decrease inflationary pressures. Note issue can act as a mediator between deficit budgets and inflation by moving the amount of money in movement, interest rates, and the demand for goods and services in an economy. While note issue can subsidize inflationary densities increasing the money supply and demand for goods and services, it can also help to moderate the influence of deficit budgets on inflation by as long as an alternative source of funding and by plateful as a tool for monetary policy. It is important for central banks and also governments to cautiously manage note issues to continue price constancy in the economy.

H₃: Note issue can be a mediator between deficit budget and inflation.

4. RESULTS

4.1. An Overview of Bangladesh Economy

During the 1970s, Bangladesh faced a high inflation rate due to the extensive modernization and rehabilitation exertions mandatory to restructure the war-torn economy. However, from the 1980's, the Consumer Price Index (CPI) inflation began to stabilize, settling at a level of around 10 percent or below. To calculate the CPI, food items are given a weight of over 58 percent, with more than 80 percent of that weight assigned to rice and cereal products. The weight of food items is higher in rural CPI than in urban CPI, and as the majority of the population in Bangladesh resides in rural areas, rural inflation, and food prices can have a significant impact on the national inflation rate. The fiscal sector of Bangladesh has historically struggled to generate sufficient tax revenues or income from noninflationary sources for its expenditure, due to weak fiscal management and tax structure (Zafarullah & Haque, 2021). Like many other developing and emerging industrialized countries, Bangladesh faces budgetary challenges, as areas of public expenditure are always larger than sources of income. Furthermore, the lower domestic savings rate limits the administration's ability to plagiarize from the public (Uddin, 2022). Even though a continuous GDP evolution rate of around 6 percent since 2003, the tax base has not grown significantly due to a lower level of monetization and skewed income distribution (Uddin, 2022). Although a well-functioning banking sector and equity market exist, the bond market and non-bank financial sector of Bangladesh still have a long way to go (Hasan, 2024). A well-developed bond market can provide the government with roll-over facilities of its debts over a long-time horizon, which can influence modes of deficit financing and hence the imitations of fiscal deficits on the price level (Luca Ascoli, 2019).

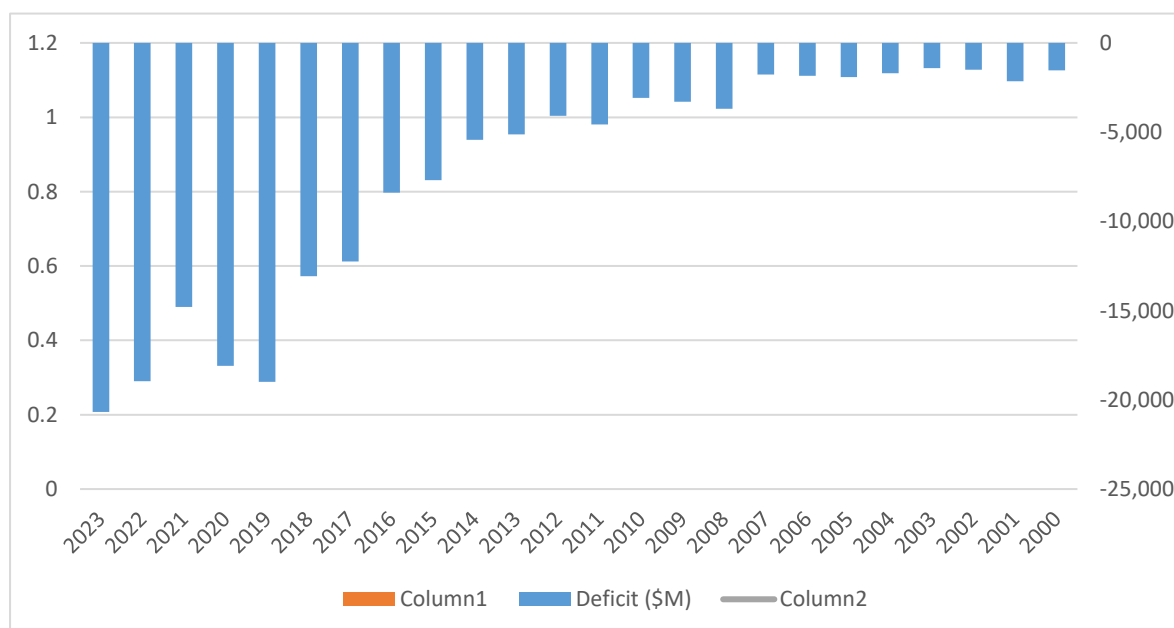
Even though recent enhancements in tax revenue collection, Bangladesh's revenue-GDP ratio (12 percent) and tax-GDP ratio remain the lowest in the South Asian region, according to the Governor of Bangladesh Bank in 2011. As a result, fiscal deficits remain obstinate, and the common article of deficit financing is to plagiarize from abroad and domestic sources, including the central bank, the scheduled banks, and the non-bank sector (Sadia Afrin, 2013). Plagiarizing from the banking sector can be predominantly injurious to the economy, as it is inflationary and crowds out private investment (Islam, 2012). Both of these effects can erode economic advance, as the theory suggests. To address these issues, the administration of Bangladesh needs to focus on enlightening fiscal management, enhancing the tax structure, and inspiring domestic savings (Bangladesh, 2016). The expansion of a robust bond market and non-bank financial sector would also help the administration manage its debt and financing needs more effectively (Hasan, 2024). Furthermore, the administration should reconnoiter substitute sources of funding and shrink its confidence in borrowing from the central bank, which could lead to inflation and lower economic growth (Jácome, 2012).

4.2. Budget Deficit Scenario

Bangladesh, an evolving South Asian country, has been suffering budget deficits for the past decade. A budget deficit occurs when administration expenditure outstrips its revenues, resulting in plagiarizing to meet its financial obligations. Here's a brief synopsis of the budget deficit consequence in Bangladesh from 2000 to 2023 (Ahmed, 2019). In 2010, the budget deficit in Bangladesh was 5.5percent of the GDP, which was lower than the previous year's deficit of 6.2percent. The administration had taken agencies to shrink the budget deficit by

cutting down on disbursements and increasing revenues. However, the deficit started to intensify again from 2011 onwards due to the execution of various expansion projects and intensifying expenditures on subventions, predominantly for food and energy (World Economic Outlook, 2022). The budget deficit stretched its peak in 2014, with a deficit of 6.4 percent of GDP. This was mainly due to the enlarged disbursements on groundwork enlargement projects and social well-being net sequencers. However, the administration tried to shrink the deficit by executing various measures, including increasing tax revenue, reducing non-enlargement disbursement, and accumulating disseminated earnings. From 2015 onwards, the budget deficit started to diminution due to the enactment of various fiscal measures, including reforming the tax system, reducing subsidies, and snowballing export earnings. As a result, the budget deficit diminished to 3.5 percent of GDP in 2018, which was the lowest in the past decade. However, the budget deficit started to increase again in 2019 and 2020, primarily due to the COVID-19 pandemic's economic impact. The government had to increase spending on health care, social safety net programs, and infrastructure projects to mitigate the contagion's impact on the economy. As a result, the budget deficit increased to 4.8 percent of GDP in 2020. Bangladesh has been experiencing budget deficits for the past decade, mainly due to increased spending on enlargement projects and social safety net programs (Khatun, 2021). However, the government has been taking measures to reduce the deficit by implementing various fiscal measures. Nevertheless, the pandemic's economic impact has led to an increase in the budget deficit in 2019 and 2020.

Figure 2: Budget deficit scenario



From 2000 to 2023, Bangladesh veteran a tenacious budget deficit, with ideals shifting expressively over the years. Preliminary at -\$1,540 million in 2000, the deficit continued comparatively steady in the early 2000s, flying around -\$1,499 million to -\$2,151 million. The mid-2000s saw a steady increase, reaching -\$1,847 million in 2006. The deficit then extended more sharply, hitting -\$3,693 million in 2008. By the 2010s, the tendency of growing deficits continued, with prominent jumps to -\$4,568 million in 2011 and -\$5,424 million in 2014. This rising trajectory persevered, reaching -\$12,241 million by 2017. The twilight 2010s and early 2020s showed even more noticeable deficits, climaxing at -\$18,996 million in 2019 and -

\$20,670 million in 2023. This increase reflects a rising reliance on plagiarizing to finance government spending, motivated by factors such as setup projects, social programs, and economic inducement measures. Regardless of some variations, the general trend designates increasing fiscal inequities, requiring careful economic planning and policy modifications to address the long-term consequences of continued budget deficits.

4.3. Money Supply Trends in Bangladesh

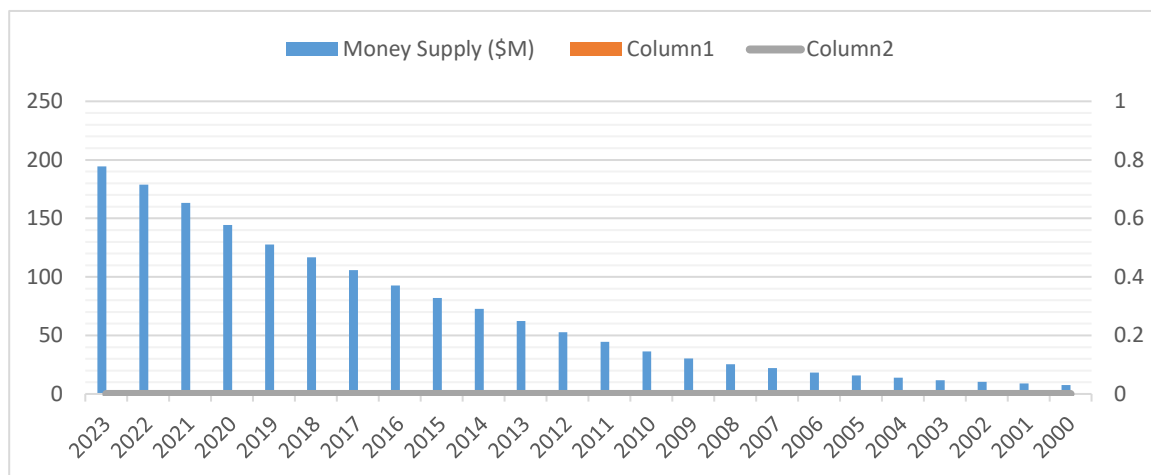
From 2000 to 2023, the money supply in Bangladesh showed a constant and considerable uphill trajectory, dazzling the country's economic growth and monetary policy modifications. Opening at \$7.68 million in 2000, the money supply raised steadily all over the early 2000s. By 2001, it had amplified slightly to \$9.01 million, and this incremental evolution sustained into 2002 with \$10.27 million. The pace of growth picked up to some extent in the mid-2000s, with the money supply accomplishing \$13.78 million in 2004 and then \$15.78 million in 2005. Throughout this period, the Bangladesh Bank likely applied monetary policies intended to support economic development and manage inflation. The late 2000s saw a high-pitched rise, with the money supply drumming \$22.22 million in 2007 and \$25.33 million in 2008. This period matches with global economic unpredictability and Bangladesh's energies to steady its economy through boosted liquidity. The tendency continued strongly into the 2010s, with the money supply increasing to \$36.44 million in 2010 and additional to \$44.67 million in 2011.

By 2013, the money supply had rushed to \$62.44 million, prominence the central bank's positive stance in handling the economy's runniness needs amidst growing fiscal difficulties and developmental projects. The mid-2010s sustained this rising momentum, with the money supply attainment of \$72.67 million in 2014 and \$82.11 million in 2015. This period likely replicates the increasing effect of extensive monetary policies and the funding of important infrastructural and social agendas. By 2016, the money supply had amplified to \$92.78 million, tracked by \$105.78 million in 2017, representative of continuing economic growth and higher demand for money in flow. The trend continued into the late 2010s, with the money supply rising to \$116.67 million in 2018 and \$127.78 million in 2019.

This stable rise lines up with Bangladesh's hard work to stimulate economic action and manage inflationary gravities through cautious monetary guidelines. Toward the inside the 2020s, the money supply touched \$144.44 million in 2020, a period noticeable by the economic encounters modeled by the COVID-19 pandemic, which required increased runniness to support businesses and persons. In 2021, the money supply continues to climb to \$163.33 million, shimmering ongoing fiscal incentives and monetary simplification measures. By 2022, it had increased to \$178.89 million, and in 2023, it looking at \$194.44 million. This considerable growth in the money supply over the two-decade period underlines Bangladesh's developing economic scenery, categorized by healthy development creativities, fiscal growth, and dynamic monetary policies expected to promote continued economic growth.

The continuous rise in the money supply shows a positive approach by the Bangladesh Bank to encounter the economy's rising needs, be able to inflation, and support the government's developing goals. However, this tendency also necessitates watchful monitoring to moderate potential inflationary densities and ensure long-term economic constancy.

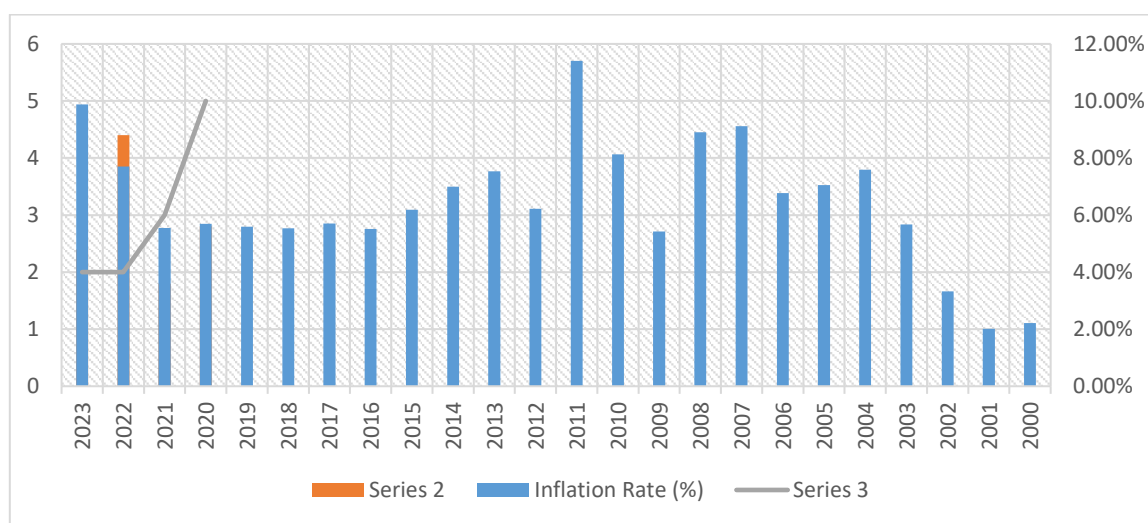
Figure 3: Money supply trends in Bangladesh



4.4. Inflationary Scenario in Bangladesh

Inflation in Bangladesh has been surprisingly moderately unchanging in recent years, with some dissimilarities. According to the report of the Bangladesh Bureau of Statistics, the regular inflation rate in the country was around 5.5percent from 2000 to 2023. In 2015, the inflation rate peaked at 6.4 percent due to an increase in food prices. However, in 2016, inflation surprisingly dropped to 5.4 percent, mostly due to a fall in food prices. In 2017, the inflation rate remained steady at around 5.7 percent, but it rose slightly in 2018 to 5.8 percent, primarily due to a surge in food and fuel prices. In 2019, inflation rose further the inflation rate to 5.9 percent, determined by a rise in food and non-food prices. However, the inflation rate fell to a record low of 5.4percent in 2020, mostly due to the COVID-19 pandemic's influence on the economy, consequential in a decrease in demand and lower oil prices in the market.

Figure 4: Inflationary scenario in Bangladesh



In 2021, the inflation rate has been on a rising trajectory, with the normal inflation rate showing at around 5.8percent in the first quarter of the year. The flow in inflation has been mostly due to a rise in food and also fuel prices, as well as the devaluing of the Bangladeshi taka in

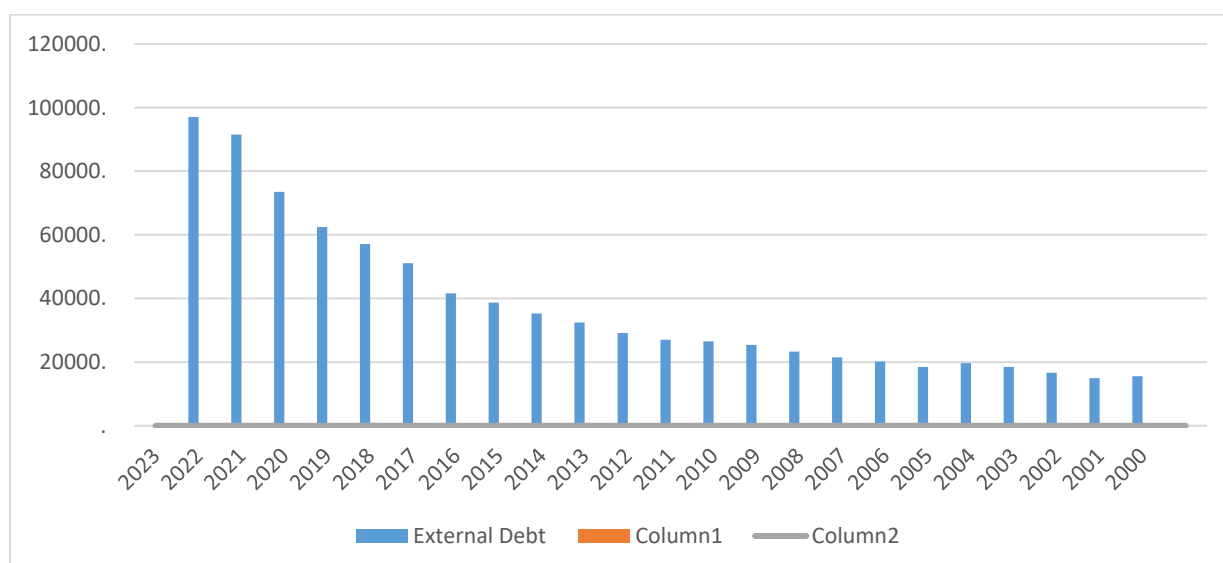
contradiction of the US dollar. Overall, the inflation rate in Bangladesh has continuously been relatively stable in recent years, but it is dynamically to monitor its tendency and take indispensable measures to control it to safely measure economic constancy and development.

4.5. Foreign borrowing scenario (external debt)

Foreign financing has played a notable role in financing the shortage budget in Bangladesh from 2000 to 2023. The country has a persistent budget shortage, which has been primarily assisted by borrowing from foreign sources, as well as multidimensional and mutual expansion partners, commercial banks, and the global capital markets. During the 1990s, Bangladesh relied seriously on concessional loans from multidimensional organizations such as the World Bank and also the Asian Development Bank to finance its budget shortage. These loans had reasonably low interest rates and also longer payment periods, construction them an outstanding selection for the government. In the early 2000s, the government was indifferent to mutual financing, mainly from countries like some countries Japan and China, which provided large assistance and concessional loans for set-up development. At the same time, marketable borrowing from global capital markets also became increasingly popular, predominantly for short-term financing requirements.

However, this change in the means of commercial borrowing initiated higher interest rates and little repayment periods, which better the risk of debt distress. This led to an important surge in the country's outside debt stock, which raised around \$32 billion in 2017, with around 60 percent of it owed to outside creditors. In recent years, there has been increasing anxiety about the sustainability of Bangladesh's outside debt and the country's capability to repay its debts, predominantly with the decreasing trend in assistance and concessional financing. In reply, the government has been irritating to increase its sources of financing and reduce its reliance on foreign borrowing, focusing on domestic resource deployment and also public-private partnerships to finance its expansion needs. As a result, foreign financing has been a notable source of financing for Bangladesh's shortage budget from 2000 to 2023. While it has provided much-needed resources for development, it has also improved the country's external debt stock and the risk of debt agony, emphasizing the need for larger prudence in borrowing and an emphasis on domestic resource enlistment to finance development requirements.

Figure 5: Foreign borrowing scenario

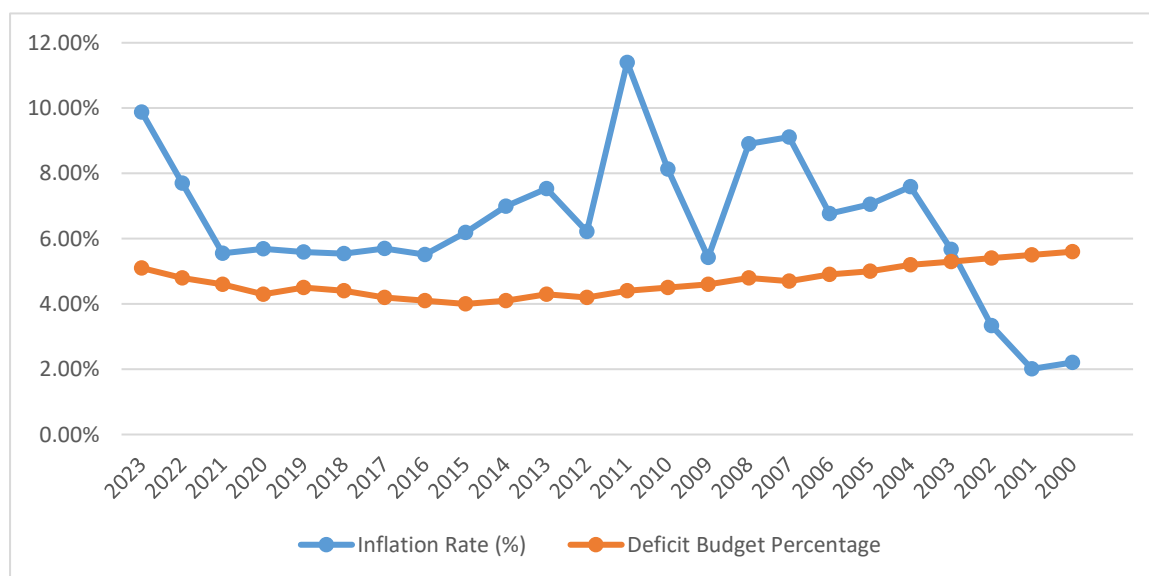


4.6. Impact of Budget Deficits, Borrowing, and Money Supply on Inflation and Economic Stability

A deficit budget happens when a government of a country spends more money than its revenue or takes it in through taxes and other causes of revenue. This generates a deficit, which must be backed by borrowing, as the government of any country cannot print money to finance its actions. The rise in borrowing can influence higher inflation, as more money is racing the similar amount of goods and services. This is often referred to as demand-pull inflationary activities, as more money is racing the same quantity of goods and services, pushing up the price level. The government may also be required to increase taxes to pay for the existing deficit, which could similarly lead to more inflation. Inflation can also be instigated by a government printing too much money to recover this situation, which is known as perm the economic indicator cost-push inflation.

The chart shows that the budget deficit has typically grown between 2000 and 2023, with great upticks in 2019 and 2020. The general debt increased meaningfully as a consequence of this incessant deficit expenditure, rising from \$26,581 million in 2003 to \$177,618 million in 2023. From \$16,687.6 million in 2002 to \$97,011.7 million in 2022, the external debt similarly increased. Increased borrowing from external sources is indirect by this debt accretion, which increases interest outgoings and puts an additional burden on the economy. There is significant variation in the foreign debt yearly percentage change, with highs of 24.37 percent in 2021 and lows of -6.14 percent in 2005. This variation denotes times of high borrowing, which is probably done to fund deficits and boost the economy. The government may impression pressured to generate more money to grow the money supply, however, as this also suggests a rising burden of debt payments and interest. Between 2000 and 2023, the money supply amplified melodramatically from \$7.68 million to \$194.44 million. Inflation, which is successfully the hidden tax, is powerfully associated with this increase in the money supply. The value of the currency deteriorates as the government increases the money supply, which increases the cost of goods and services.

Figure 6: Inflation rate and deficit budget percentage



Customers' purchasing power is fundamentally reduced by this devaluation, which proposes an unspecified tax on their income and savings. With prominent inflation flows like 11.40 percent in 2011 and more restrained rates like 2.19 percent in 2023, the data also determines a range of inflation rates. These swings are frequently reactions to shifts in the amount of foreign debt and the money supply. For example, a significant rise in the money supply from \$52.67 million in 2012 to \$62.44 million in 2013 is correlated with strong inflation in 2011. On the other hand, despite obstinately high debt levels, recent years with controlled inflation rates—such as 9.88 percent in 2023—indicate steps to steady the value of the currency. Another vital element is the association between GDP and debt. The chart demonstrates that in 2016 and 2023, the debt-to-GDP ratio was higher from 27.72 percent to 39.34 percent. A top-to-bottom debt-to-GDP ratio progresses an inquiry about sustainability and fiscal suitability since it creates that the nation's debt load is increasing more quickly than its economy. Governments may use inflationary procedures to decrease the actual value of debt when debt stages are high, so taxing persons indirectly by dropping the buying power of their money. By inspiring inflation, the increase in the money supply, note issuance, and foreign debt all donate to hidden taxes. Currency depression happens from the government's dependence on borrowing and money formation to fund deficits, which consumers' buying power and fundamentally taxes their savings and income. This involved interaction highlights how important it is to have stable fiscal policies to guarantee stable economic growth without placing an extreme burden on the public through hidden taxes.

5. CONCLUSION

The literature review provides evidence of a diverse relationship between budget deficits and inflation. Some reconsiderations propose a significant positive connection between the deficit budget and inflation, while others determine no significant relationship or unchanging negative association. The answers differ based on the country and the period. In the case of Bangladesh, the government has undertaken persistent budget deficits, and inflation has been a concern in the past. The country's macroeconomic goal is price constancy, but lawmakers often prioritize high employment and fiscal deficit management, which can be core to inflationary concentrations. The necessity of bank borrowing to finance deficits, an imperfect tax base, and an underdeveloped bond market further strain the government's ability to control inflation. The association between budget deficits and inflation in Bangladesh needs to be observed to raise the influences of fiscal and monetary policy on the economy. Rising prices can mutilate long-term economic development and wear away living standards. Identifying the factors connected to inflation is energetic for actual policy-making and economic planning. The instructions studied highlight the importance of conducting budget deficits and leading the money supply to control inflation. They also highlight the necessity to recuperate fiscal management, recover the tax structure, and motivate domestic savings. Evolving a healthy bond market and reducing reliance on central bank borrowing can support and lessen inflationary burdens. The association between budget deficits and inflation in Bangladesh is multi-layered, and further research is required to gain a complete understanding of the moving aspects and develop actual policy events to ensure price constancy and maintainable economic growth.

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