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INFLATION DYNAMICS IN TANZANIA: AN EXPLORATORY REVIEW OF REFORMS, TRENDS AND CHALLENGES

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This study explores the inflation dynamics in Tanzania, analyzing the interaction of government policies, domestic factors, and external shock over the past five decades. While the existing literature has examined particular inflation dimensions, a holistic inflation picture is lacking, which this study aims to provide. Through rigorous documentation and review performed quantitatively and qualitatively, inflation trends, the effect of major policy reforms, and inflation management challenges are examined. The findings indicate that inflation has varied considerably with times of high volatility juxtaposed with times of relative stability. Market reforms such as fiscal and trade reforms have strengthened macroeconomic stability and recently contained inflationary pressures. However, structural bottlenecks such as a narrow tax base, low financial inclusion, dominant informal sector and limited institutional capacity persist and confront the effective management of inflation. Global commodity price volatility, the effect of climate change, and political events further exert pressure on prices. Policymakers need to tackle the challenges of inflation management and price stability effectively and holistically. Widening the tax base, improving financial inclusion, strengthening institutions, economic diversification, and reducing the effect of climate change, coupled with the sustainable improvement of macroeconomic management, are the major steps to improve living standards and foster Tanzania's growth.

Keywords: **Price Level, Inflation, Deflation, Tanzania**

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1. Introduction

Price stability constitutes a pillar of long-run economic growth and rising living standards, as it supports an environment conducive to investment, employment, and balanced development. High and variable inflation, in contrast, can have immensely detrimental impacts, eroding the purchasing power, distorting economic decision, generating uncertainty for producers and investors, widening inequality, and, in general, constraining social and economic development (Alchian and Klein, 1973; Bruno and Easterly, 1996). The present study considers extensive research documenting inflation dynamics in developed economies, a comprehensive examination of inflation dynamics in developing economies, and, in particular, in countries in East Africa, continues to be crucial.

While a variety of studies have examined individual dimensions of inflation in Tanzania, for instance, the consequences of specific reforms (e.g., Kilindo, 1993; Shitundu and Luvanda, 2000) or food price dynamics (Adam et al., 2012), a critical omission of a holistic inflation picture of Tanzania remains. Most studies have examined specific dimensions of inflation in an isolative manner, with no consideration for complex interdependencies between factors driving its path. In addition, a lack of comprehensive analysis continues to prevail, with a consideration for long-run inflation behavior in Tanzania, with a view towards the consideration of successive waves of reforms and changing the international environment.

To bridge such gaps, in analysis, the current study will attempt a thorough analysis of inflation behavior in Tanzania over a five-decade period. By considering interdependencies between government interventions, domestic factors, and external events, the current study will attempt to: E explain the historical evolution of inflation in Tanzania, with a comprehensive search for key turning points and consideration of interdependencies between a variety of factors, including external commodity price fluctuations, domestic demand-supply imbalances, and the role played by fluctuations in real exchange; investigate the impact of successive waves of the reforms, such as structural reform, fiscal reform, and monetary policy dynamics, in shaping inflation performance and closely evaluate success in achieving price stability and any unintended consequence; and identify and analyze key obstacles to effective inflation management in Tanzania, such as a narrow tax base, financial under-inclusion, and an expansive informal economy, policy obstacles such as political intervention and weak institution capability, and external obstacles such as external economic downturns, impact of climate change, and geo-political events.

By providing a balanced and in-depth review of inflation drivers in Tanzania, the present study will make a meaningful contribution to useful information for policymakers, academicians, and the general public. Not only will its findings inform and shape inflation-control policies' design and delivery but contribute towards a deeper and broader range of understandings through a thorough investigation of macroeconomic stability in developing economies in general, and in an era of heightened globalization and its accompanying obstacles.

The study employs a descriptive study design, with secondary information acquired through a range of sources, including monthly inflation statistics, macroeconomics statistics, and reform documents put forward by the World Bank, Bank of Tanzania, and IMF, and similar relevant institutes. The analysis integrates quantitative techniques, including a time series analysis, with a qualitative analysis of reform documents and institutional change, for an in-depth analysis of inflation dynamics in Tanzania

The remainder of the article is structured as follows: Section 2 is a discussion on theoretical and empirical studies regarding inflation in developing nations. Section 3 addresses methodology and sources of information for the study. Section 4 is the analysis and reporting of the results, in terms of policy reform, inflation trends, and concerns for today's times. Section 5 concludes with a discussion on policy, study limitations, and alternatives for future work.

2. Literature Review

This section involves a critical examination of the key literature in an attempt to comprehend inflation dynamics in Tanzania. It begins with a review of key theoretical frameworks on inflation, then overviews inflation studies in developing economies and, in specific terms, in Tanzania.

2.1 Theoretical Perspectives

An analysis of inflation driving factors is critical for effective policymaking. This study draws from prevalent theoretical frameworks, in an attempt to provide a platform for analysis.

The monetarist theory, supported, for instance, by Milton Friedman (1968), holds a view that inflation is a monetary issue caused by excessive expansion in money supply. In its perspective, the monetarist theory holds a view that an accelerated expansion in money supply triggers an expansion in overall demand, culminating in a price rise. That economic school of thought sees a key role for monetary policy in checking inflation and played a significant role in developing Tanzanian monetary policy frameworks, including inflation-targeting regimes (Kessy et al., 2017). However, it is important to appreciate that the monetarist theory cannot possibly capture, for instance, demand and supply-sided factors and structure-related constraints in driving inflation, specifically in developing economies with complex economic structure.

Structuralism, alternatively, holds a view that inflation is engineered by supply-sided constraints, including production constraints, infrastructure, and efficiency in distribution, in driving inflation (Kilindo, 1997). In the Tanzanian environment, such a perspective is particularly relevant, in that Tanzanian weaknesses in terms of structure, including narrow base, unavailability of access to finance, and high level of informality, can contribute towards inflationary pressures (Rutasitara, 2004).

By considering both monetarism and structuralism, one realizes at a deeper level multi-dimensional sources of inflation in Tanzania. Demand can in fact best be addressed through the monetary policy, but overcoming deep-rooted impediments is most important in terms of long-run price stability and the long-run development of the economy.

2.2 Empirical Studies

Existing research in Tanzanian literature on inflation embraces a variety of aspects for such a phenomenon. For example, Wangwe (1994) mentions macroeconomic shocks such as the 1970s' oil price shocks, and the structural rigidities such as inefficient production and distribution, as sources of high inflation during such a period. Expansionary fiscal policies and domestic demand constraints, according to Kilindo (1993), were also cited as major factors that caused inflation in the 1980s.

The contribution played in stabilizing inflation through monetary reforms, specifically in post-1990s, is a dominant theme discussed in Kessy et al. (2017). According to the study, the use of market-based instruments such as the use of open market operations and altering interest rates played a significant role in reducing inflation to single-digit values. However, such effectiveness in reforms is attested to have been compromised, for example, through weak institution capability and poor coordination between monetary and fiscal policies.

The contribution played by external shocks towards inflation in Tanzania is a theme documented in several studies in the literature. For example, Dillon and Barrett (2016) estimate how global food and oil price fluctuations contribute towards domestic inflation rates. According to the study, Tanzanian inflation is sensitive towards price fluctuations in international economy, a consequence of its over-dependency on imported goods.

Structural reforms, in addition, have been examined in terms of contributing towards inflation trends. According to Mwase and Ndulu (2008), an examination of Tanzanian economy's growth and macroeconomic stability, specifically following its experiences with its experiments with trade liberalization, privatization, and public sector reform, reflects mixed performance in shaping inflation. Despite contributing towards efficiency in specific sectors, such reforms have not aided uniformly in reducing inflation, a consequence of persistent structural weaknesses in a big informal sector and poor productivity in key sectors of economy.

While these studies provide valuable insights, they often lack a comprehensive and integrated perspective. Most studies have tended to focus on specific aspects of inflation in isolation, without fully integrating the complex interaction of monetary, fiscal, structural, and external factors that shape inflation dynamics. There is also a dearth of comprehensive analyses that examine the long-term evolution of inflation dynamics in Tanzania, incorporating the impact of successive waves of policy reforms and the evolving global economic context. Furthermore, while the importance of structural constraints is acknowledged, a more in-depth analysis of their impact on inflation outcomes is needed.

This study aims to address these gaps by: Providing a comprehensive analysis of inflation dynamics in Tanzania over the past five decades, integrating the impact of various factors, including policy reforms, domestic shocks, and external influences; examining the long-term impacts of policy reforms on inflation trends, particularly in the context of evolving global economic conditions and the emergence of new challenges such as climate change; and developing a more nuanced understanding of the interplay between structural constraints, such as financial exclusion and a narrow tax base, and inflation outcomes in the Tanzanian context.

3. Methodology

This section outlines the research design, data sources, and analytical techniques employed in this study to explore inflation dynamics in Tanzania. The methodology is designed to ensure a robust and comprehensive analysis, addressing the gaps identified in the literature and aligning with the objectives of this research.

3.1 Research Design

This study employs a descriptive research design, which is particularly suitable for examining complex phenomena such as inflation dynamics. The descriptive approach allows for a detailed exploration of historical trends, policy reforms, and their impacts on inflation in Tanzania. By analyzing qualitative and quantitative data, this research aims to provide a holistic understanding of the factors influencing inflation rates over the past fifty years.

3.2 Data Sources

The study utilizes a variety of data sources to capture the multifaceted nature of inflation in Tanzania. The quantitative analysis was based on monthly and annual inflation data (Consumer Price Index) obtained from the World Bank's World Development Indicators (WDI) database. The other key macroeconomic data, including GDP growth rates, exchange rates, money supply, and fiscal data, sourced from the World Bank WDI, the International Monetary Fund (IMF) database, and the Bank of Tanzania. The qualitative analysis was conducted using data obtained from policy documents, including government reports, central bank reports, and academic publications on economic reforms and policy changes in Tanzania, and from the relevant academic literature on inflation dynamics, economic development, and policy reforms in Tanzania and other developing countries.

3.3 Data Analysis

The study employs content analysis approach to analyze the gathered data and process it into the results that cover the identified gaps. Where applicable and appropriate, visual instruments such as tables and figures are utilized to show trends on inflation in distinctive time periods, to enhance the understanding on the inflation dynamics in Tanzania. While key statistics over time where quantitatively analyzed to identify long-term trends, seasonal patterns, and cyclical fluctuations in inflation rates, as well as the explanations behind the associated trends, policies and reforms were qualitatively analyzed, identifying key policy shifts, and assessing these shifts' potential impact on inflation.

4. Results and Discussions

Understanding inflation dynamics is critical because inflation can have significant impacts on the economy and people's lives (Alchian and Klein, 1973). If inflation is too high, it can erode the purchasing power of consumers, reduce confidence in the economy, and lead to a decrease in economic activity. On the other hand, if inflation is too low, it can lead to deflation, which can also harm economic growth (Bruno and Easterly, 1996). Therefore, comprehending the inflation dynamics is critical for creating efficient policies that can foster price stability, encourage sustainable economic growth and enhance social welfare (see for example Barro, 1995; Umaru and Zubairu, 2012).

4.1 An Overview of Inflation-Control Policy Reforms

The Tanzanian government has implemented several policy reforms to address inflation. In this section, the study begins with the pre-reforms inflation control policy regime before dwelling on structural policy, fiscal policy and monetary policy reforms that were pursued over the last 50 years (Kilindo, 1993; Shitundu and Luvanda, 2000; Muganda, 2004; Mwase and Ndulu, 2008).

4.1.1 Pre-reforms Inflation Control Regime (The 1970s-1980s)

The Arusha Declaration of 1967 set out a vision for a socialist society in Tanzania based on the principles of self-reliance, equality, and common ownership of resources as described by

Nyerere (1968). The government nationalized key industries and implemented policies to promote self-sufficiency and reduce reliance on imports (Stein, 2010).

The Government embarked on a public sector-led development approach constructed on "controls" to attain macroeconomic stability. As described by Wangwe (1994), Wangwe (1983), and Stein (2010), the controls that were in place during the 1970s and 1980s encompassed both volume allocation of credit and foreign exchange, in addition to price controls that included goods prices, wage rates, exchange rates, and interest rates.

The National Price Control Advisory Board was established in 1971, and later National Price Commission in 1974 was tasked with setting prices of goods (Mongi, 1980). In the manufacturing sector, full price control was imposed, to safeguard low-income households from the effects of inflation while simultaneously restricting local producers' monopolistic pricing power (Mongi, 1980).

Between 1974 and 1985, when price controls were in place, Tanzania experienced multiple macroeconomic shocks, including the first oil price shocks in 1973-1974, severe drought in 1973-1974, a commodity boom in 1976-1977, the collapse of the East African Community in 1977, a second oil price shock in 1979, and a war with Uganda under Idd Amin in 1979 (Wangwe, 1983; Wangwe, 1994). According to Wangwe (1983) and Wangwe (1994), these shocks led to economic imbalances, uncertainties, and reduced incentives to produce among firms and individuals.

As a result, inflation rates during the 1970s and 1980s were high, averaging around 20 percent between 1970 to 1989 (World Bank, 2022). High inflation during the period was also a result of high government spending and fiscal imbalances (Shitundu and Mjema, 1995). According to Shitundu and Mjema (1995), the government invested heavily in infrastructure development, such as roads, schools, and hospitals, which increased government expenditure. However, this investment was not matched by an increase in revenue, which led to fiscal imbalances and inflationary pressures (Shitundu and Mjema, 1995).

In response to these macroeconomic challenges, the government implemented a range of policy measures to control inflation. These measures included the intensification of price controls, rationing, and import substitution (Wangwe, 1983; Wangwe, 1994). Despite the implementation of policy measures, inflation rates remained high throughout this period (Shitundu and Mjema, 1995).

4.1.2 Structural Policy Reforms (The 1980s-1990s)

In the 1980s and 1990s, Tanzania continued its efforts to address the macroeconomic imbalances created during the 1960s and 1970s. During the period, the government implemented a range of structural policy reforms to ensure macroeconomic stability. Structural policies refer to policies that aim to improve the efficiency and competitiveness of the economy (Mwase and Ndulu, 2008). The structural reforms were enshrined in the Tanzania Economic Recovery Programme (ERP) under the IMF Structural Adjustment Facility (SAF) (Mwase and Ndulu, 2008). These policies include the liberalization of trade, privatization of state-owned enterprises, and trade reforms.

The first structural policy reform implemented was liberalisation. Liberalisation refers to the process of removing government regulations and barriers to trade and investment (Hamad et al, 2014). Tanzania removed many trade barriers, including import and export licenses, to promote competition. This policy led to an increase in imports, which helped to reduce the cost of goods and services. In Tanzania, liberalisation has been implemented to promote competition and efficiency in the economy (Hamad et al, 2014). By promoting competition, liberalisation helps to reduce the monopoly power of firms in certain sectors and thereby lowers the cost of production for firms (Hamad et al, 2014).

On the other hand, the country also implemented trade reforms. Trade reforms refer to policies that aim to promote international trade and reduce trade barriers (Young, 1991; Grossman and Helpman, 1991). In Tanzania, trade reforms have been implemented also to promote exports and reduce the country's reliance on imports (Hamad et al, 2014). By promoting exports, trade reforms intended to increase foreign exchange inflows, which are important in stabilizing the exchange rate (Shitundu and Mjema, 1995). Additionally, by reducing the country's reliance on imports, trade reforms intended to reduce the impact of external shocks on the economy, which is important in inflation stabilization (Hamad et al, 2014).

Another structural policy measure implemented during this period was the privatisation of state-owned enterprises. Privatisation refers to the process of transferring ownership and management of state-owned enterprises to the private sector (Hamad et al, 2014). In Tanzania, privatisation has been implemented to improve the efficiency of state-owned enterprises and reduce the burden on the government budget (Nyagatera and Tarimo, 1997). By reducing the role of the government in the economy, privatisation was intended to reduce the fiscal deficit, which has been one of the drivers of inflation in the past (Nyagatera and Tarimo, 1997).

4.1.3 Fiscal Policy Reforms (The 1990s -2000s)

As noted by Bigsten et al. (2000), Tanzania implemented a series of fiscal reforms, especially during the 1990s aimed at achieving macroeconomic stability by improving fiscal management and ending severe fiscal imbalances that prevailed in the 1970s and 1980s. According to Muganda (2004), these reforms encompassed several initiatives such as the implementation of more effective budgetary management procedures, the adoption of a cash budget system, and the creation of integrated financial management aimed at fostering coordination and cooperation among various ministries and the Treasury (Muganda, 2004). Additionally, there was the introduction of expenditure monitoring and increased transparency in budget management (Muganda, 2004; Bigsten et al. 2000).

During the 2000s, Tanzania implemented fiscal policy measures such as improving public financial management to control inflation (Morrissey, 1995). For example, the government has implemented reforms aimed at improving budget preparation and expenditure management to reduce waste and improve efficiency (Morrissey, 1995). As pointed out by Morrissey (1995), these fiscal reforms were ultimately intended to address the macroeconomic challenges faced by Tanzania in the previous decades.

4.1.4 Monetary and Exchange Rate Policy Reforms (The 1970s -2000s)

Tanzania has implemented different monetary policy reforms during the last five decades (see for example Mwase and Ndulu, 2008; Nyagatera and Tarimo, 1997; Kessy, et al. 2017).

Initially, after the shift to socialism in 1967, the monetary policy was aimed at achieving two primary goals of the government - stimulating rapid economic growth and achieving self-reliance (Mwase and Ndulu, 2008; Nyagatera and Tarimo, 1997). During the 1970s and 1980s, Tanzania implemented direct controls on bank lending rates, which were meant to control the supply of money in the economy (Nyagatera and Tarimo, 1997). In 1992, the Tanzanian government passed the Foreign Exchange Act, which aimed to liberalize external trade and promote market-oriented exchange rate determination. The Act replaced the previous system of fixed exchange rates with a market-driven exchange rate system (Mwase and Ndulu, 2008).

Since the second half of the 1990s, Tanzania implemented a monetary targeting framework to control inflation under the Bank of Tanzania (Kessy, et al. 2017). In this framework, the Bank of Tanzania is mandated with a clear objective of promoting price stability and sustainable economic growth unlike the framework used in the previous control regime which had multiple objectives (Nyagatera and Tarimo, 1997).

Under the monetary targeting regime, the Bank of Tanzania's (BoT) goal of price stability is defined in terms of a medium-term inflation target of 5 percent, measured by the Consumer Price Index (CPI) (Kessy, et al. 2017). This target is consistent with the East Africa Community (EAC) and South African Development Community (SADC) convergence criteria of 8 percent (set as maximum) and 3-7 percent, respectively. The inflation target is also considered appropriate to support the sustainable growth of the economy (Kessy, et al. 2017). The BoT uses a range of monetary policy instruments to control inflation rates, such as adjusting interest rates, reserve requirements, and open market operations (Kessy, et al. 2017). These tools are used to influence the supply of money in the economy, which according to monetarists has a direct impact on inflation (Barro, 1997). The BoT also monitors and controls inflation expectations by providing regular communication to the public about its monetary policy stance and inflation outlook (Bank of Tanzania, 2020). According to the available literature by Kessy, et al. (2017), the monetary targeting regime has played a role in promoting price stability in Tanzania, especially over the recent period.

Table 1. shows a chronology of some key inflation-related policy reforms that have been implemented by Tanzania since the 1970s

Table 1. Some key inflation-related policy reforms in Tanzania

TYPE OF REFORM	YEAR	REFORM
Pre-reform Inflation Control Regime (the 1970s to 1980s)	1973	The National Price Commission was established to determine price structures.
	1974	The Tanzanian Government initiated the implementation of its Basic Industries Strategy (BIS), which aimed to promote import-substituting industrialisation.
	1981	The National Economic Survival Plan (NESP) was put into place to cut government spending, boost export earnings, and resolve food shortages through a variety of supply-side policies.
Structural Policy Reforms (the 1980s to 1990s)	1984	The inception of Tanzania's Economic Recovery Programme (ERP) under the International Monetary Fund's (IMF) Structural Adjustment Facility (SAF).
	1986	A comprehensive Economic Recovery Programme (ERP) was launched by the Government to improve macroeconomic management; address structural problems and; boost private sector engagement. The programme included measures to increase production; curb inflation and strengthen the balance of payments.
Fiscal Policy Reforms (the 1990s to 2000s)	1995	Establishment of the Tanzania Revenue Authority (TRA) to streamline and modernize the country's tax administration system.
	1998	Introduction of the Public Financial Management Reform Programme (PFMRP) to improve the management of public funds and promote fiscal discipline.
	1998	Introduction of the Medium-Term Expenditure Framework (MTEF) that helps to link policy priorities with budget allocations, ensuring that resources are allocated efficiently and effectively.
	1998	Introduction of Value-Added Tax (VAT) as part of efforts to broaden the tax base and increase revenue collection
	1998/99	Implementation of the Integrated Financial Management System (IFMS) to improve financial management and reporting across the government.
	2004	Introduction of the Income Tax Act as part of efforts to broaden the tax base and increase revenue collection
Monetary and Exchange Rate Policy Reforms (1990 to 2000s)	1992	Enactment of the Foreign Exchange Act 1992. The Act paved way for trade liberalisation and market-determined exchange rates.
	1993	To liberalize the foreign exchange regime, the Tanzanian government introduced Bureaux de Change markets.
	1993	The Bank of Tanzania started auctioning foreign exchange as a means of managing liquidity and determining exchange rates based on market forces.
	1993	Treasury Bills Auctions were implemented as a way of financing the government's short-term deficits, managing liquidity, and establishing market interest rates. The auctioning began with the 91-day Treasury bill.
	1995	The Bank of Tanzania Act 1995 was amended to allow for the creation and oversight of private credit reference bureaus. The amendment also empowered the Bank to maintain price stability and ensure the financial system's soundness and safety.
	1997	Introduction of Repurchase agreements to supplement Treasury bills and bonds in open market operations.
	2006	Bank of Tanzania Act, 2006 and the Banking and Financial Institutions Act, (BFIA) 2006 were enacted.
	2014	The East African Community (EAC) Monetary Union Protocol was ratified.

Source: Author's Design

4.2 Inflation Trends in Tanzania

The policy reforms implemented in Tanzania as discussed in the preceding section, including structural, fiscal, and monetary policy reforms, were aimed at managing inflation and maintaining macroeconomic stability. Despite these reforms, the inflation profile of the country varied significantly over the past 50 years.

Therefore, in this section, a comprehensive summary of the inflation performance of the Tanzanian economy from the 1970s to 2021 in terms of trends is provided. The calculation of the country's inflation rate is executed by the Tanzania Bureau of Statistics (NBS), with historical inflation trends discussed in this paper relying solely on the National Consumer Price Index as reported by the World Bank (2022).

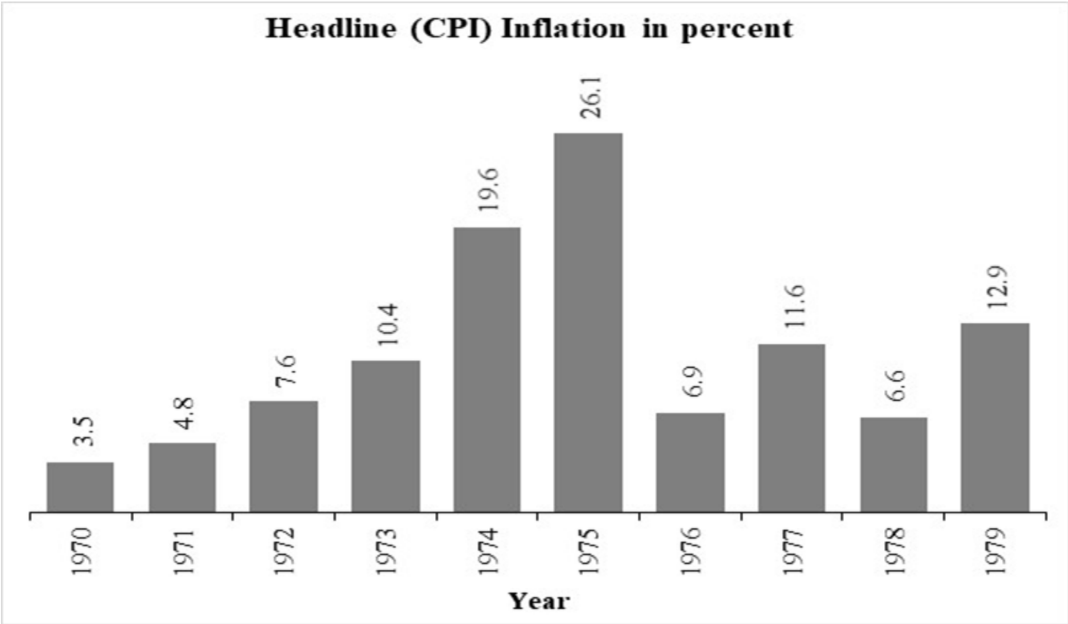
Over the period spanning 1970 to 2021, Tanzania's annual headline inflation rates exhibited a range of different profiles. This study identifies three distinct inflationary episodes, including the 1970s episode, the 1980s to 1990s episode, and the 2000s to present episode as described by Kilindo (1993), Shitundu and Luvanda (2000), Muganda (2004), Mwase and Ndulu (2008) and World Bank (2022). Each of these episodes is discussed in detail as follows.

4.2.1 The 1970s Episode

Figure 1 depicts the trends of the overall inflation rates in Tanzania over the period 1970–1979.

As displayed in Figure 1, inflation rates during 1970 and 1971 were low (3.5 percent and 4.8 percent respectively) but afterwards, inflation increased significantly to double-digit levels of 10.4 percent in 1973 and 19.6 in 1974, as a result of the first global oil crisis that hit the world economies in 1973/74 (Kilindo, 1993; World Bank, 2022).

According to Ndyeshobola (1983), high inflation rates during 1974 and 1975 were also associated with the severe food problems that prevailed during the second half of 1973 following the severe drought that occurred in 1973-1974. High inflation during the period also resulted from high government spending and fiscal imbalances and shortages of certain imported goods and services as described by Wangwe (1994), Wangwe (1983), and Stein (2010).



Source: Source: Author's Design using data from World Bank (2022)

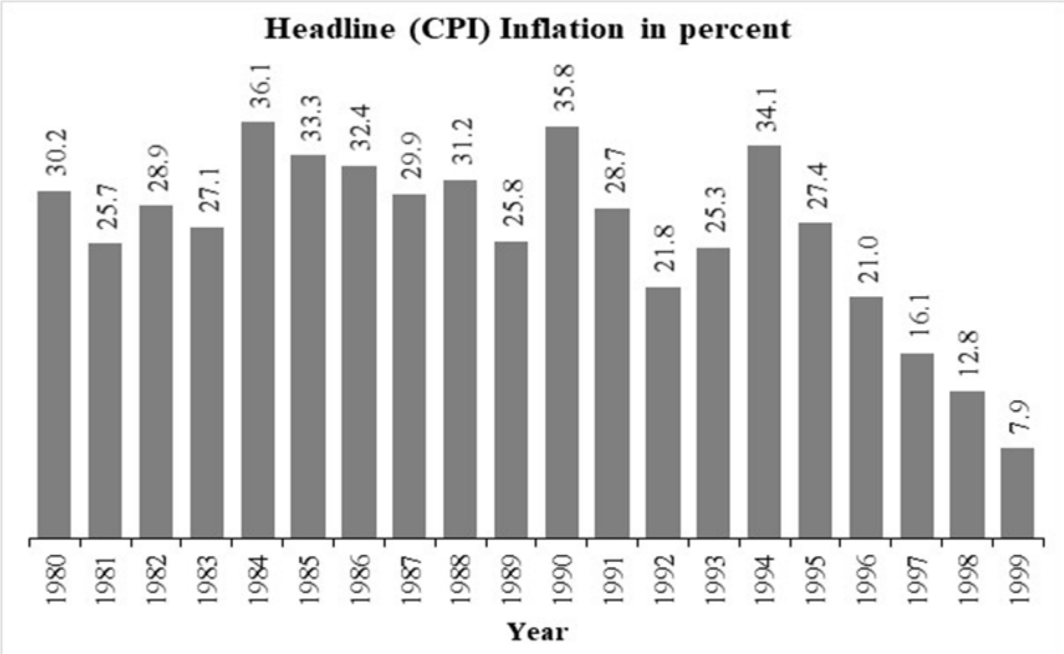
Figure 1. **Trends in Headline Inflation in Tanzania from 1970–1979**

Inflation moderated between 1976 and 1978 but increased significantly to 12.9 percent in 1979 following the war with Uganda which resulted in a decline in production and a shortage of goods (Wangwe, 1994; World Bank, 2022). Bigsten et al. (2000) argue that the break-up of the East African Community in 1977 and the depletion of international reserves after the end of the coffee boom in 1978, along with an unsuccessful attempt at import liberalisation in the same year, could have also contributed to the higher inflation rates in 1979.

4.2.2 The 1980s and 1990s Episode

Figure 2 depicts the trends of the overall inflation rates in Tanzania over the period 1980–1999.

As portrayed in Figure 2, during the 1980s Tanzania experienced high and volatile levels of inflation. According to World Bank (2022), the rates peaked at 36.1 percent in 1984 and remained at double-digit levels for most of the decade.



Source: Author's Design using data from World Bank (2022)

Figure 2. Trends in Headline Inflation in Tanzania from 1980–1999

Based on the available literature, several factors contributed to the high inflation rates during the 1980s, including fiscal imbalances, external shocks, and structural rigidities in the economy (Kilindo, 1993; Shitundu and Luvanda, 2000). Firstly, the government's expansionary fiscal policy, which involved increasing public spending and borrowing, contributed to the fiscal imbalances that fueled inflation (Kilindo, 1993; Shitundu and Luvanda, 2000).

External shocks, such as fluctuations in global oil prices and changes in export markets, also contributed to inflationary pressures in Tanzania during the period (Kilindo, 1993).

During the 1990s Tanzania was transitioning from a socialist planned economy to a market-oriented economy. The period from 1990 to 1995 was marked by high and volatile inflation rates averaging 28.9 percent (World Bank, 2022; Muganda, 2004; Mwase and Ndulu, 2008).

The country's inflation rate began to decline in the second half of the 1990s, reaching a single-digit level of 7.9 percent in 1999 from 27.4 percent recorded in 1995 (World Bank, 2022). The decline in inflation during the period is attributed to the waning of global macroeconomic shocks such as moderation in world oil prices that occurred during the

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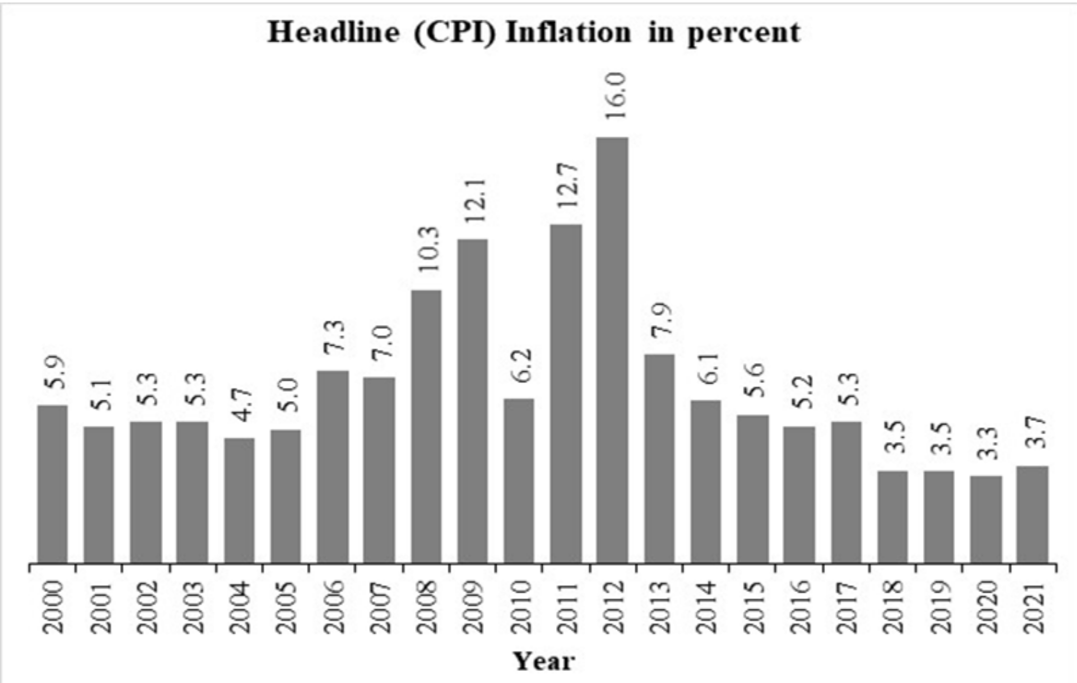
second half of the 1990s, along with the implementation of prudent fiscal and tight monetary policy stance as alluded by Shitundu and Luvanda, (2000).

Therefore, in general, the 1980s and 1990s were challenging periods as far as Tanzania's inflation profile is concerned. Despite implementing a range of policy measures to reduce inflation rates, inflation remained high, averaging around 26.6 percent between 1981 and 1999 (World Bank, 2022). As noted in the available empirical literature, high inflation during the period was driven by external factors, such as high and volatile global commodity prices as well as domestic factors such as large fiscal deficit.

4.2.3 The 2000s to Present Day Episode

Figure 3 depicts the trends of the overall inflation rates in Tanzania over the period 2000–2021.



Source: Author's Design using data from World Bank (2022)

Figure 3. Trends in Headline Inflation in Tanzania from 2000–2021

As depicted in Figure 3, during the early 2000s, Tanzania experienced relatively low and stable inflation rates compared to previous decades (World Bank, 2022). Between 2000 and 2005, inflation averaged 5.2 percent (World Bank, 2022). Afterwards, inflation in Tanzania exhibited an upward trajectory from 2006, reaching 12.7 percent and 16.0 percent in 2011 and 2012, respectively (World Bank, 2022). The increase in inflation during this period was attributed to a combination of factors, including inadequate rainfall and high international oil and food prices, as reported by the Bank of Tanzania (2013).

In response, the government implemented several measures, including the importation of sugar, which accounts for 3.4 percent of the CPI basket, ensuring adequate food supply in regions of shortage, enhancing the stock of the National Food Reserve Agency, and ensuring timely accessibility and application of subsidized inputs such as fertilizers, pesticides, and improved seeds (Bank of Tanzania, 2013). Additionally, the government worked towards resolving the energy crisis to stabilize the power supply (Bank of Tanzania, 2013). Apart from government measures, the Bank of Tanzania also carried out monetary policy tightening during this period. The Bank increased the statutory minimum reserve requirement ratio (SMR) on total deposits held by commercial banks from 20.0 percent to 30.0 percent (Bank of Tanzania, 2013). Moreover, the bank rate was raised to 12.0 percent in November 2011 and 9.6 percent in October 2011 from 7.6 percent, which had prevailed since January 2010 (Bank of Tanzania, 2013). Additional actions taken during the period included a reduction in the banks' prudential limit on foreign currency Net Open Positions (NOPs) to 10.0 percent from 20.0 percent (Bank of Tanzania, 2013).

The inflationary pressures began to ease in 2013, partly thanks to the moderation of global oil prices. As a result, inflation in Tanzania slowed down from 7.9 percent in 2013 to 5.3 percent in 2017 (World Bank, 2022). During this period, the Bank of Tanzania maintained a tight monetary policy stance aimed at reducing the inflationary pressures in the economy and creating a conducive environment for businesses and investors to thrive.

Tanzania has experienced relatively low inflation since the outbreak of the COVID-19 pandemic in 2019. According to Word Bank (2022), in 2020, the annual average inflation rate was 3.5 percent, which is well below the EAC convergence criterion ceiling of 8 percent (World Bank, 2022). This was attributed to the stability of the exchange rate and adequate domestic food supply, which have partly protected the country from the impact of rising global food prices (Bank of Tanzania, 2022).

Therefore, Inflation rates in Tanzania have generally been on a gradual decline during the 2000s, 2010s, and 2020s, with occasional spikes. According to available literature, this trend is believed to be attributed to the diminishing impact of global macroeconomic shocks in line with improved macroeconomic management, and the delayed effects of structural reforms. However, the role of other factors cannot be ruled out.

4.3 Challenges Facing Tanzania's Inflation Regime

As discussed in the preceding sections, the policy reforms implemented in Tanzania were intended to maintain low and stable inflation over time. There has been success in managing inflation, especially after the turn of the decade. Despite the success, the country has encountered some challenges in managing inflation, and policymakers need to continue to monitor and adjust policies to ensure that the regime remains effective in the long term. These challenges can be grouped into structural constraints, policy constraints and exogenous constraints (Rutasitara, 2004; Dessus, 2008; Ndanshau, 2010; Adam et al, 2012); Dillon and Barrett, 2016; Kilindo, 1997).

4.3.1 Structural Constraints

Structural constraints are one of the challenges facing Tanzania's inflation regime (Rutasitara, 2004; Ndanshau, 2010). Structural constraints refer to the underlying features of the economy that limit its ability to control inflation. Some of the key structural constraints affecting Tanzania's inflation regime include a narrow tax base, limited financial inclusion and a large informal sector as discussed below.

Tanzania's narrow tax base is one of the structural constraints that pose a challenge to the effective management of inflation (Kilindo, 1997; Solomon and De Wet, 2004; Ndanshau, 2010). This narrow tax base results from a large informal sector, weak tax administration, and low tax compliance as described by Solomon and De Wet (2004). The government's ability to generate revenue is limited, which can lead to fiscal imbalances and inflationary pressures (Kilindo, 1997). The government may resort to printing money to finance its operations, which can increase the supply of money in the economy and contribute to inflation as described by (Solomon and De Wet, 2004). The narrow tax base may also limit the government's ability to invest more in infrastructure and other development projects, which can limit the economy's growth potential.

On the other hand, financial inclusion in Tanzania is low, with a significant proportion of the population lacking access to formal financial services (Ahmed and Jianguo, 2014). This can constrain the effectiveness of the monetary policy, as it reduces the reach of the banking system and limits the transmission of monetary policy (see for example Mkai and Aikaeli, 2020; Bashagi et al., 2019; Mbowe, 2015; Montiel et al., 2012; and Davoodi et al 2013). This can create challenges in controlling inflation, as monetary policy measures may not reach all segments of the economy. Limited financial inclusion can also limit the availability of credit, which can constrain the growth potential of the economy (Ahmed and Jianguo, 2014).

In addition, Tanzania's economy is highly informal, with a large proportion of economic activity taking place outside the formal sector (Bagachwa, 2019; Tripp, 1997). This may likely limit the government's ability to regulate economic activity and control inflation.

Therefore, to address these structural constraints, Tanzania's government and policymakers may opt to institute and implement policies that can widen the tax base, formalisation, and financial inclusion. For example, the government can implement policies that encourage entrepreneurship, investment, and the formalisation of the economy. Additionally, the government can implement policies that increase tax compliance and improve tax administration to expand the tax base. The government can also promote financial inclusion by improving access to financial services, particularly in rural areas.

4.3.2 Policy Constraints

Over the years, there have been several policy-related challenges encountered in Tanzania's attempts to manage and curb inflation. Among the major policy-related challenges that have been identified by the current study include political interference, limited institutional capacity, and lack of coordination between monetary and fiscal policy as discussed below.

Political interference can lead to inconsistent policy decisions, which can create uncertainty and contribute to inflationary pressures (Bernanke and Mishkin, 1997). The need for political support and approval can also lead to suboptimal policy decisions, such as keeping interest rates artificially low to stimulate economic growth, even when the cost of doing so is higher inflation (Hammond et al., 2009; Alexianu, 2020).

Limited institutional capacity is another challenge that poses a challenge in implementing macroeconomic policies effectively, which can limit the effectiveness of policy measures (see for example Kessy, et al. 2017; Alexianu, 2020). For example, weak institutional capacity can impede the implementation of effective monetary policy by limiting the ability of policymakers to design, implement, and monitor policy (Kessy, et al. 2017). This can include challenges related to data collection and analysis, as well as the ability to coordinate with other government agencies and international organisations to implement effective policy reforms (Kessy, et al. 2017).

Another challenge that has been identified in Tanzania's efforts to control inflation is the limited coordination between the fiscal and monetary policy (Alexianu, 2020). Inconsistent policy objectives between the Central Bank and the Ministry of Finance may result in conflicting policy decisions, which can undermine the effectiveness of inflation control policies (Alexianu, 2020). For example, if the central bank raises interest rates to control inflation, but the government increases spending or reduces taxes, the net effect may be inflationary.

4.3.3 Exogenous Constraints

Exogenous constraints refer to external factors that can impact inflation rates in Tanzania. These factors can be grouped into two main categories, namely external shocks and global economic conditions as discussed below.

External shocks in the current context refer to unexpected events that impact the economy and create inflationary pressures. For example, changes in global commodity prices, geopolitical events and changes in global economic conditions can all create inflationary pressures in Tanzania (see for example Dillon and Barrett, 2016; Dessus, 2008).

Changes in global commodity prices, particularly for oil and food, have been identified to significantly impact Tanzania's inflation rates (Adam et al, 2012; Dillon and Barrett, 2016; Dessus, 2008). For instance, if global oil prices increase, the cost of imported oil for Tanzania will increase, which can lead to higher transportation costs and higher prices for goods and services. This can create inflationary pressures in the economy (Dillon and Barrett, 2016; Dessus, 2008).

In addition, geopolitical events, including trade wars, can have a significant impact on inflation rates (Alexianu, 2020). Changes in trade policies can disrupt the availability and cost of imported goods, subsequently leading to higher prices and inflationary pressures in the economy (Alexianu, 2020). Such events are critical to monitor, as they can have far-reaching effects on the stability of the economy and the welfare of individuals and businesses.

On the other hand, global economic conditions can also pose a challenge to inflation management in Tanzania (Alexianu, 2020). Changes in interest rates in other countries such as the Fed's fund rate, for example, may exert pressure on capital flows and exchange rates, which can impact inflation rates in Tanzania even though the current account is not yet fully liberalised. Changes in the global economic environment such as global economic slowdowns can also lead to lower demand for Tanzania's exports, which can lead to lower economic growth and lower inflation rates (Adam et al, 2012).

5. Conclusion

This study has undertaken a comprehensive analysis of inflation dynamics in Tanzania over the past five decades, examining the interplay of government policies, domestic factors, and external shocks. The findings reveal a complex and multifaceted picture of inflation trends, characterized by periods of high and volatile inflation interspersed with periods of relative stability.

The analysis highlights the significant impact of various policy reforms on inflation outcomes. While the implementation of market-oriented reforms, including trade liberalization, privatization, and fiscal reforms, has contributed to macroeconomic stability and reduced inflationary pressures in recent years, challenges remain. These challenges encompass a range of factors, including structural constraints such as a narrow tax base, limited financial inclusion, and a large informal sector, policy constraints such as political interference and limited institutional capacity, and exogenous constraints such as global commodity price volatility and climate change impacts.

The findings of this study have important implications for policymakers. To effectively manage inflation and maintain price stability, it is crucial to broaden the tax base by implementing measures to expand the tax net, improve tax administration, and enhance tax compliance. Furthermore, increasing financial inclusion by expanding access to financial services, particularly for low-income households and small and medium-sized enterprises, is critical. Strengthening institutional capacity within relevant government agencies, such as the central bank and the ministry of finance, is essential to effectively implement and monitor macroeconomic policies. Diversifying the economy by reducing reliance on a narrow range of exports and promoting the development of new sectors is crucial to enhance economic resilience. Finally, strengthening regional and international cooperation is vital to address regional challenges and mitigate the impact of external shocks.

This study acknowledges certain limitations. Firstly, the availability and quality of data may pose some challenges, particularly for certain periods and specific variables. Secondly, the study relies primarily on quantitative and qualitative data analysis, which may not fully capture the complexities and nuances of the social and political factors influencing inflation.

Future research could further explore the role of expectations in driving inflation in Tanzania. Investigating the effectiveness of different monetary policy instruments in controlling inflation under different economic conditions is also crucial. Examining the impact of climate change on inflation in Tanzania, considering its potential impact on agricultural production and food prices, is another important area for future research. Finally, developing more sophisticated econometric models to analyze the complex interplay of factors influencing inflation in the Tanzanian context would provide valuable insights.

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