Inflation Dynamics in Post-Independence Rwanda

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Abstract

This study examines the inflation dynamics in Rwanda from the 1970s to 2021, focusing on policies, trends, challenges, and opportunities in managing inflation. Secondary data sources were used for analysis. The findings show that Rwanda has adopted a multi-faceted approach to inflation control, including macroeconomic policies, economic diversification, and infrastructure investment. The study identifies three distinct episodes of high inflation in the 1970s, early 1990s, and 1994. Since the early 2000s, inflation trends have been erratic, with notable episodes in 2004, 2008-2009, 2012, and 2020. Challenges in managing inflation include import reliance, weak monetary policy transmission, and vulnerability of the agriculture sector. Opportunities for Rwanda lie in economic diversification, improved coordination between fiscal and monetary policy, and sound macroeconomic policies. The study emphasizes the need for a comprehensive approach to inflation management, considering Rwanda's unique circumstances, to achieve stability and inclusive growth through sound policies, diversification, and infrastructure investment.

Key words: Price Level, Inflation, Deflation, Rwanda
J.E.L. classification: E31, E52, 055, 043

1. Introduction

Rwanda, a country that has faced significant challenges with inflation, presents a compelling case study for understanding sustainable economic stability. Following the period of genocide against the Tutsi, Rwanda encountered alarming peak inflation rates of 47.3 percent and 48.2 percent in 1994 and 1995, respectively (Kumar, et al., 1996; Ggombe and Newfarmer, 2017; World Bank, 2022). In response, the government swiftly implemented prudent monetary policies, along with fiscal, structural, and exchange rate measures. As a result, the country has experienced relatively low and stable inflation rates in recent years (Rutayisire, 2010; Malunda and Musana, 2012; Ggombe and Newfarmer, 2017; National Bank of Rwanda, 2021). However, despite these achievements, there remain persistent challenges that require attention to ensure sustained low inflation and foster economic growth. This study aims to comprehensively analyze Rwanda's inflation trends since the 1970s, review the underlying policy frameworks, identify inflation management challenges, and propose potential solutions. By shedding light on these dynamics, our research aims to guide policymakers in implementing effective measures that protect vulnerable populations from the negative impacts of inflation. Given the limited existing research on inflation in Rwanda, this study aims to fill the knowledge gap by conducting a meticulous analysis of inflation indicators over an extended period. Additionally, the study explores the unique socio-political context of Rwanda and its commitment to sustainable development, examining how factors such as political stability, economic diversification, and environmental sustainability influence inflation dynamics. Furthermore, as an active member of the East African Community (EAC) and the African Union (AU), Rwanda provides an intriguing case study for understanding inflation dynamics and facilitating policy alignment at the regional and international levels. By enhancing our understanding of inflation dynamics, we aim to foster regional cooperation, integration, and informed policymaking for sustainable economic growth in Rwanda.

2. Theoretical background

Inflation is a complex economic phenomenon that can have negative effects on the economies of both developed and developing countries, including a misallocation of resources, a decline in economic efficiency, uncertainty and distortion in the price system, a reduction in the purchasing power of individuals and households and redistribution of wealth from savers to borrowers (see for example Sargent and Wallace, 1981; Cecchetti and Krausse, 2002). Therefore, maintaining low and stable inflation is crucial for promoting sustainable economic growth and development. This study provides insights into the inflation dynamics in Rwanda in terms of policies, trends, challenges and recommendations for promoting low and stable inflation and sustainable economic growth. By studying inflation dynamics, policymakers can develop policies to protect the most vulnerable populations from the negative impacts of inflation. This study will contribute to the existing literature on inflation in developing economies, particularly in Africa, and is expected to be of interest to researchers and scholars interested in the economics of inflation.

3. Research methodology

The study adopts an exploratory approach to analyse and synthesise Rwanda's inflation policies and trends. Secondary data from reports, academic studies, and publications are utilised to enrich the analysis. The study also delves into the literature on inflation management in Rwanda and the specific inflation-related challenges the country faces. By addressing the research gap on inflation in Rwanda, this exploratory study provides valuable insights into the policy framework and the challenges involved in managing inflation. The study aims to fill the research gap on inflation dynamics in Rwanda and provide insights into the policy framework and challenges in managing inflation in the study county.

4. Findings

4.1. Evolution of the Policy Framework for Managing Inflation in Rwanda

The policy framework of Rwanda, on the management of inflation, has undergone profound changes since attaining independence in 1962 (Bigsten and Isaksson, 2008; Ggombe and Newfarmer, 2017). The progression of Rwanda's policy framework for inflation management can be classified into three distinct episodes, chronologically identified as the policy framework pre-dating 1994, the policy framework spanning from 1994 to 2000, and the policy framework implemented after 2000 (Bigsten and Isaksson, 2008; Malunda and Musana, 2012; Ggombe and Newfarmer, 2017).

- **Pre-1994 Policy Framework**

In 1962, upon gaining independence, Rwanda adopted a central planning approach to economic development, which involved heavy government intervention in the economy (Ggombe and Newfarmer, 2017). The early years following independence witnessed the implementation of such an approach (Bigsten and Isaksson, 2008; Ggombe and Newfarmer, 2017).

Rwanda's financial system operated under the McKinnon-Shaw model of repression, which was typified by government intervention in the financial system through the imposition of interest rate ceilings, exchange rate controls, and direct credit control, as described by Rutayisire (2015). This era of financial authoritarianism was distinguished by the implementation of direct monetary instruments, as highlighted by Malunda and Musana (2012), and Irankunda (2014).

During this particular episode, the policy framework imposed stringent limitations on trade and foreign exchange transactions, in conjunction with a fixed exchange rate regime (Malunda and Musana, 2012). As demonstrated in Gathani and Stoelinga (2013) and Ggombe and Newfarmer (2017), The development policy of Rwanda adopted a state intervention approach to galvanise local production, while the growth of the economy was primarily propelled by the burgeoning tea and coffee sector, in tandem with the expansion of manufacturing, engendered by the import-substitution industrial strategy.

Under the centrally planned economic policy framework, all importers and imports were subject to quotas, and the conduct of import operations hinged on a license that authorised the disbursement of external currency (Malunda and Musana, 2012). Exporters were mandated by law to repatriate currency earned from the sale of exports, and the authorisation of export licenses was exclusively within the purview of the National Bank of Rwanda (NBR). Notably, NBR received and managed all export earnings. The economic policies during the period led to distortions and overvaluation of the Rwandese Franc (Malunda and Musana, 2012).

During the 1970s, as per the findings of Gathani and Stoelinga (2013), the Ministry of Finance, acting on behalf of the government, imposed price controls on all goods sold within Rwanda, to curb inflationary pressures and minimise price competition from imported commodities. Consequently, the government enforced price controls on goods and services, which instigated shortages and the proliferation of black markets (Rutayisire, 2015). These market interventions gave rise to significant macroeconomic imbalances by the late 1980s (Rutayisire, 2015). Even though inflation was kept largely under control during this period, the economy remained stagnant, and poverty levels persisted at high rates.

Throughout the eighties, Rwanda initiated an economic liberalisation program that was designed to foster private-sector expansion and curtail governmental intervention in the economy. The government eliminated price controls, permitting market forces to dictate prices and liberalised trade and investment policies. Consequently, Rutayisire (2010) notes that price controls were abolished through various measures in 1991. These policy reforms engendered a surge in economic activity, but inflation rates began to escalate towards the end of the 1980s (World Bank, 2022).

After grappling with significant macroeconomic imbalances in the late 1980s, the Government of Rwanda elected to embrace an indirect economic stabilisation approach in the early 1990s (Rutayisire, 2015). This strategy, supported by the IMF and other development partners, placed low inflation at the core of its policy framework in the quest for macroeconomic stability (Rutayisire, 2015).

The epoch preceding the genocide against the Tutsi (1990-91) also signified the onset of the elimination of impediments to trade and foreign exchange transactions, alongside the gradual reinstatement of the market economy (The Commonwealth, 2016). In conjunction with the World Bank and the IMF under the SAP, the Government of Rwanda launched multiple reforms aimed at promoting macroeconomic stability and reviving industrial production and growth (Kumar et al., 1996; Gathani and Stoelinga, 2013; Ggombe and Newfarmer, 2017). Among these reforms was the overhaul of the exchange rate system in 1990, which entailed the liberalisation of foreign exchange markets, the sanctioning of residents to hold accounts in foreign currencies, and the market-driven determination of exchange rates (Irankunda, 2014).

In 1992, the government was dispensed with direct credit control. Additionally, the marketing, processing, and exportation of coffee were liberalised, and export taxes were abolished (Ggombe and Newfarmer, 2017).

The implementation of structural and other macroeconomic reforms leading up to the genocide against the Tutsi was impeded by the civil war that took place from 1990 to 1993, thus curtailing the progress of these changes (Kumar et al., 1996). As a result, economic growth reforms were only partially implemented, according to Andersen (2002). This interruption in the implementation of reforms had a profound impact on the trajectory of Rwanda's economy, as it hindered the country's efforts to overcome the challenges that had previously plagued the economy.

❖ Policy Framework from 1994 to 2000

The 1990s witnessed political instability and outbreaks of violence in Rwanda, which had a devastating impact on the economy. Inflation rates were highly erratic, with some years witnessing double-digit inflation (World Bank, 2022). In August 1994, Rwanda was reeling from one of the most atrocious crises of any state in modern history. After a four-year civil war, the country experienced a genocide against the Tutsis, which led to the estimated slaughter of over a million people in just 100 days (Vandeginste, 2014). The genocidal government's officials and the army, along with two million Rwandans (a third of the population), fled to neighbouring countries. The peak inflation rate was estimated in 1994 and 1995, during the genocide against the Tutsi, when hyperinflation ravaged the country (World Bank, 2022).

In the aftermath of the ruinous effects of the genocide against the Tutsis on the Rwandan economy in 1994, the government initiated a comprehensive reconstruction program hinged on robust economic policies, stability, and peace (Porter and McCreless, 2008). The reconstruction program also embarked on long-term national reconstruction reforms aimed at restoring peace, stability, and national reconciliation (The Government of Rwanda, 2001, Ggombe and Newfarmer, 2017). These reconstruction reforms aimed to lay the groundwork for economic growth and improvements in the well-being of the populace, as well as the reconstruction of economic and social institutions, as seen in (Malunda and Musana, 2012), (The Commonwealth, 2016) and (Ggombe and Newfarmer, 2017).

Between 1994 and 2000, several reforms to the policy framework in Rwanda that embraced a market economy were intensified, which included, among other things, the overhaul of the financial sector (monetary and financial regimes), the acceleration of the liberalisation of the exchange rate, trade, and investment policies, and measures to privatise state-owned enterprises (The Government of Rwanda, 2001; Irankunda, 2014).

The Government of Rwanda implemented a series of reforms in the financial sector, which involved the elimination of direct control of lending and deposit interest rates in favour of market forces, the removal of credit rationing and the elimination of requirements that banks lend to specific sectors, as well as strengthening of the National Bank of Rwanda's independence in regulating the economy (The Government of Rwanda, 2001). The direct credit controls were removed in 1992 and the full liberalisation of interest rates came into effect in 1996 (Rutayisire, 2010).

Since 1995, the Central Bank of Rwanda has adopted a monetary targeting framework, wherein broad money serves as a nominal anchor, reserve money is regarded as an operating target, and price stability is viewed as the ultimate policy objective (Irankunda, 2014; Karuhanga and Nyirakanani, 2015). To regulate the liquidity in the economy the central bank implements monetary policy using three instruments, namely OMOs, the discount rate and the reserve requirement (Irankunda, 2014).

As a component of the broader reforms instituted in Rwanda during this epoch, the financial and monetary sectors underwent liberalisation, which culminated in the assimilation of novel currency exchange regulations, the establishment of new private commercial banks, and the privatisation of state-owned banks, as noted by Irankunda (2014). Rwanda advanced towards progressively market-driven interest rates and exchange rates. These reforms also aimed to promote competition, innovation, and efficiency in the financial sector.

Concerning the exchange rate, the Government of Rwanda during the second half of the 1990s introduced a flexible exchange rate regime and allowed the Bureau de Change and commercial banks to trade foreign currencies using market-determined rates (Irankunda, 2014). In the case of exchange rate policy, the reforms commenced with the launch of the SAPs in the 1990s. Following the reform, the exchange rate of the Franc Rwandais against other currencies was determined by the market forces of demand and supply, foreign exchange bureau were established, residents were permitted to hold accounts in foreign currencies with commercial banks, the inward and outward investments were authorised, and current account operations were liberalised (Rutayisire, 2015).

The endeavour to liberalise the foreign exchange market was partially intended to facilitate convenient access by private economic actors to global currencies, as expounded by Porter and McCreless (2008). The government liberalised the exchange rate regulations in 1998 and executed full current account liberalisation (Irankunda, 2014). Under this scheme, the National Bank of Rwanda (NBR) offers a predetermined amount of foreign exchange on a marginal price basis, occasionally intervening to mitigate disturbances. However, the precarious financial state of some commercial banks impeded participation in the inter-bank, securities, and foreign-exchange markets.

As part of the broader policy reforms aimed at promoting economic growth, Rwanda passed the Privatisation and Public Investment Law in 1996. This law conferred upon the government the authority to liquidate, restructure, and divest, either partially or wholly, any non-performing public enterprise. The privatisation involved also previously state-owned banks (Malunda and Musana, 2012). The privatisation of public enterprises in Rwanda intended to control inflation indirectly by promoting competition, improving efficiency, reducing the fiscal burden on the government, and attracting more investment (Malunda and Musana, 2012).

As part of the policy reforms aimed at trade and investment, the Rwandan government gradually reduced external tariffs to a new tariff structure of 25-15-5-0 percent in 1999. The government also eliminated export taxes and implemented a more market-oriented regulatory framework to revitalise the coffee sector, which is one of the principal sources of foreign exchange revenues. According to available literature, although inflation was not the main objective of these reforms, these measures are argued to contribute to reducing inflationary pressures (Malunda and Musana, 2012).

- **Policy Framework after 2000**

After the emergency planning that was implemented from 1994 through 2000, Rwanda underwent a paradigm shift towards long-term development planning, beginning in 2000 (The Commonwealth, 2016). This shift was part of the policy reforms aimed at laying the groundwork for sustainable economic growth and development.

In the early 2000s, the government embarked on policies and strategies aiming to transform the country into a knowledge-based economy (Bigsten and Isaksson, 2008). It adopted the long-term development Vision 2020, which aspires to take the nation into a middle-income position by 2020. The vision is constructed on six pillars, emphasising agricultural productivity, private sector competitiveness, infrastructural development, regional economic integration and cooperation, building social capital and good governance, and comprehensive human resources development (Ministry of Finance and Economic Planning, 2000). The vision was translated into mid-term implementation strategies namely the Poverty Reduction Strategic Paper (PRSP) and the First and Second Economic Development and Poverty Reduction Strategies (EDPRS 1 and 2) (The Commonwealth, 2016; Bigsten and Isaksson, 2008).

During the period, Rwanda's policy framework for managing inflation continued to include a combination of monetary policy, fiscal policy, exchange rate policy, and macroprudential policy. The government also implemented various other measures to promote price stability, including efforts to boost domestic production and reduce import dependence (The Commonwealth, 2016).

As part of the policy reforms geared towards controlling inflation, Rwanda instituted a series of sweeping changes to enhance the efficacy of monetary policy (Irankunda, 2014). These changes included the introduction of a new central-bank law and the implementation of indirect monetary policy instruments. The autonomy of the central bank in pursuing macroeconomic objectives in Rwanda was further consolidated and enshrined in law no 55/2007, which was ratified on 30/11/2007 (Irankunda, 2014). To absorb or inject liquidity, the central bank initially employed weekly auctions and an overnight deposit facility. However, in 2008, the central bank replaced these instruments with repo operations (Irankunda, 2014). Additionally, the central bank utilises foreign exchange sales as a supplementary monetary policy instrument, primarily to mitigate any unexpected liquidity fluctuations in the market (National Bank of Rwanda, 2008). In February 2009, the national bank of Rwanda reduced the reserve ratio from 8 to 5 percent to address short-term liquidity issues.

After revamping its policy framework for managing inflation in the post-independence era, Rwanda has continued to make significant strides in modernising its monetary policy framework over recent. In January 2019, the National Bank of Rwanda (NBR) adopted a price-based monetary policy framework, which replaced the previous monetary targeting framework (Vlček, et al., 2020). This new framework allows the central bank to use the interest rate as its main policy tool to achieve its inflation target (Vlček, et al., 2020). The price-based monetary policy framework is expected to enhance the effectiveness of monetary policy in achieving price stability and promoting sustainable economic growth in Rwanda.

From the fiscal point of view, the government continued to implement measures aiming at limiting recourse to domestic financing while ensuring that the overall budget is in line with the available resources (Karuhanga and Nyirakanani, 2015). The improvement in the fiscal situation was also linked to enhanced tax and customs administration and tax reforms (Karuhanga and Nyirakanani, 2015). These reforms encompass the implementation of numerical fiscal rules, the establishment of fiscal institutions, and the utilisation of medium-term budgetary frameworks (MTBFs), in conjunction with the augmentation of budgetary procedures associated with the formulation, approval, and implementation of yearly budgetary plans.

Rwanda also implements the Macroeconomic convergence criteria set under the envisioned East Africa Monetary Union (see Kuteesa, 2012). The convergence criteria were set to ensure that members realize a unifying and stable policy state after the monetary union. The convergence criterion for inflation is a ceiling of 8 percent (see Kuteesa, 2012).

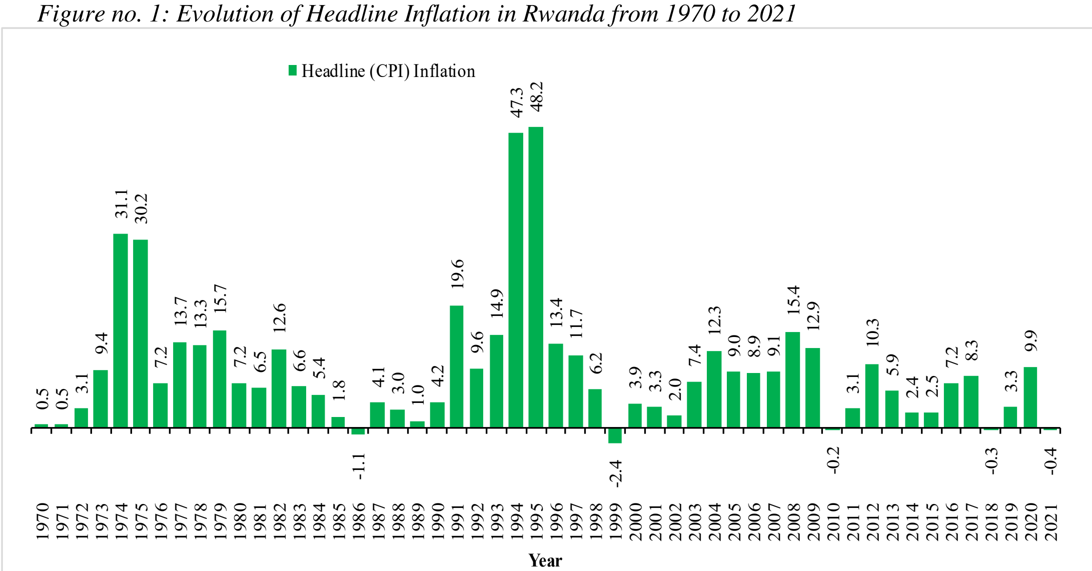
As part of the broader macroeconomic policy reforms, Rwanda also implemented the liberalisation of current account operations, including imports, exports, and services, was also undertaken, and some of the previous restrictions on capital flows were either reduced or eliminated. The period also saw Rwanda fully liberalising the capital account in 2010 to allow foreign portfolio inflows (Irankunda, 2014) similar to other study countries. These reforms were not aimed solely at curbing inflation, but they did have an impact on inflation rates.

4.2. Inflation Trends in Rwanda

Inflation trends in Rwanda over the last five decades can be examined through three key periods: the pre-1994 trend, the trends from 1994 to 2000, and the trends after 2000. Each of these periods is analysed in chronological order to provide a comprehensive understanding of how inflation has evolved in Rwanda over time. The various policy reforms and macroeconomic factors that have influenced inflation in each period are also explored, drawing on insights from empirical literature by Bigsten and Isaksson (2008), Ggombe and Newfarmer (2017) and others.

Figure no. 1 illustrates the evolution of Rwanda's overall (headline) inflation rate from 1970 to 2021.

Figure no. 1: Evolution of Headline Inflation in Rwanda from 1970 to 2021



Source: Author's compilation based on data from World Bank (2022)

❖ Inflation Trends in Rwanda Before 1994

During this period as illustrated by Figure 1, the country’s headline inflation trajectory has been somewhat erratic with a general slight decreasing trend. Headline inflation averaged 8.8 percent with a median of 12.95 percent (World Bank, 2022). Headline inflation also ranged between a minimum of −1.1 percent recorded in 1986 and a maximum of 31.1 percent recorded in 1974 (World Bank, 2022).

It can also be noted that the Rwandan economy experienced three epochs of extreme inflation over the period 1969 – 1994 as can be evidenced by Figure 1. The first period of high inflation was that of 1974 and 1975 where headline inflation averaged 30.7 percent, the second period was that of 1979 where headline inflation reached 15.7 percent and the third period was that of 1991, 1992 and 1993 where headline inflation averaged 14.7 percent (World Bank, 2022).

The first episode followed the first global oil price shock that occurred in 1973-74 that also affected other countries in the region (Bigsten and Isaksson, 2008). The shock emanated from the embargo enforced by the Organisation of the Petroleum Exporting Countries (OPEC) against all nations deemed to be backers of Israel during the Yom Kippur War, which led to surges in energy costs (Kilian, 2014). This embargo engendered significant economic and geopolitical distress for countries worldwide, including Rwanda (Kilian, 2014). The subsequent global oil shock in 1979 produced a comparable effect in Rwanda, elevating inflation to 15.7 percent, albeit lower than the initial shock (Kilian, 2014; World Bank, 2022).

In the early 1990s (1991, 1992 and 1993), Rwanda experienced high levels of inflation, which was largely the result of political instability and civil unrest that had begun in the late 1980s. In 1990, the Rwandan Patriotic Front (RPF) launched an armed struggle against the government, which led to a period of intense fighting and instability (Bigsten and Isaksson, 2008). During this time, inflation in Rwanda reached very high levels, with annual inflation rates averaging 14.7 percent in 1991, 1992 and 1993 (World Bank, 2022). This was due in part to the disruption of economic activity caused by the conflict, as well as to the government's attempts to finance the war effort by printing more money (Andersen, 2000). The period's elevated inflation was also attributed to the famines that transpired in 1989-1990, 1991, and 1993 (Bigsten and Isaksson, 2008).

Additionally, the economic policies pursued by the government during this period (such as price controls on key goods and services) were not always conducive to controlling inflation as alluded by Ggombe and Newfarmer (2017).

❖ Inflation Trends in Rwanda from 1994 to 2000

The year 1994 was marked by the genocide against the Tutsis, which lasted from April to July of that year. As a result of the genocide, the country experienced a severe breakdown of law and order, with widespread violence and destruction of property (Ggombe and Newfarmer, 2017). This had a significant impact on the economy, including on inflation which surged to 47.3 percent in 1994 (World Bank, 2022). This was largely due to the disruption of economic activity caused by the conflict, which led to shortages of goods and services and a sharp increase in demand for necessities (Andersen, 2000; Ggombe and Newfarmer, 2017). In addition, the government was also forced to finance the costs of the war and the post-genocide recovery efforts, which resulted in a significant increase in the money supply and further fuelled inflation (Mawejje and Odhiambo, 2020).

In 1995, as the country began to emerge from the immediate aftermath of the genocide against the Tutsi, inflation in Rwanda rose to 48.2 percent, largely as a result of the devastating impact of the genocide on the economy (World Bank, 2022).

In the second half of the 1990s, Rwanda underwent a period of economic recovery and stabilisation, following the genocide against the Tutsi and the civil war in the early part of the decade (Kumar, et al. 1996(b)). During this period, inflation in Rwanda began to gradually decline, although it remained relatively high compared to other countries in the region (World Bank, 2022).

In 1996, annual inflation in Rwanda stood at around 13.4 percent, but it began to decrease steadily over the next few years (World Bank, 2022). By 2000, annual headline inflation had fallen to around 3.9 percent (World Bank, 2022). This decline in inflation was due in part to the government's efforts to stabilise the economy and promote growth, including the implementation of tight monetary policies and the promotion of private-sector development (Andersen, 2000). The government also worked to reduce its budget deficit, which had been a major contributor to inflation in the past (Andersen, 2000). In addition, the country benefited from increased foreign aid and investment during this period, which helped to stimulate economic growth and reduce inflationary pressures (Andersen, 2000).

❖ **Inflation Trends in Rwanda After 2000**

As can be seen from Figure 1, headline inflation in Rwanda exhibited a mixed trend between 2001 and 2021. Three periods of high inflation can be identified during this episode that includes 2004 when inflation reached 12.3 percent, 2008 and 2009 when inflation averaged 14.2 percent, 2012 when inflation reached 10.3 percent and 2020 when inflation reached 9.9 percent (World Bank, 2022).

In 2004, Rwanda experienced a significant spike in inflation due to a combination of factors, including a global food and fuel price shock, regional instability, and droughts. Annual inflation rates reached as high as 12.3 percent in 2004, up from 7.4 percent in the previous year (World Bank, 2022; National Bank of Rwanda, 2005).

The high inflation witnessed in Rwanda during 2008 and 2009 was the culmination of several domestic and global factors. These included the adverse impact of rising food and fuel prices on the global market, as well as the country's vulnerability to domestic challenges such as drought, depreciation of the national currency, expansionary monetary policy, and a burgeoning fiscal deficit (National Bank of Rwanda, 2009).

Inflation more than tripled in 2012 to 10.3 percent from 3.1 percent in 2011, driven mainly by food prices and the depreciation of the domestic currency (National Bank of Rwanda, 2013; World Bank, 2022). The high inflation in Rwanda in 2012 was mainly caused by a combination of external and internal factors, including rising food and fuel prices, exchange rate depreciation, and droughts in neighbouring countries (National Bank of Rwanda, 2013). The government and central bank responded with policies aimed at tightening monetary conditions and promoting economic stability (National Bank of Rwanda, 2013). Thereafter, inflation dropped consistently to reach 2.5 percent in 2015 on the back of declining food prices boosted by favourable weather conditions (National Bank of Rwanda, 2016; World Bank, 2022).

In 2020, the inflation rate increased to 9.9 percent mainly due to the impact of the COVID-19 pandemic, which disrupted supply chains and increased the cost of imported goods (National Bank of Rwanda, 2021; World Bank, 2022). The escalation of headline inflation in 2020 was further propelled by the inflation of food prices, which occurred against the backdrop of impairment to food crops caused by torrential rains (National Bank of Rwanda, 2021). Additionally, the upward adjustment of public transportation fares in May 2020, consequent to the implementation of COVID-19 protocols, contributed to the inflationary pressures (National Bank of Rwanda, 2021).

4.3. Challenges and Opportunities in Managing Inflation in Rwanda

Maintaining price stability is a crucial aspect of economic growth and development for any nation. The government of Rwanda has made considerable efforts towards stabilising its economy and promoting growth but has encountered several challenges that hinder effective inflation control in Rwanda.

❖ **Challenges**

One of the significant challenges identified by the present study in managing inflation in Rwanda is the external factors or shocks. Rwanda heavily relies on imports for essential goods and services, such as oil products, machinery, and equipment (Hausmann and Chauvin, 2015). As argued by Hausmann and Chauvin (2015), the lack of domestic production capacity and the high cost of production makes it difficult to reduce the reliance on imports, leading to vulnerability to global shocks such as changes in global commodity prices and fluctuations in foreign exchange rates. These shocks can have a significant impact on the economy and contribute to inflationary pressures.

Another major challenge faced by the Central Bank of Rwanda in managing inflation identified by the current study is the inefficient transmission mechanism of monetary policy. The transmission mechanism refers to the process by which changes in monetary policy affect the economy (Berg et al, 2013). In Rwanda, based on the available literature, the transmission mechanism is weak, which can make it difficult to control inflation (Kigabo, 2018). One way in which this inefficiency manifests is that changes in policy interest rates may not always translate into changes in lending rates and credit availability, ultimately limiting the effectiveness of monetary policy in controlling inflation (Kigabo and Kamanzi, 2018). Another reason for the inefficiency of the transmission mechanism in Rwanda could be the lack of infrastructure and development in the financial sector, which limits the ability of the Central Bank to implement monetary policies effectively (Irankunda, 2014; Kigabo, 2018; Kigabo and Kamanzi, 2018).

Another challenge in inflation management is the limited access to credit faced by both businesses and households. This lack of access to credit can lead to a variety of problems, including increased demand for money, which in turn can contribute to inflationary pressures (Ali and Duponchel, 2014). This issue can also stifle economic growth and development, as businesses and households struggle to access the financial resources they need to thrive (Ali and Duponchel, 2014). To address this challenge, policymakers must focus on promoting financial inclusion and improving access to credit. This can be achieved through a variety of measures, such as expanding the availability of microcredit and other forms of small-scale lending, as well as creating incentives for banks and other financial institutions to lend to underserved communities. By taking these steps, the Government can help to ensure that all businesses and households have access to the credit they need to succeed, thus promoting overall economic stability and growth.

The present study identifies limited fiscal space as another challenge that affects the management of inflation in Rwanda (Lledo and Perrelli, 2021). The country has limited resources to respond to external shocks and economic downturns, which can make it difficult to implement countercyclical policies that can help stabilise the economy and control inflation (Budnevich, 2002). As argued by Budnevich (2002), countercyclical policies such as increasing government spending or reducing taxes can help to stimulate economic growth and cushion the economy against external shocks.

In addition to the challenges discussed earlier, Rwanda also faces several structural constraints that can hinder effective inflation control. One of these constraints includes limited domestic production capacity (Malunda, 2012). The limited domestic production of basic goods and services, such as food and energy, can make Rwanda vulnerable to supply shocks and price fluctuations in the international market. This can lead to increased prices for these goods and services, which can contribute to inflationary pressures. To overcome this structural constraint, the government of Rwanda may need to adopt policies that promote domestic production capacity and improve financial inclusion.

Additionally, the agriculture sector's vulnerability to weather shocks and disease outbreaks can cause supply-side shocks, leading to inflationary pressures. Rwanda's economy heavily relies on agriculture, and any disruption to the sector can result in a shortage of food supply, thereby increasing the prices of food and other essential commodities (Huggins, 2009). This can have a significant impact on inflation, particularly given that food accounts for a large share of the inflation basket in Rwanda (World Bank, 2022). To address this challenge, the government of Rwanda may need to adopt policies that promote agricultural diversification and climate-resilient agriculture. These policies could include investments in irrigation systems, crop insurance programs, and research and development to develop new crop varieties that are resistant to weather shocks and diseases. By promoting a more diversified and resilient agricultural sector, Rwanda can reduce its vulnerability to supply-side shocks and help to maintain price stability.

❖ Opportunities

In addition to the challenges, Rwanda also has several opportunities that can be leveraged to manage inflation effectively. Economic diversification is one such opportunity. Rwanda has already made significant progress in diversifying its economy away from agriculture and towards manufacturing, services, and tourism (Mazimhaka, 2007). This can help reduce the country's dependence on imports and boost domestic production of key goods and services, thereby reducing inflationary pressures. Improved fiscal and monetary policy coordination in Rwanda also presents a significant opportunity for managing inflation. In the past, the lack of coordination between the government and the central bank led to conflicting policy decisions that exacerbated inflationary pressures (Ndarihoranye, Alang'o and Omwono, 2020). However, in recent years, policymakers have taken steps to improve communication and coordination between the two institutions (Ndarihoranye, Alang'o and Omwono, 2020). Regular meetings and consultations are now held, and a formal framework for policy coordination has been established (Ndarihoranye, Alang'o and Omwono, 2020). As a result, the government and the central bank are now working together more effectively to achieve the common goal of maintaining price stability and promoting economic growth. This coordinated approach has helped to reduce uncertainty and boost confidence in the economy, making it more attractive to foreign investors.

5. Conclusions

Rwanda has implemented significant changes in its policy framework to manage inflation, including a flexible exchange rate regime, inflation-targeted monetary policies, and efforts to boost domestic production and reduce import dependence. The country has experienced several episodes of high inflation, with distinct periods in the 1970s, early 1990s, and 1994. Since 2000, inflation trends have been mixed, with notable peaks in 2004, 2008-2009, 2012, and 2020. Challenges in managing inflation include heavy reliance on imports, weak monetary policy transmission, and vulnerability in the agriculture sector. To address these challenges, Rwanda should prioritize policies that promote economic diversification, infrastructure investment, and sound macroeconomic management. The study also identifies opportunities in managing inflation, such as improved coordination between fiscal and monetary policies and leveraging economic diversification. By seizing these opportunities and implementing effective policies, Rwanda can reduce inflationary pressures, foster long-term economic growth, and promote inclusive development. The study emphasizes the importance of managing inflation for Rwanda's economic stability and the well-being of its people.

6. References

- Ali, D.A., Deininger, K. and Duponchel, M. 2014. Credit constraints and agricultural productivity: Evidence from rural Rwanda. *Journal of Development Studies*, *50*(5), pp.649-665. https://doi.org/10.1080/00220388.2014.887687
- Andersen, R. 2000. How multilateral development assistance triggered the conflict in Rwanda. *Third World Quarterly* 21.3. https://doi.org/10.1080/713701045
- Berg, MA, Charry, ML, Portillo, MRA. and Vlcek, MJ, 2013. *The monetary transmission mechanism in the tropics: A narrative approach*. International Monetary Fund. https://doi.org/10.5089/9781484398135.001
- Bigsten, A. and Isaksson, AS. 2008. Growth and poverty in Rwanda: Evaluating the EDPRS 2008–12. *Country Economic Report*, *3*.
- Budnevich, LC., 2002. *Countercyclical fiscal policy: A review of the literature, empirical evidence and some policy proposals* (No. 2002/41). WIDER Discussion Paper. http://dx.doi.org/10.1057/9781403990099_14
- Cecchetti, SG and Krause, S. 2002. Central bank structure, policy efficiency, and macroeconomic performance: exploring empirical relationships. *Review-Federal Reserve Bank of Saint Louis*, *84*(4), pp.47-60. http://dx.doi.org/10.20955/r.84.47-60

- Gathani, S. and Stoelinga, D. 2013. Understanding Rwanda's agribusiness and manufacturing Sectors. The International Growth Centre.
- Ggombe, K. and Newfarmer, R. 2017. Rwanda: From devastation to services-first transformation, The United Nations University World Institute for Development Economics Research, Finland. http://dx.doi.org/10.35188/UNU-WIDER/2017/308-0
- Ggombe, KM. and Newfarmer, RS. 2018. From devastation to services-first transformation. *Industries without Smokestacks*, p.316. http://dx.doi.org/10.35188/UNU-WIDER/2017/308-0
- Ghosh, A. and Phillips, S. 1998. Warning: Inflation may be harmful to your growth. *Staff Papers*, *45*(4), pp.672-710. https://doi.org/10.5089/9781451972771.024
- Hausmann, R. and Chauvin, J., 2015. Moving to the adjacent possible: Discovering paths for export diversification in Rwanda. *CID Working Paper Series*.
- Huggins, C., 2009. Agricultural policies and local grievances in rural Rwanda. *Peace Review*, *21*(3), pp.296-303. http://dx.doi.org/10.1080/10402650903099351
- Irankunda, J. 2014. *The effectiveness of monetary policy in Rwanda*. The Common Market for Eastern and Southern Africa Monetary Institute (CMI).
- Karuhanga, KW, and Nyirakanani, R. 2015. *Effects of Fiscal Policy on Conduct and Transmission Mechanism of Monetary Policy in Rwanda*. The Common Market for Eastern and Southern Africa Monetary Institute (CMI).
- Kigabo, R.T., and Kamanzi, C. 2018. Requirements for using interest rate as an operating target for Monetary policy: the case of Rwanda. BNR Economic Review, vol. 13, pp. 1–26.
- Kigabo, T. 2018. Monetary Transmission Mechanisms in Rwanda. *East Africa Research Papers in Economics and Finance* EARP-EF No. pp. 29–29.
- Kilian, L. 2014. Oil price shocks: Causes and consequences. *Annu. Rev. Resour. Econ.*, *6*(1), pp.133-154. https://doi.org/10.1146/annurev-resource-083013-114701
- Kumar, K, et al. 1996(b). *Rebuilding post-war Rwanda: The role of the international community* (Vol. 76). Centre for Development and Evaluation, US Agency for International Development.
- Kumar, K., *et al*. 1996. *The international response to conflict and genocide: Lessons from the Rwandan experience*. Steering Committee of the Joint Evaluation of Emergency Assistance to Rwanda.
- Kuteesa, A. 2012. *East African regional integration: challenges in meeting the convergence criteria for monetary union* (No. 677-2016-46683). http://dx.doi.org/10.5539/ijef.v4n10p147
- Lledo, VD. and Perrelli, MR. 2021. *SDG Financing Options in Rwanda: A Post-Pandemic Assessment*. International Monetary Fund.
- Malunda, D. and Musana, S. 2012. *Rwanda case study on economic transformation.* Report for the African Centre for Economic Transformation (ACET) Institute of Policy Analysis and Research, (IPAR) Rwanda.
- Mawejje, J. and Odhiambo, NM. 2020. The dynamics of fiscal deficits in Rwanda: a review. *African Journal of Development Studies*, *10*(3), p.79. http://dx.doi.org/10.31920/2634-3649/2020/10n3a5
- Mazimhaka, J., 2007. Diversifying Rwanda's tourism industry: a role for domestic tourism. *Development Southern Africa*, *24*(3), pp.491-504. http://dx.doi.org/10.1080/03768350701445590
- Ministry of Finance and Economic Planning. 2000. *Rwanda Vision 2020*. Kigali, Rwanda.
- National Bank of Rwanda. 2005-2021. *Annual Report*. Kigali, Rwanda.
- Ndarihoranye, A., Alang'o, G. and Omwono, O., 2020. Fiscal and Monetary Policies Coordination Rwanda Experience. *Randwick International of Social Science Journal*, *1*(2), pp.193-203. http://dx.doi.org/10.47175/rissj.v1i2.44
- Porter, M., McCreless. 2008. *Rwanda: national economic transformation*. Harvard Business School.
- Rusuhuzwa, TK. and Rusuhuzwa, TK., 2021. Monetary Transmission Mechanism in Rwanda. *Monetary Policy in Rwanda: 1964—Present*, pp.87-110. http://dx.doi.org/10.1007/978-981-33-6746-3_4
- Rutayisire, MJ. 2010. *Economic liberalisation, monetary policy and money demand in Rwanda: 1980–2005*. African Economic Research Consortium (AERC).
- Rutayisire, MJ. 2015. *Threshold effects in the relationship between inflation and economic growth: evidence from Rwanda*. African Economic Research Consortium (AERC).
- Sargent, T, and Wallace, N. 1981. Some Unpleasant Monetarist Arithmetic, *Federal* Reserve Bank Minneapolis Quarterly Review, 5, 1-17.
- The Commonwealth. 2016. *Key Principles of public sector reforms: Case studies and frameworks*. Commonwealth Secretariat.

- The Government of Rwanda. 2001. *Action programme for the development of Rwanda 2001-2010*, Brussels, Belgium.
- Vandeginste, S. 2014. Governing ethnicity after genocide: ethnic amnesia in Rwanda versus ethnic power-sharing in Burundi. *Journal of Eastern African Studies*, 8(2), 263-277. http://dx.doi.org/10.1080/17531055.2014.891784
- Vlček, J., Pranovich, M., Hitayezu, P., Mwenese, B. and Nyalihama, C., 2020. Quarterly Projection Model for the National Bank of Rwanda. https://doi.org/10.5089/9781513564630.001
- World Bank. 2022. *World Development Indicators (WDI)*. Washington: The World Bank Group. http://dx.doi.org/10.1596/978-1-4648-0484-7_world_development_indicators