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ABSTRACT

Ghana's inflation rate has risen significantly in recent years, causing substantial problems to the country's economy. The central bank has enacted restrictive monetary policies, including raising interest rates, to combat inflationary pressures. These initiatives, however, have had minimal success in stabilizing prices. Ghana's government is aggressively attempting to execute structural reforms and increase agricultural production to combat inflation and maintain long-term economic stability.

As a result, three main objectives were established for this research. The first objective was to investigate all the factors that have contributed to Ghana's rising inflation since 2020. The second objective was to explore the impact of these factors on the macroeconomy. Finally, the research sought to examine the efficacy of the government's existing monetary and fiscal policies in controlling inflation. Data from the Bank of Ghana and African Development Bank Annual Reports, recent economic journals focused on Ghana's inflation, and World Development Indicators (WDI) reports were used to perform the analysis. The fiscal theory of the price level was used as a primary framework for analysis and suggestions in the study.

According to the research findings, Ghana's inflation since 2020 is mainly caused by the nation's fiscal debt, the Russian-Ukraine war, the Covid-19 epidemic, and foreign inflationary pressures. These variables have had significant effects on several issues, including crude oil prices, living costs, currency rates, and the country's creditworthiness. These findings show the interdependence of these elements and their implications for Ghana's inflationary environment.

Despite the implementation of monetary policies such as interest rate rises and tightening monetary policies, the study's findings suggested that Ghana's inflation rate has not decreased much. Considering these findings, the report suggests that the government focuses on developing effective fiscal measures to manage inflation. The government can address the underlying causes of inflation and achieve more success in price stabilization by stressing fiscal policies such as careful fiscal management and targeted fiscal interventions.

Keywords: Inflation, International Monetary Fund, Debt Domestic exchange, Exchange rate

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LIST OF ABBREVIATIONS

AFDB -African Development Bank

ARDL -Autoregressive distributed lag

BOG -Bank of Ghana

DDEP -Domestic Debt Exchange program

DMB -Deposit Money Banks

DSA -Debt Sustainability Analysis

DSGE -Dynamic stochastic general equilibrium model

E.S.L.A. Plc -Energy Sector Levy Act

ECF -Extended Credit Facility

ECM -Error Correction Model

ERPT -Exchange Rate Pass-through Model

FTPL -Fiscal Theory of the Price Level

GARCH -Generalized Autoregressive Conditional Heteroscedasticity.

GBC -Government Intertemporal Budget Constraint

GSGDA -Ghana Shared Growth and Development Agenda

GSS -Ghana Statistical Service

HIPC -Heavily Indebted Poor Countries

IDR -Issuer Default Rating

IMF -International Monetary Fund

ISSER-Institute of Social, Statistical, and Economic Research

LTLC -Long-Term Local-Currency

MOF -Ministry of Finance

MPC -Monetary Policy Committee

MPR -Monetary Policy Rate (MPR)

MSRDM. -Markov-Switching Regime Dynamic Model

NCG -Net Claims on Government

NDA -Net Domestic Assets

NFA -Foreign Assets

OECD-Organization for Economic Cooperation and Development

OIN -Other Items Net

PVBC -Present Value Budget Constraint

UNDP -United Nations Development Program

VAR-Vector autoregressive models

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CHAPTER ONE
INTRODUCTION

1.1 Research Background

The International Monetary Fund defines inflation as “a sustained increase in the general price level, often measured by an index of consumer prices”(IMF, 2022). Similarly, Ceyda Oner (2010) of the IMF wrote that “the rate at which prices rise over a specific period is called inflation. Inflation is frequently measured broadly, such as the general rise in prices or the rise in the cost of living in a nation. For some products, like food, or some services, like a haircut, it can also be determined more precisely.” Regardless of the environment, inflation evaluates the amount more expensive a certain set of things or possible advantages has become during a specific time, usually a year.

According to Duodu et al. (2022), One of the most important factors to consider when choosing how much money to save, invest, and spend is inflation. Additionally, because it has an impact on budget allocation, inflation makes it impossible to carry out some significant programs or projects, which eventually slows down the growth of an economy. Most of the time, advanced economies make a conscious effort to keep inflation at a moderate level; frequently, a target rate of around 2% is used, according to McBride (2019), encouraging capital investment and consumption while discouraging savings (Pacific Investment Management Company, 2020). Inflation also boosts borrowing costs, lowers living standards, and increases the cost of living in an economy. Ghana's successive governments have tried to keep inflation at or below ten percent. However, the economy's fluctuating double-digit inflation rate has rendered these efforts ineffectual. The control of inflation dynamics is vital to the Government of Ghana's monetary and fiscal policy objectives. To lower living expenses, combat poverty, and maintain Ghana's macroeconomic stability, inflation must be under control.

Mensah (2022) stated that “Ghana formerly referred to by the World Bank as ‘Africa's shining star, had the fastest-growing economy in the world in 2019 after doubling its economic growth, which is not the same as today”. Ghana has battled continuous inflation dynamics throughout its history, including periods of instability and high inflation rates. From 1990 to 2018, the country has had a steady rise in inflation, coupled with macroeconomic instability. This insecurity was characterized by high levels of poverty, unemployment, trade imbalances, cedi currency devaluation, and high-interest rates. This instability can be attributable to both poor internal economic management and external shocks. The country, noted for its significant contributions to the cocoa and gold sectors, is currently experiencing a severe economic depression, its worst in many years. Inflation has risen to an all-time high of 50.3%, the highest level in more than two decades. The worst performances for exchange rate depreciation happened during 1993-2000 and from 2009-2016. The cedi depreciation reached a high of 32.5% in 2014 and declined to 9.7% by 2016. The rate of depreciation further declined to 4.7% in 2017 before increasing to 12.9% in 2019 and declining again to 3.9% in 2020 and registering at 4.1% in 2021." (African Development Bank, 2021).

"The African Development Bank reported that the outlook for the country remains positive, with projected GDP growth of 5.3% and 5.1% in 2022 and 2023 supported by the Ghana COVID-19 Alleviation and Revitalization of Enterprises Support Program. Potential inflationary pressure exists due to increased energy and food prices associated with the impact of Russia– Ukraine. Inflation is projected to surge to 15% in 2022 before falling to 9.1% in 2023. The Bank of Ghana is expected to adopt a tight monetary policy stance. The fiscal deficit is projected to narrow further to 12.8% of GDP in 2022 and to 10.3% in 2023, spurred by revenue-enhancing reforms. The current account deficit is projected to narrow to 1.6% of GDP in 2022 and 3.3% in 2023, on increased exports." (African Development Bank, 203).

1.2 Research Problem Statement

According to Tehran & Oskar (2020), Ghana has confronted several economic difficulties that have impacted economic expansion. Fiscal and monetary policies, changes in the price of oil, currency rates, and population growth have all influenced this. Despite economic restrictions, the Ghanaian economy has experienced several economic changes that have influenced its development aim. The government has made it a primary goal to implement measures that will lower the costs of living, raise standards of living, and lessen poverty among Ghanaian citizens. However, new challenges including currency depreciation and the high cost of living in the early 1990s contributed to an increase in poverty in Ghana. To address its high levels of poverty, Ghana turned to IMF-initiated economic recovery and reform measures. These programs attempted to diversify exports, rein in public spending, and privatize several state-owned businesses to reduce inflation.

Moreover, Ghana created the Ghana Shared Growth and Development Agenda, a short-to medium-term economic plan (GSGDA). The GSGDA was a framework for a policy that was put in place to accomplish economic growth and development using the already available resources, such as natural resources, the development of human capital, science, and technology to promote industrialization. Ghana agreed to join the Heavily Indebted Poor

Countries (HIPC) in 2002 to help the country's economy recover. To help the world's poorest and most indebted nations overcome the obstacles to economic growth and accelerate the decrease of poverty, HIPC was established. Together, all these initiatives enabled Ghana to achieve lower-middle income classification in 2010. Yet, a sizable portion of Ghanaians, roughly 56.9%, remain in high levels of poverty. High yearly inflation rates, which have continually grown above 2% since 1990 and as high as 9.8% as of 2018, contribute to the poverty situation in Ghana.

Since the cost of living has increased due to high levels of inflation, most Ghanaians are unable to afford essentials like food, good clothing, and a suitable place to live (Kaledzi, 2022). The ability of the government to regulate inflation may enhance purchasing power and lower costs of living, which will generally lead to an improvement in living circumstances. Hence, achieving low inflation aids in reducing poverty. Furthermore, to combat inflation in these recent times, efforts must be made to understand what causes inflation in Ghana, particularly by examining times when the inflation rate is on a high rise.

The Minister of Finance painted an image of Ghana as a nation that had made a turnaround from 2016 and was headed in the right direction to 2020 in the 2020 national budget statement and economic policy presentation in November 2019. The Finance Minister listed numerous successes since the government's 2016 election victory, including the economy's strong rebound and double-digit growth rates, the lowest inflation rate in 27 years, the banking sector's recovery, low borrowing costs, the government's ability to keep the fiscal deficit below 5% of GDP for three years running, and improvements to the trade deficit that have all contributed to the strength of the cedi and the economy. Even the Bank of Ghana and the World Bank appeared to concur with the finance minister over how well Ghana has fared and is progressing toward becoming an economic success in Sub-Saharan Africa in their economic and monetary reports and news releases.

However, six months into 2020, the same finance minister revealed a bleak and deteriorating state of the economy in a revised national budget statement and economic policy, contrary to all hopes of advancing economic transformation in line with the government's Consolidated Programme and Ghana Beyond Aid vision. The government has consistently said that the Covid-19 pandemic and the Ukraine-Russia conflict are the leading causes of the nation's current economic difficulties since 2020."

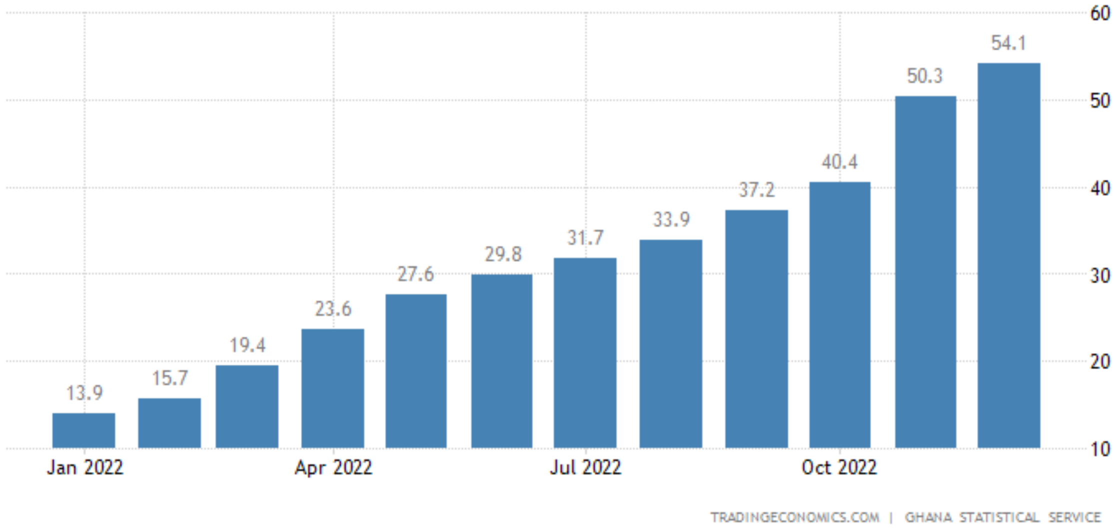
"As inflation surges, rising prices keep the cost of living high for Ghanaians. Ghana's Minister for Finance, Ken Ofori-Atta said when he addressed the nation provided details of Government plans to address the economic difficulties due to recent global and domestic events. The Minister revealed that the Cabinet deliberated extensively on several issues and approved measures to support current efforts to address the challenges Ghanaians were facing at its first regular quarterly retreat for 2022" (Ministry of Finance, 2022).

Some of the salient issues mentioned in the press briefing are as follows:

1. Ghana's difficulties are not unique. It is also worth noting that many governments, both developed and developing, are working hard to release several solutions to help their economies recover from the devastating effects of COVID-19, which disrupted global supply chains and the ongoing Russia-Ukraine war.
2. The new coronavirus pandemic and the Ukrainian crisis were two factors influencing world events, and Ghana's choice to prioritize safeguarding lives before livelihoods paid off.
3. After the destruction caused by the Coronavirus epidemic, Russia launched a war on Ukraine, disrupting the supply chain, increasing inflation, and creating uncertainty in the financial markets.
4. Despite having a long list of coronavirus-related costs to pay in 2020 and 2021, Ghana revealed plans and initiatives to enhance investor confidence and job opportunities for 2022 and beyond.

"In Accra, the capital, hundreds of people demonstrated against the rising cost of living. It was the most recent in a string of protests this year by people who are fed up with the escalating inflation, price increases, and dire economic conditions. According to the World Bank, nearly a quarter of the population in this country survives on less than US$ 2.15 per day, making it even more difficult for people to get by. Ghana is presently having difficulty managing its debt, 20-year high inflation, a weak currency, and rising inequality. The Ghana Statistics Service reported that the annual consumer inflation rate in Ghana increased to a new 21-year high of 50.3 percent in November, up from 40.4 percent the previous month, driven by utilities, food, and fuel. Cuts to government spending and multiple increases in interest rates by the central bank have so far been ineffective in curbing inflation." (Akorlie & Inveen, 2022)

Figure 1:Ghana's Rate of Inflation



***Source**: https://tradingeconomics.com/ghana/*

Figure 1 depicts the increase in Ghana's inflation rate from 13.9% to 54.1% in 2022. (Ghana Statistical Service, 2023).

According to a report by the Bank of Ghana, rising fuel, utility, and food prices are the causes of the 54.1% inflation rate in December 2022. The Bank of Ghana's Governor, Dr. Ernest Addison, has forecast a decline in inflation over the next few months. The situation will improve, the Governor of the Central Bank said during a meeting with the CEOs of State-Owned Agencies on February 10, 2023. "We anticipate a decrease in inflation. The news is good. The base figure effects should cause inflation to decline, barring larger shocks, which are extremely unlikely to occur in 2023. When inflation declines, the monetary policy rate will also alter (Bank of Ghana Staff Calculations, 2020).

Understanding the main factors of Ghana's inflation has become more crucial due to the rising rate of inflation. There is a need for further research since although there have been a few studies that have attempted to do that, they only used a few macroeconomic variables. Prior research conducted by Amaning & Seidu (2020), Kankpeyeng et al (2021), Akoto (2021), and Kamasa (2022) provided detailed explanations of the factors that contribute to inflation. They contend that factors such as the money supply, economic expansion, currency depreciation, and others are what cause inflation. Although there were certain levels of dispute, they found a favorable correlation between several macroeconomic factors and inflation. Such inconsistencies demonstrate the lack of agreement on the causes of the relationship between inflation and other economic factors. Thus, each economy needs to be examined uniquely to understand the factors that influence inflation in economies.

This study will examine the accuracy of the government's official explanations for the global economic turmoil that has resulted in this phenomenon of high inflation rates and downturns. These explanations claim that the COVID-19 pandemic, Russia's invasion of Ukraine, investors withdrawing money from developing economies to invest in bonds in the developed world, depreciating currencies, and higher borrowing costs have all combined caused. The study will further examine the effects of inflation on the economy and some policies implemented by the Government to curb the turmoil.

1.3 Research Purpose

This research presents an empirical study on the high rise of Ghana's inflation since 2020 and beyond. The study will examine the various causes enlisted by the Government as well as the effects on the country. The study will seek to probe into the best monetary policies that can be implemented to stabilize the economy amid the financial crisis.

1.4 Research Objectives

i. To identify the main causes of Ghana's Spiral inflation since 2020
ii. To identify the effects of Ghana's spiral inflation since 2020
iii. To examine specifics of the Government of Ghana's initiatives to deal with the issues arising from the economic crisis.

1.5 Research Questions

i. What are the main causes of Ghana's Spiral inflation since 2020?
ii. What are the effects of Ghana's Spiral inflation since 2020?
iii. What are the specifics of the Government of Ghana's initiatives to deal with the issues arising from the economic crisis?

1.6 Research Significance

This paper is going to give a thorough breakdown of the main causes and effects of Ghana's spiral inflation over the past few years as well as find some loopholes in the current monetary and fiscal policies. This study will also contribute to knowledge and extant literature by way of validating existing studies on inflation in the Ghanaian context as well as provide evidence of contrast and recommendation. This will help make investment decisions as well as monetary and fiscal policies. This study would be shared with the management of the Bank of Ghana, the Institute of Social, Statistical, and Economic Research (ISSER), the Ministry of Finance, and the African Development Bank.

1.7 Research Limitations

There could be several constraints that will in one way or another other affect the outcome of this study. Measures will be put in place to ensure these limitations' effects will be minimal. A major limitation of this study will be the availability of accurate and timely data for this study.

1.8 Chapter Disposition

Chapter One: Introduction

The first chapter discusses the study's background, the research problem statement, the purpose, and the research objectives. The significance, research questions, limitations and definition of concepts, and organization of the entire research report were also presented in this chapter.

Chapter Two: Literature Review

In this chapter, several papers done by other researchers will be reviewed to identify the theories and concepts backing the proposed topic. Also, various reports and memorandums will be critiqued and analyzed in this chapter. Other industrial information will be utilized to expand the scope of the study. Chapter two presents' definitions and explanations of keywords such as national debt, domestic debt exchange, inflation, and gross domestic product (GDP).

Chapter Three: Methodology

Chapter three presents the methodological framework adopted for this research. It consists of the study area and research design. It also outlines the instruments for data collection, data collection procedures, validity, reliability measures, and data analysis techniques, and the conclusion of the chapter will also be presented.

Chapter Four: Discussion of Findings

This is where the data collected will be analyzed and presented for further analysis and criticism. Also, this chapter focuses on the empirical results of the analyzed data. The findings from the study will be made known during this phase of the research. The fourth chapter also discusses the interpretation of results and contributions from the analyzed data. It summarises the main findings of the research, discusses them, offers recommendations for improvements to the situation, further studies on it, and looks at the strengths and weaknesses of the study. Conclusions will be drawn under this chapter and any scope for further research will be made known.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Many theories on the dynamics of inflation have emerged in the field of monetary economics. To grasp the breadth of this study, past studies and articles must be studied and critiqued to appreciate the issues that Ghana is facing because of its high inflation rate. This section provides a brief review of numerous ideas related to inflation to be discussed.

2.1.1 Economic Crisis in Ghana

Since January 2022, Ghana has been experiencing a severe economic crisis brought on by runaway inflation, which has driven up the cost of basic goods. The government's finances are at their lowest point, there is a lack of fiscal restraint, unchecked borrowing is causing debt distress, and excessive spending is occurring despite low and declining tax revenues. Due to its high reliance on foreign financing, the government has consistently failed to prepare the economy to withstand both internal and external shocks. (Boafo, 2022).

2.1.2 Demand and Supply Shocks during the COVID-19 Pandemic Outbreak

Georgieva et al. (2022) discovered that when governments imposed tighter measures to prevent COVID-19, consumers altered their spending habits by lowering service expenditures and boosting purchases of manufactured items. While the reopening of economies initially increased industrial production, factory recovery was hampered by later lockdowns and shortages of intermediate inputs like chemicals and microchips. Despite severe disruptions in economic and social activity during the peak of the COVID-19 epidemic, the maritime sector remained functioning due to its need. However, substantial disruptions to the global supply chain occurred, including an extraordinary backlog of goods, crowded ports, issues with personnel changes, and other factors that threatened to collapse the whole supply chain. COVID-19 has had serious economic effects in Ghana, impacting both production limits (supply side) and reduced expenditure (demand side).

In the months after the outbreak of the pandemic in Ghana, demand shocks and interruptions in supply chains exacerbated volatility in import, export, producer, and consumer prices. Because Ghana's market-based economy is strongly reliant on foreign trade and imports, any disruptions in global commerce and supply chains have a considerable influence on its overall economic performance. While the country faces rising debt and hefty costs because of the epidemic, the drop in commerce and reserves exacerbates the problem by cutting tax revenues and generating an increase in unemployment. Given Ghana's open economy, global economic changes represent a particularly significant threat to the country's stability and prosperity. (Olena et al., 2022).

Dr. Ernest Addison, Governor of the Bank of Ghana, pointed out the economic consequences of the Covid-19 outbreak during a lecture at the University of Ghana Alumni Lecture. Within the domestic sector, these ramifications appeared as both demand and supply shocks. On the supply side, the virus disrupted productive activity as personnel were ill, causing delays. Furthermore, global supply networks were affected, resulting in a scarcity of raw materials and industrial inputs. As a result of the adoption of new health and safety regulations, manufacturing expenses increased. Consumer demand was impacted on the demand side because of firm closures and significant job losses. As a result, significant corporations had difficulty meeting their responsibilities, such as compensating employees, paying suppliers, settling electricity bills, and repaying financial institution loans. Furthermore, Covid-19 had an external shock impact on the economy, leading commerce to contract, commodity prices to fall, tourism to drop, and foreign capital flows to decrease.

The entire impact of the epidemic became obvious by the second quarter of the year, when domestic economic activity slowed, threatening livelihoods, and undermining the economic and financial stability gained in the preceding three years (Addison, 2020). Dr. Addison went on to say that these changes had a substantial impact on government finances because of large income deficits caused by sluggish local economic activity and a steep drop in international crude oil prices. Furthermore, Covid-related spending resulted in higher government spending. The extensive informal sector, which usually acts as a buffer against economic shocks like the Covid-19 outbreak, worsened the impact this time. The lockdowns halted informal activity, exacerbating the negative impact on the economy.

2.1.3 Russia-Ukraine War

The ongoing conflict in Ukraine and the sanctions placed on Russia have contributed significantly to the recent sharp spike in the price of food, fuel, and fertilizer across the globe. Almost a quarter of the world's trade in wheat and nearly a fifth of the world's commerce in corn are accounted for by Russia and Ukraine. (European Commission, 2022). An article published by Nyagudi and Siton (2022) indicated that the ongoing Russian invasion of Ukraine continues to have far-reaching repercussions on global supply lines, causing severe disruptions. One prominent effect is the global rise in the pricing of key goods such as petrol and food. This is because Russia and Ukraine account for almost one-third of global wheat exports. The conflict has caused food shortages, which has led to rising food insecurity as food prices have skyrocketed. Poor countries that are already struggling with other issues, such as the effects of climate change, are particularly sensitive to these implications.

According to Arce (2023), the war had a significant impact on the world economy. This shock largely impacted the energy and food sectors, resulting in shortages and extraordinarily high prices. The conflict exacerbated already-existing inflationary pressures in the eurozone during the post-pandemic economic recovery, resulting in considerable increases in consumer prices, particularly for food and energy. Inflation jumped from 0.3% in 2020 to 2.6% in 2021 and 8.4% in 2022. In terms of inflation, energy costs surpassed food inflation as the key driver in 2022, exceeding the previous pattern. Food prices increased by 14.1% in January 2023 compared to the same month the previous year. This significant food inflation can be traced in part to the indirect and delayed consequences of skyrocketing energy prices, which were heavily impacted by the conflict. It is worth mentioning that food production is particularly energy-intensive, underlining the impact of rising energy costs on food inflation.

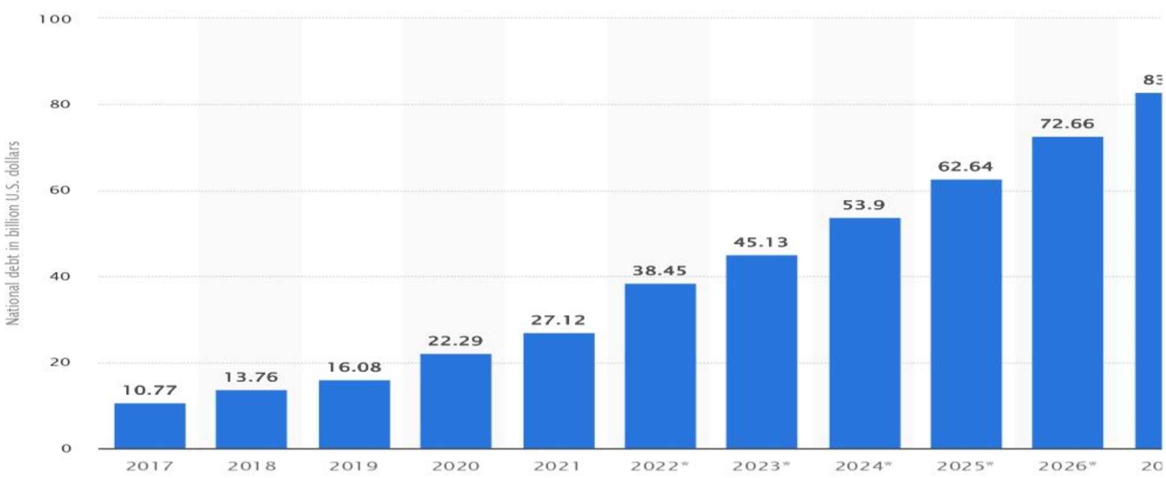
The war in Ukraine has increased the price of food and energy globally, which has contributed to Ghana's severe economic situation and raging inflation. Due to the war's impact on world economies and exposure to basic flaws, prices for goods and services in Ghana skyrocketed within a short period, resulting in hyperinflation. The nation's cost of living has grown dramatically because of rapidly rising fuel, utility, and food prices. Ex-pump fuel prices increase immediately, having an impact on nearly everything in the nation, particularly transportation. In December 2022, the inflation rate jumped to 54.1%, which was the highest level in 22 years (Africa News, 2022).

2.1.4 Unsustainable National Debt

Kaledzi, (2022) noted that while admitting that the economy of Ghana is in terrible difficulties, the administration will not take responsibility for the poor handling of the nation's money. Instead, it focuses on the Covid-19 epidemic and Russia's invasion of Ukraine as the main culprits. According to 2021 Bank of Ghana estimates, the national debt of the nation was $45.5 billion, representing a debt-to-GDP ratio of more than 77%, even before the Covid-19 pandemic struck Ghana and Russia attacked Ukraine. According to some economists, the debt-to-GDP ratio has already risen above the 81% threshold. The Ghanaian government has also come under fire for amassing debt at a time when income mobilization was in trouble. The government has no choice but to turn to the IMF to restore fiscal discipline because of the high spending relative to the declining levels of revenue.

Ghana's total public debt as of June 2022 was GHS 393 billion (US$ 54.4 billion), or 78.3% of GDP, compared to GHS 143 billion (US$32.3 billion), or 55.5% of GDP in 2017. The overall stock of government debt has increased to GH575.7 billion at the end of November 2022. The upgraded debt levels boosted Ghana's debt-to-GDP ratio from 75.9% in September 2022 to 93.5% as of currently. Ghana's national debt is expected to grow steadily between 2022 and 2027, totaling US$44.6 billion (+115.99%). In 2027, the expected value of the national debt is $83.02 (Savage, 2022). According to the IMF, a country's public debt is considered sustainable if the government can make all its current and future obligations without requiring major financial assistance or defaulting. After conducting a debt sustainability analysis, the Ministry of Finance concluded that the nation's debt was too large for it to carry. The Ministry stated that the "Government's Debt Sustainability Analysis (DSA) has revealed that our public debt, both external and domestic, is unsustainable" in a statement issued in December 2022. In a similar spirit, the Ministry of Finance has put a moratorium on all debt service payments for several of our external debt categories while the relevant debt is being properly restructured (Hakura, 2020).

Figure 2: Ghana's National Debt



Source: *https://www.statista.com/statistics/531591/national-debt-of-ghana/*

"Ghana's debt-to-GDP ratio is predicted to be 90.7% by the end of 2022 by the International Monetary Fund (IMF) as shown in the figure above. At the end of 2022, revenue as a percentage of GDP might also reach 14.1%, according to the IMF. According to the reports, by the time the government declared effective sovereign bankruptcy in 2022, debt service accounted for approximately 70% of all domestic tax revenues, with a staggering 75% of that amount going to domestic creditors.” (IMF, 2022).

2.1.5 Coronavirus Pandemic and Lockdown

As a result of the widespread COVID-19, the Ghanaian government was forced to enact certain policy measures that they would never have done such as a lockdown. Due to the Coronavirus (COVID-19) outbreak, strict limitations and procedures were required as a containment measure aimed at limiting the virus's propagation. These safeguards were put in place to prevent the virus from spreading further and to protect human health and safety. Ghana's President, Nana Akufo-Addo, announced a partial lockdown on the two largest cities' surrounding areas, measures were taken in the Greater Accra Metropolitan area and the Greater Kumasi Metropolitan area beginning in March 2020. (Communications Bureau, 2022). The partial lockdown was later extended to all parts of the country leading to a nine-month closure of factories and businesses, schools and public spaces, restrictions on public gatherings, and rotational work practices.

The partial lockdown had a profound impact, bringing an abrupt halt in economic activity. Numerous companies were forced to close, and even those that were not immediately affected by the lockdown saw a drop in customers and orders. Furthermore, enterprises struggled to adjust for income shortfalls due to difficulties getting key inputs. The partial lockdown had far-reaching repercussions for the economy, including economic activity, household income, government revenues, and employment. Companies were forced to cut their employment or lower pay and compensation. The coronavirus's negative consequences were most visible in the cost of goods and services, indicating a major influence. Families stocked up on commodities in Accra and Kumasi's downtown areas because of the lockdown announcement, which resulted in a significant increase in title growth from 7.8% in the spring to 10.6% in April and then up to 11.3% in May 2020 to a significant spike in food costs. (Addison, 2020).

According to Sasu (2022), Ghana had experienced some economic effects of the coronavirus (COVID-19) pandemic as of April 2020. Revenue was also negatively impacted, with a shortfall of GHS 2.3 billion (US$ 395 million) in non-oil tax collection and GHS 808 million (US$ 138 million) in import duties. Bondzie et al. (2021) showed that unemployment was predicted to fall by 4.65% by the end of 2020, along with a decline in demand for goods and services, private spending, and the debt-to-GDP ratio rising to 72.34%. Due to decreasing mining production and the effects of COVID-19 regulations, growth slowed from 6.5% in 2019 to 0.4% in 2020, translating to a 1.7% decline in income per capita. During the partial lockdown, poverty rose, and half of all households cut back on their food purchases. Inflation increased to double digits (11.3%) in May 2020 from a constant rate of 7.8% from January to March 2020 because of rising food costs brought on by Ghana's partial shutdown. Food costs are high due to the ongoing inflation rate. For instance, in March 2020, the price of food and non-alcoholic beverages increased by 14.4% from 8.4% to 14.4%, with vegetables rising by 37% and fruits and nuts by 20.5%. Food costs increased by 15.1% in April 2020, primarily in places subject to the partial lockdown. Overall, food costs increased around 20-33% during the temporary shutdown. (IMF, 2021).

2.1.6 Domestic Debt Exchange

Ghana's Domestic Debt Exchange (DDE) program was launched in December 2022, following the Executive Board and management of the IMF's approval of the Extended Credit Facility. The government, through the Ministry of Finance, launched a debt exchange program to adjust the interest rate to be paid to bondholders as well as the time for which the lender expects the interest and principal to be paid. The program is especially pertinent considering Ghana's economic issues, which include rising inflation and interest rates, a weakening cedi, and frequent credit rating downgrades because of the country's poor economic status. The government has set deadlines for domestic bondholders to sign up for the DDE program to adjust the interest rate it agreed upon with the bondholder and the period for which the lender is slated to receive their interest and principal back. Several bondholders have, however, rejected the proposal. In February 2023, Ghana's Domestic Debt Exchange program came to an end with more than 80% of eligible bonds participating, yielding an 84.91% success rate. Under criticism and strike threats, the government decided to include individual bondholders and remove pension funds from the scheme, which had previously excluded Treasury Bills and bonds held by private citizens. The nation was getting closer to obtaining a $3 billion (2.8 billion euro) rescue from the International Monetary Fund by addressing internal debt (IMF, 2022b).

2.1.7 Eurobonds

A fixed-income debt security known as a Eurobond is issued in a nation that uses a currency other than its own as its local unit of account. A Eurobond is a euro-dollar bond if its currency is US dollars. It would be referred to as a euro-yuan bond if it were pegged to the Chinese yuan. (Trinidad, 2022). Ghana issues most of its euro bonds in dollars and Euros. Borrowing for Eurobonds is issued commercially. Interest rates, bond terms, and coupon payments are all affected by market conditions. Due to poor credit ratings and significant risk, African bonds are classified as high yield. Despite being risky, they have high yields. Governments must pay high-interest rates due to the large yields that investors want. However, governments find them appealing since investors acquire them with no strings attached. Governments can utilize the funds any way they see fit, unlike international concessional loans that contain restrictions on policy adjustments. (UNDP,2017).

In 2007, Ghana released its first 10-year Eurobond. Ghana became the first sub-Saharan African country to borrow from foreign capital markets with this offering, which raised US$750 million from investors at an 8.5 % rate. In March 2013, when the yearly Budget Statements were presented, the Minister of Finance announced a debt strategy that involves supporting the capital component of the yearly budget with longer-term bonds, preferably from the global capital market. Additionally, he made mention of a policy to self-finance capital projects by issuing bonds and contract loans. These actions will reduce the strain on the domestic market's short end and prevent the private sector from being overcrowded.

Additionally, Ghana can diversify its funding options by entering the international capital market, especially when concessional resources become scarce owing to the country's achievement of middle-income status. Furthermore, borrowing from the foreign capital market has the benefit of quick execution, as opposed to the long timescales involved with securing concessional borrowing. This allows Ghana to efficiently diversify its funding sources. (Asiedu, 2017). Ghana used US$250 million of the $1 billion Eurobond it issued as well as US$100 million and US$216 million of the 2016 Bond proceeds to supplement the retirement of a portion of the 2007 issue in 2013. As foreign investors continued to sell Ghana's bonds due to the country's fiscal and debt problems, yields on its Eurobonds increased to their highest point in ten years. The Ministry of Finance decided to halt servicing payments on its Eurobonds, business loans, and most bilateral loans, describing the action as an "interim emergency measure. “Following a decision by a panel of investors and banks that Ghana's missed coupon payments on its foreign-denominated bonds qualify as a failure-to-pay event, the default-insurance contracts linked to the country's debt can now be paid out” (Asiedu, 2017).

2.1.8 Foreign/External Debt Restructuring

64% of Ghana's scheduled foreign currency external debt service is due to private lenders between 2023 and 2029; 20% is due to multilateral organizations; 6% is due to other governments; and $13 billion in Eurobonds is held by significant asset management companies. The government declared in 2022 that all debt service payments, except for those for Eurobonds, commercial term loans, and most bilateral debts, would be suspended. Ghana applied to the "Common Framework" platform in January 2023, becoming the fourth African nation to do so to facilitate debt restructuring for Covid-19-affected developing nations. As of December 2022, Ghana owes $1.9 billion (1.77 billion euros) to Paris Club members as part of its external debt of US$ 28.4 billion (26.39 billion euros). This high level of debt serves as a warning. This high level of debt serves as a caution to other African nations considering the Eurobond and Commercial Debt routes to finance development without the necessary structures for policy and law. Getting private lenders to accept a sizable debt cancellation is the main difficulty in managing Ghana's debt restructuring. (Singh, 2023b).

2.1.9 Downgrade of Ghana

The government was able to cut its borrowing on the domestic market during the second quarter of 2021 due to the US$3 billion proceeds from the four-tranche Eurobond issue in March 2021. However, a strong sell-off of Ghana's Eurobonds in October 2021 prevented the government from obtaining external commercial finance. This increased the government's reliance on domestic borrowing beyond what was anticipated for the final quarter of 2021 and the beginning of 2022. “Major credit rating organizations including Standard & Poor, Moody's, and Fitch reduced Ghana's credit rating due to worries about macroeconomic instability, which exacerbated the government's problems with liquidity and debt sustainability and raised the danger of default. Ghana's long-term issuer and senior unsecured debt ratings were once again reduced by Moody's in September 2022, from Caa1 to Caa2, and the ratings were put on review for a future downgrade.” (Adu, 2023b).

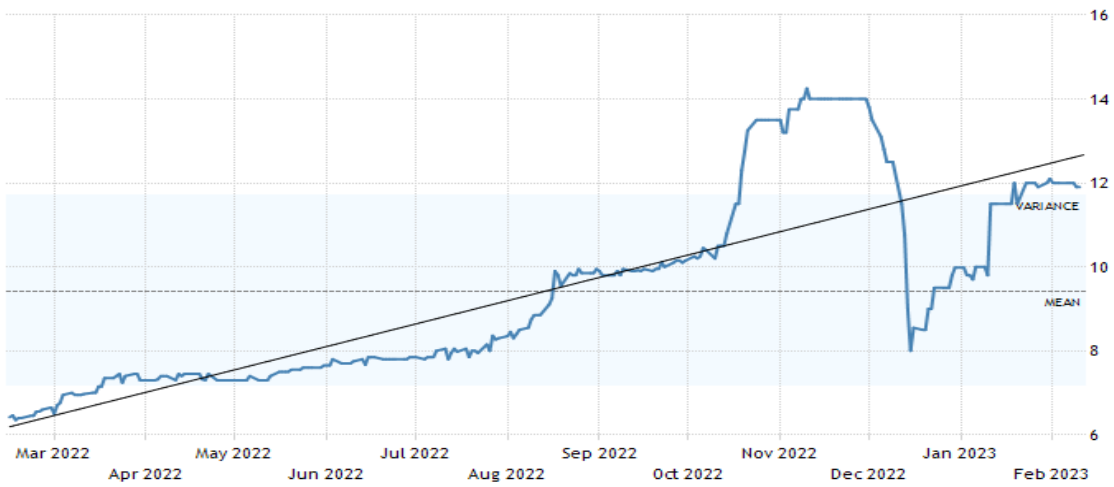
Despite Ghana's enactment of tighter monetary policy in reaction to the global price shock, inflation has remained excessive, and the currency has been under a lot of pressure. Without external intervention, the government has very few policy options to stop a deteriorating macroeconomic environment and rising debt levels. Ghana's government issued an Exchange Memorandum on December 5, 2022, inviting eligible domestic debt holders to exchange their current bonds for new ones. Fitch Ratings has downgraded Ghana's Long-Term Local-Currency (LTLC) Issuer Default Rating (IDR) from "CC" to "C." and issue ratings on locally issued local-currency bonds were similarly lowered. Ghana's Foreign-Currency IDR has been confirmed by Fitch as "CC." (MOODY'S, 2022)

Further resulting from the downgrades by rating agencies, Ghana's access to the Eurobond market was hampered. Restructuring domestic and/or external debt became a requirement for getting financial support from the International Monetary Fund, and Ghana was shut out of the international financial markets for an extended period (IMF). (Africa News, 2022b).

2.1.10 Currency Depreciation

Ghana initiated reforms in the early 1980s to establish an inter-bank foreign exchange market and a retail foreign exchange bureaux market. This has led to instability and depreciation versus the main international currencies, notably the dollar. The Bank of Ghana reported that the cedi had reached GHS 7 to US Dollar, which was the worst performance among 148 currencies tracked by Bloomberg. The President of Ghana, Nana Addo Dankwa Akufo-Addo, indicated that the Cedi's devaluation was driven by low inflows of foreign money and speculators, as well as the Black Mark. Historically, the Ghanaian Cedi reached an all-time high of 14.25 in November 2022.

Figure 3:Cedi Depreciation



***Source**: https://tradingeconomics.com/ghana/currency*

Graphic Business examined the Bank of Ghana's Summary of Economic and Financial Data and reported that the cedi traded at GHS 10.60 to one US dollar on the interbank market in January 2023, up from GHS 8.57 in December 2022. In January 2023, the value of the local currency for the pound and the euro fell by 21.4% and 20.7%, respectively. By continuing its downward path, the cedi will fall to second place among the top 15 currencies in Sub-Saharan Africa in January 2023 because of this depreciation. It's still there as of right now. (Adu, 2023).

2.2 Variables Under Study

Inflation, crude oil prices, exchange rate volatility, government spending expenditure, and money supply are the major issues under consideration in this study.

2.2.1 Inflation

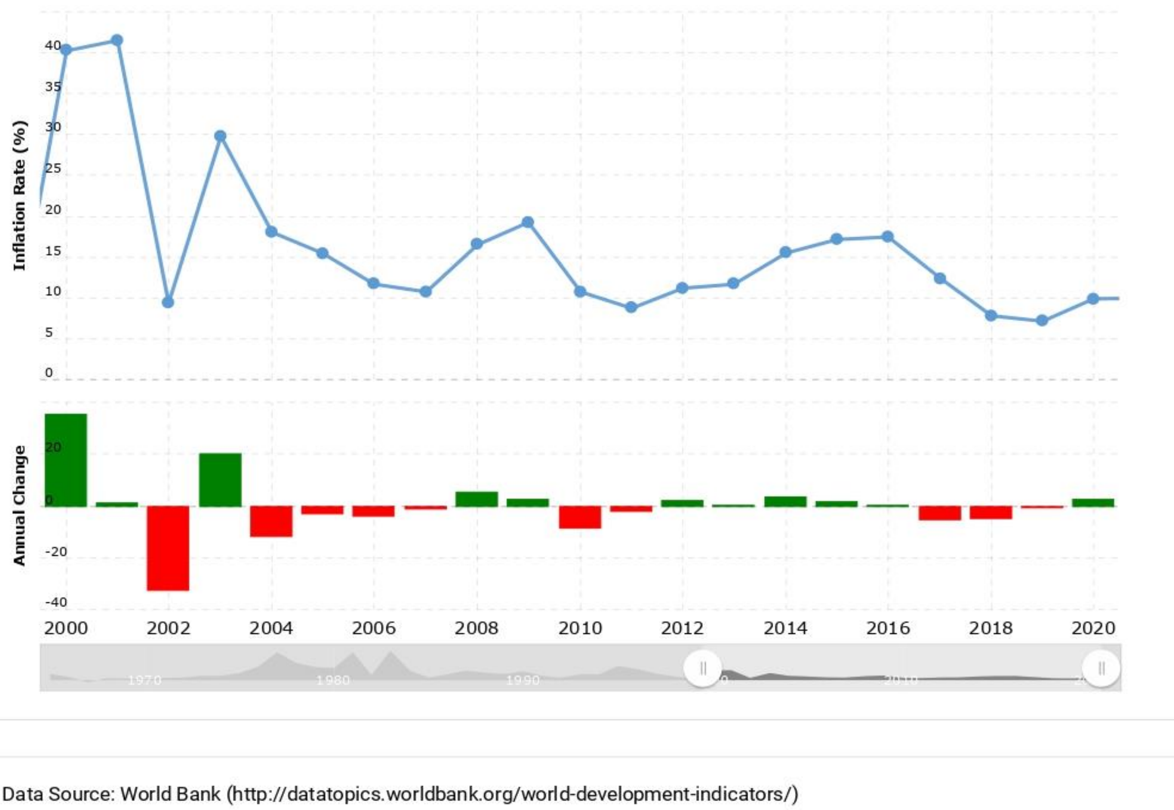
The Bank of Ghana set the inflation target for the year at 8 +/- 2 %, indicating that it was optimistic about the future of the Ghanaian economy. In April 2022, the nation's inflation rate changed dramatically, increasing by 4.2 percentage points from 19.4 % in the previous month to 23.6 % In May and June, the rate was 27.6 %and 29.8 %, respectively. Out of the 13 categories used to calculate inflation; food, transportation, housing, water, gas, and electricity were the key drivers of inflation during these months, with most of these categories having inflation rates higher than the national average. In July, inflation continued to rise, which could have an impact on the nation's economy due to its reliance on imports (OECD, 2022).

The major causes of inflation in Ghana can be analyzed in two scenarios: the period before and after 2020.

2.2.1.1 Inflation in Ghana at the End of 2019

Abradu-Otoo and Jagre Walley (2019) found that 40% of Ghana's real GDP growth and 30% of its inflation were caused by external influences. Predictions of a slowdown in the world's two largest economies, China, and the US, indicate that these shocks will stifle Ghana's GDP growth, cause a major deterioration in the exchange rate, and raise domestic inflation rates. Other studies have identified three important factors of inflation in Ghana: Crude Oil Price on the World Market, Exchange Rate, and Excessive Government Spending (Budget Deficit).

Figure 4: Yearly Variation in Inflation



***Source**: https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG*

Inflation had decreased from 40.24% in December 2000 to 7.14% in December 2019 but had reached 15% by the time the Minister of Finance delivered the Mid-Year Budget Statement. (Ministry of Finance, 2020). Figure 2.2 indicates that there has been a yearly change of between +/-20 percentage points over the previous 20 years.

2.2.1.2 Inflation in Ghana from 2020 Onwards

In addition to the above drivers of inflation in Ghana before 2020, the country's rate of inflation has been worsened by the Coronavirus Pandemic and Lockdown, Demand and Supply Shocks, Russia-Ukraine War, and Money Supply.

The inflation in December 2019 was 9.89%, 10.4% in December 2020, and 12.6% in December 2021 but increased significantly to 54.1% in December 2022. The inflation rate eased slightly to 53.6% in January 2023 which marked the first month of declining inflation since May 2021, but remains well above the top of the central bank's target band of 6%-10% as shown in **Figure 1.1.**

2.2.2 Crude Oil Price

A study by Cantah (2015) showed that the Ghanaian economy has grown heavily reliant on crude oil, which has had a significant beneficial impact on inflation. A one-unit rise in crude oil prices is expected to result in inflationary pressures of around 0.422 units in Ghana. As crude oil prices rise, so do energy and transportation costs, resulting in higher prices for consumers, especially food items. (Adom et al., 2015). The Bank of Ghana Annual Report indicated that since 2004, there was a noteworthy surge in headline inflation on a worldwide scale, which was mostly linked to rising crude oil prices. Looking ahead to 2005, the Bank of Ghana voiced concern about the possibility of oil prices rising further, leading to the accumulation of inflationary pressures. This position provides a difficulty for central banks as they seek to develop stable economic policy because increased oil prices not only cause inflation but also inhibit economic growth. The study also stated that the country's trade profits were reduced because of the country's continued high oil costs. It is worth mentioning, however, that Ghana's economy saw its fastest growth rate in twenty years, supported by a notable fall in inflation during that time (Bank of Ghana,2004).

2.2.3 Exchange Rate Volatility

About other major currencies, the Ghana cedi exchange rate has been shifting more often. The average exchange rate between 1990 and 2001 was 0.20, with a minimum of 0.03 and a top of 0.72. The lowest and highest rates increased to 0.79 and 4.59, respectively, while between 2000 and 2018, the average rate rose to $1.99 (Darko-Owusu, 2020). According to the Bank of Ghana (2014), episodes of exchange rate instability are followed by periods of significant inflationary pressure, while periods of exchange rate stability are followed by periods of deflation. Since there is a positive relationship between inflation and the exchange rate, when the local currency appreciates against the US dollar, prices in Ghana will generally rise as well. The health of the economy is impacted by this, especially in Ghana where import dependence is significant. (Nortey et al. 2015).

2.2.4 Excessive Government Expenditure (Budget Deficit)

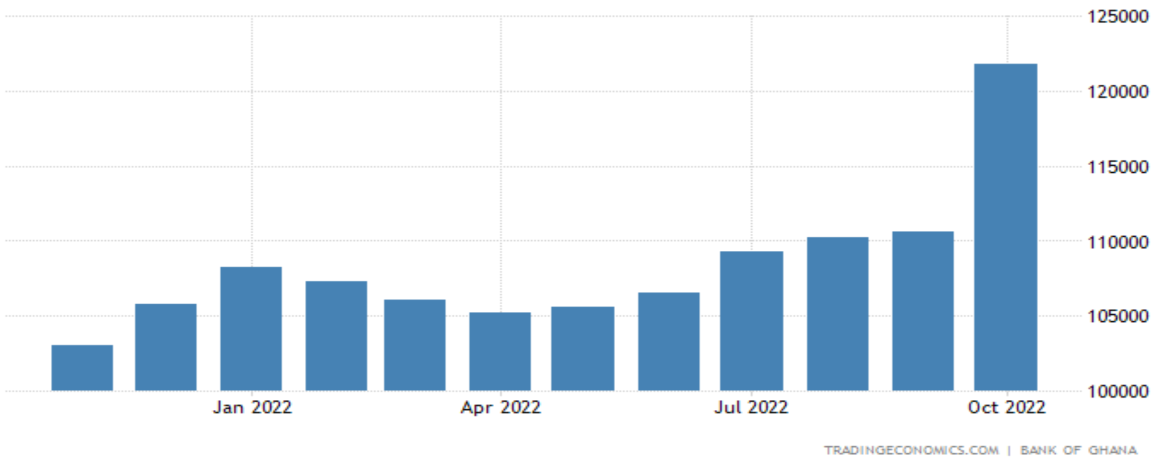
Ghana's economic development initiatives have placed a strong emphasis on public investment and spending. However, this strategy has resulted in excessive inflation, negative real interest rates, an overvalued currency, and the formation of illegal markets. Asiama et al. (2014) noted that despite the administration's determination to pursue fiscal consolidation, there has been a rise in the government debt-to-GDP ratio since 2006. The introduction of the single-spine salary structure has increased the cost of wages in the public sector while also reducing efforts to generate revenue, aggravating fiscal slippages, and causing a rapid increase in government debt. According to Obeng & Daniel (2017), growing expenditure may be economically damaging since it disincentivizes work, investment, and demand. It may also result in rising indebtedness, devaluation of the currency and depletion of foreign reserves, inflation, interest rate rises, and crowding out.

2.2.5 Money Supply

According to Akoto (2021), Ghana's budget deficit has become an annual occurrence due to the country's failure to earn enough money to cover its bills. The researcher was driven by this circumstance to evaluate its impact on the economy, and analysis from the research shows a negative correlation between Ghana's budget deficit financing and economic growth. This shows that deficit financing throughout the research period harmed Ghana's economic growth. The study also found that financing for the budget deficit rose during Ghana's political election years, implying that politicians' excessively ambitious objectives are a contributing factor to the country's budget deficits. Following the increasing demands to finance part of the government's COVID-19 activities despite the challenging global financial conditions, the Bank of Ghana's financing of the budget deficit has deteriorated since 2020, as indicated by a ratio of net claims on the government to the previous year's tax receipts. Before the COVID-19 epidemic, the public debt-to-GDP ratio was steady, but it rapidly increased in 2020 and 2021, increasing by 4.2% and 5.5 %points of GDP, respectively, because of increased borrowing to close the funding gaps brought on by the pandemic. K. O. Atta (2022).

Money supply changes during the first quarter of 2020 reveal that growth typically slowed, reflecting the overall economic unpredictability, lower credit demand, and commercial banks' tightening of their credit policies. However, the broad money supply (M2) increased by 25.8% in April 2021 as opposed to 16.8% in the same month in 2020. The net domestic assets of the banking sector were a major contributor to the faster M2 rise. In October 2022, Ghana's money supply (M2) reached a record high of GHS 121.791 billion (Bank of Ghana, 2020).

Figure 5: 2022 Money Supply(M2)



Source: *https://tradingeconomics.com/ghana/money-supply*

As reported by Amlanu (2023), The Bank of Ghana defended its actions in February 2023 in response to public criticism of what is perceived as an excessive level of government borrowing, which stood at GHS 44.5 billion at the end of December 2022. The bank stated that the financing of the budget deficit was necessary to prevent the economy from coming to a standstill so, as the country found itself in a precarious financial situation that required such measures.

2.3 Empirical Literature Review

This section allows one to gain essential information by looking into prior studies and research on a given topic. This information serves as a basis for undertaking more research, guided by previous works and concepts, to provide fresh insights into the subject of study. The purpose of this section is to evaluate prior publications related to Ghana's inflation, therefore expanding on the current body of knowledge in this field.

Sek et al. (2015) studied the impact of oil price changes on inflation in two separate categories of nations depending on their dependency on oil in their empirical study. They contrasted the impact of changes in oil prices to other shocks such as the real exchange rate, domestic output, and the production costs of exporters. They used an autoregressive distributed lag (ARDL) methodology to investigate the pass-through equation and the pooled mean group method to estimate the model. The investigation began with the idea of the exchange rate pass-through model (ERPT), which investigates the impact of changes in oil prices on domestic consumer pricing. The ERPT equation was modified to include the oil price variable to analyze the effects of oil price variations on domestic inflation and pricing changes. The oil price pass-through rate quantified the amount to which changes in domestic consumer prices was impacted by changes in oil prices. The study's findings suggested that fluctuations in oil prices had a direct influence on domestic inflation in nations with little oil dependency. However, in oil-dependent nations, the impact on domestic inflation was indirect, driven mostly by increases in exporters' production costs. Domestic inflation is determined by several factors, including the real exchange rate, exporter manufacturing costs, and domestic output. Policymakers should alter monetary policy to offset the effects of these shocks and guarantee stability, according to the study.

Akoto (2021a) studied that many emerging nations, notably in Sub-Saharan Africa, have suffered from high-interest rates and inflation rates. The researcher wanted to know how these two variables interacted and what impact they had on Ghana's economic growth over the previous fourteen years. The period's variations in interest rates and inflation rates were contrasted. The correlation coefficient between these variables was calculated using these numbers. To determine if there was a correlation between these two factors and the economic growth rate throughout the time, the changes in these two variables were also compared with those changes. The study revealed a high correlation between Ghana's interest rates and inflation rates, which had a major impact on the country's economic growth. However, the researcher found that from 2006 to 2015, there was a higher association between interest rates and inflation rates than between 2016 and 2019.

Kankpeyeng et al. (2021) focused on how Ghana's GDP growth was impacted by Inflation and other macroeconomic factors such as physical capital, government expenditure, and money supply. The research was carried out using vector autoregressive (VAR) models using data from the World Development Indicators for the years 1986 to 2018. The analysis found that for the period under consideration, government expenditure and high inflation had no statistically significant influence on GDP growth, but general inflation, low inflation rates, physical capital, and money supply had a statistically significant impact on GDP growth. The study also indicated that GDP in Ghana rises unfavorably at high rates of inflation but positively at general levels of inflation and low rates of inflation.

Amaning and Seidu's (2020) study aimed at investigating the effects of monetary policy and the causes of inflation in Ghana. The investigation used annual time series data from 1985 to 2017 using an ARDL (Auto Regressive Distributed Lagged) model. The study's findings indicated that the relationship between the monetary policy rate and inflation, both in the short and long terms, was negligible. Again, for a particular period chosen for the study, it was discovered that the interest rate, domestic investment, and money supply had a strong beneficial impact on inflation in both the long and short runs. To maintain stable retail price levels, the study advised policymakers to carefully analyze Ghana's levels of the money supply. The interest rates on the 91-day Treasury bills, which are primarily regarded as risk-free rates and thus determine other interest rates and inflation levels in Ghana, must be evaluated by the government of Ghana along with the current retail price levels.

Gyebi's (2013) study's objective was to pinpoint the macroeconomic variables causing inflation in Ghana between 1990 and 2009. A range of diagnostic, assessment, and selection criteria was used to pick the time series model for this purpose. This model was demonstrated to have acceptable predictive capabilities, and the results are consistent with previous research. According to the study's findings, the major variables driving exchange rate depreciation and exerting pressure on price levels are actual production and money supply.

Kamasa et al. (2022) empirically investigated the impact of inflation uncertainty on domestic investment in Ghana. Additionally, they investigated the various effects of both long-term and short-term inflation uncertainty on investment in Ghana. Inflation uncertainty was assessed using the conditional variance produced by the generalized autoregressive conditional heteroscedasticity (CGARCH (1, 1)) model. The outcomes of applying the autoregressive distributed lag (ARDL) estimator on data from 1970 to 2020 showed unequivocally that Ghanaian domestic investment is hampered by inflation uncertainty brought on by significant commodity price volatility. The study's findings show that when total inflation is examined and broken down, permanent inflation concern has a more noticeable negative effect on domestic investment than transitory inflation uncertainty after breaking down inflation into two components. The findings also showed that government spending, trade openness, domestic interest rates, and international interest rates are substantial influences on investment in Ghana. This report provides concrete policy proposals to boost investor confidence and domestic investment in Ghana, considering the economic implications of these results.

Using annual data from 1970 to 2011, Lim and Sek's (2015) study evaluated the factors influencing inflation in two groups of countries (high inflation and low inflation). An error correction model based on the Autoregressive Distributed Lag (ARDL) model was used to explain the short- and long-term impacts of each variable on inflation. Imports of goods and services, as well as GDP growth, have a significant long-term influence on inflation in low-inflation nations, according to the statistics. The data also revealed that the money supply, national expenditure, and GDP growth are long-term determinants determining inflation in high-inflation nations. In the end, no component was shown to be a major driver in countries with high inflation. In nations with low inflation, the money supply, imports of goods and services, and GDP growth all had a substantial impact on inflation.

Since 2007, according to Bleaney et al. (2019), Ghana has operated under an inflation-targeting framework, yet the inflation rate has remained consistently high. Inflation exceeded the declared objective throughout the 2007–2017 period by an average of four percentage points, even though the aim never fell below a very conservative 8% annual growth rate. It investigated whether the ineffective implementation of monetary policy is to blame for this result and discover that it is not. Interest rates react to inflation shocks in the theoretically recommended manner, and monetary policy response functions are equivalent to those derived for countries with sound monetary policies.

Within the fiscal deficit financing framework, the Acquah-Sam (2017b) study examined Ghana’s inflation trends from 1980 to 2018. The Markov-Switching Regime Dynamic Model (MSRDM) was employed to research the regime effects, with the Fiscal Theory of the Price Level (FTPL) as the study's theoretical foundation. The FTPL showed how financing a country's government budget imbalance has an impact on price stability and has macroeconomic consequences for fiscal dominance over monetary policy activities. The FTPL showed how financing a country's government budget imbalance has an impact on price stability and has macroeconomic consequences for fiscal dominance over monetary policy activities. The study also revealed that fiscal deficit financing had a bigger influence on Ghana's inflation dynamics in the higher regime than in the lower regime, where it had a more muted effect. The report presents a fiscal policy suggestion to Ghana's government, one that might aid in achieving and maintaining budgetary sustainability and consolidation while maintaining long-term low inflation.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

Inflation control is very important to Ghana's monetary and fiscal policy objectives. The primary goal of minimizing the inflation growth rate in Ghana is to reduce the cost of living and poverty levels while also ensuring macroeconomic stability. Fiscal policy is the utilization of government expenditure and taxation to impact the economy. Fiscal policy is often used by the government of a county to foster robust and sustained growth while also reducing poverty. On the other hand, monetary policy refers to a country's central bank's operations to impact its money supply through changes in interest rates, bank reserve requirements, and the purchase and sale of government securities and foreign exchange (Horton & El-Ganainy, 2022).

New Keynesian economists categorize monetary and fiscal policy as either active or passive. “When the central bank raises interest rates by more than one-for-one in response to inflation, monetary policy is active; when the central bank raises interest rates by less than one-for-one in response to inflation, monetary policy is passive. Fiscal policy is active when the fiscal authority borrows to finance an arbitrary path of expenditure and taxation, and passive when the fiscal authority adjusts its expenditures and tax rate to preserve fiscal solvency across all feasible real interest rate pathways”. In the New Keynesian model, the uniqueness of equilibrium needs either active monetary policy and passive fiscal policy, or passive monetary policy and active fiscal policy. The fiscal theory of the price level (FTPL) describes how a passive monetary policy combined with active fiscal policy results in a unique price level (Farmer & Zabczyk, 2019).

3.2 Conceptual Review of The Fiscal Theory of The Price Level (FTPL)

The Fiscal Theory of the Price Level (FTPL) is an economic theory that seeks to explain the relationship between fiscal policy, the budget deficit, and inflation. According to this theory, the price level is determined by the government's budget constraint, which is the relationship between government spending and taxation. In other words, the price level is determined by the amount of money the government spends and the amount of money it collects in taxes. Under the FTPL, if the government runs a budget deficit, it must finance that deficit by either borrowing or printing money. If the government borrows money, it increases the supply of bonds in the market, which in turn increases the demand for money and drives up interest rates. If the government prints money to finance the deficit, it increases the money supply and causes inflation. The FTPL also suggests that the central bank plays a critical role in determining the price level. If the central bank is independent and committed to keeping inflation low, it can prevent inflation from rising even if the government runs large budget deficits. However, if the central bank is not independent and is willing to finance the government's deficit by printing money, then inflation is likely to rise. Overall, the FTPL provides a framework for understanding the link between fiscal policy, the budget deficit, and inflation.

Fiscal policy governance is a significant tool for economic stabilization since it governs the quantity and structure of taxes, spending, and debt management. Fiscal policy governance has an impact on aggregate demand, wealth distribution, and the economy's capacity to create goods and services. Effective debt and fiscal management are widely regarded macroeconomic stability instruments. It ensures the optimal use of public resources and is a prerequisite for economic progress (Rena & Kefela, 2011). Fiscal policy is one of the methods used by governments to combat inflation, which is defined as a long-term increase in the overall price level of goods and services. Increasing taxes, reducing government spending, using a balanced budget, opening market operations, and controlling the money supply are some of the ways fiscal policy may be used to control inflation.

However, it is a controversial theory and has been subject to criticism and debate among economists. Some economists argue that fiscal policy can be an effective tool for controlling inflation. By increasing taxes and reducing government spending, the government can reduce aggregate demand and prevent the economy from overheating, which can cause inflation. On the other hand, other economists argue that fiscal policy may not be the most appropriate tool for controlling the price level. They suggest that monetary policy, which involves adjusting interest rates and controlling the money supply, may be a more effective way to stabilize the economy and control inflation. There are also debates about the timing and magnitude of fiscal policy measures, as well as the potential unintended consequences that can arise from government intervention in the economy. Ultimately, the effectiveness of fiscal policy in controlling the price level will depend on a variety of factors, including the state of the economy, the specific policy measures being implemented, and the broader political and social context in which those measures are being introduced.

The FTPL views the Government's intertemporal Budget Constraint (GBC) as an instrument for connecting monetary and fiscal policies. For the GBC to be in equilibrium, the government's discounted primary surplus, which includes seigniorage as a source of revenue, must be greater than (equal to) the present nominal value of the government (public) debt, which considers the monetary base. Government Intertemporal Budget Constraint (Lozano, 2008) is a measure of the public sector's long-term financial solvency.

The weak version of the fiscal theory of price level holds that while money expansion is undoubtedly a monetary process, the fiscal authority nevertheless controls it. As a result, the central bank does not influence the money supply. On the other hand, the strong form of fiscal theory of the price level proposes that, even if money growth stayed constant, fiscal policy independently determines the overall price level and, as a result, the inflation rate. Since inflation is not unquestionably a monetary phenomenon, as suggested by the works of Sargent and Wallace (1981), Woodford (1994), Carzoneri, Cumby, and Diba (1998), Carlstrom and Fuerst (1999), and Komulainen and Pirttila (2002), it follows that the central bank may not be able to commit to an inflation objective. Woodford (1994) suggests that a positive and exogenous price shock reduces the value of government debt (liabilities) owed to private individuals who have purchased or invested in government securities, which in turn lowers their wealth and the demand for goods. When this occurs, according to the FTPL hypothesis, the individual's expectations about the sustainability of fiscal policy will have a comparable wealth effect. The level of the price will rise to the level necessary to equalize the GBC if the market recognizes a negative perception about the sustainability of public finances when the discounted value of the government primary surplus deviates from the nominal value of government liabilities.

The wealth effect indicated above is produced because of the decreased worth of private assets due to this greater price. To restore the GBC, greater prices are thus necessary because increasing government debt (liabilities) causes more distortion. The consequence is that long-term inflation brought on by a budget deficit, without the money supply having any impact, may create a solid foundation for the ratio of real interest rates to economic growth rates, according to the supporters, serves as a proxy for the discount rate. According to the FTPL, fiscal authorities will decide exogenously how future income and primary expenditures will develop. The theory also contends that whenever the discounted value of primary surplus is less than the value of nominal public debt, the price level will increase to bring about the GBC condition at a given discount rate. Price is the sole adjustment variable needed to keep the GBC in an equilibrium state.

3.3 Empirical Review of the fiscal theory of the Price

According to Woodford's (1995) fiscal theory of the price level, government debt as well as current and projected tax and expenditure programs impact price levels. According to the hypothesis, the method that the government chooses to use to fund its debt is very important in determining how the inflation rate will develop over time. The idea maintains that fiscal policy only has an impact on inflation rates when the government can operate in a fundamentally different manner than families (Kocher Lakota and Phelan, 1999). Whatever the pricing trajectories they encounter, households must adhere to intertemporal budgetary limitations. According to Woodford (1995), the government is exempt from this obligation. The government may adopt non-Ricardian fiscal policies that permit certain pricing pathways, but not all, to satisfy the intertemporal budget constraint.

A study by Osei and Ogunkola (2022) was done to investigate Ghana's inflation trends under the fiscal deficit financing system from 1980 to 2018. To investigate the regime impacts of financing the fiscal deficit on inflation, the Theory of Fiscal Price Level (TFPL) was chosen as the theoretical foundation and the Markov-Switching Regime Dynamic Model (MSRDM) was employed. Ghana has two fiscal systems, according to the report, with the fiscal deficit financing system maintaining consistency throughout the examination. The research also revealed that, while its impact on inflation was somewhat subdued in the lower regime, financing the fiscal deficit had a stronger impact on Ghana's inflation dynamics in the higher regime. The paper recommends Ghana's government employ fiscal policy tools to achieve and maintain budgetary sustainability and consolidation while maintaining a low inflation rate.

Sowa and Kwakye (1993) concluded that the issue of inflation in Ghana is a complex problem for several reasons. Moreover, Ocran (2007) identified exchange rate fluctuations, money supply changes, changes in the interest rate on Government of Ghana treasury bills, and inflation inertia as the factors that determine inflation in the short run using among other techniques a VAR approach.

After accounting for inflation dynamics in Ghana using the limits test and other econometric methodologies, Adu and Marbuah (2011) discovered that real production, nominal exchange rate, broad money supply, nominal interest rate, and fiscal deficit play a significant role in the inflationary process in Ghana. After accounting for inflation dynamics in Ghana using the limits test and other econometric approaches, Adu and Marbuah (2011) discovered that real output, nominal exchange rate, broad money supply, nominal interest rate, and fiscal deficit play a significant role in the inflationary process in Ghana. They found, in keeping with prior studies, that inflation in Ghana is caused by a combination of structural and monetary factors.

Carzoneri et al. (1998) mention two techniques to calculate price level in addition to outlining the Fiscal theory of price determination. When determining the price level, they considered both the money- and the fiscal-dominant regimes. When primary surpluses are actively changed to meet the government's Present Value Budget Constraint (PVBC) for any real value of current liabilities, fiscal policy is disciplined under a Ricardian or fiscally dominating regime. The monetary policy provides the nominal anchor in this system, while the price level is created conventionally. According to Breuss (1998), the basic premise of Woodford's (1995) Fiscal Theory of Price Determination employs dynamic optimal models based on the Present Value Budget Constraint. It states that the present value of current and expected future primary surpluses must equal the real amount of the public sector's obligations.

Insah and Ofori-Boateng (2012) used yearly data from 1980 to 2010 to replicate and investigate the dynamic link between fiscal deficits, the money supply, and inflation. The Stock-Watson dynamic OLS (DOLS) model, which is based on variable leads and lags, was used, as well as a static error correction model (ECM). This method removes simultaneity bias and is resistant to small sample sizes. The model was used to evaluate the elasticities for both short-run and long-run factors impacting the total price level. Results show that the dynamics of inflation in Ghana are significantly influenced by both the money supply and the deficit. The study's main finding demonstrated the importance of delayed money supply values and provided evidence that the reaction of inflation dynamics to changes in money supply depends on both the cumulative impacts of earlier money supply doses and the present level of supply.

Takyi and Leon-Gonzalez (2020) used the Dynamic stochastic general equilibrium (DSGE) model to analyze and anticipate the model was used to evaluate the elasticities for both short-run and long-run factors impacting the total price level. The goal of this research was to create and estimate a standard New-Keynesian DSGE model for the Ghanaian economy to examine the impact of fiscal policy shocks on key macroeconomic variables. The model was also used to analyze the influence of government spending, consumption tax, and labor income tax shocks on household consumption and working hours. The model looked at two labor markets: perfectly and monopolistically competitive labor markets, and it included heterogeneous households divided into two groups: financially excluded and financially included. They estimated the model's parameters using a Bayesian technique using quarterly time series data from 1985Q1 to 2017Q4. Overall, they found out that increasing government spending has a favorable effect on consumption, production, employment, and inflation, whereas when wages are sticky, it crowds out demand and dampens the expansionary effect on output. Their policy experiment results reveal that the presence of sticky wage dynamics in the economy necessitates the participation of a high proportion of households (75%) who are unable to participate in financial markets to create a relatively short-lived positive consumption multiplier of government expenditure shock. They also discovered that positive consumption and labor income tax shocks reduce consumption by financially excluded households more than by financially included households. They concluded that although financially affected (included) families reduce their working hours, financially excluded households increase their working hours to offset the negative effects of such shocks on their consumption.

3.4 Research Design and Approach

Secondary data was gathered from reports by recognized entities such as the World Bank, the International Monetary Fund (IMF), and the Government of Ghana reports. The data was analyzed using a descriptive technique and content analysis. To give full insights into the topic area, the research also undertook a thorough examination of relevant literature, with a focus on the macroeconomic framework.

3.5 Research Population

The larger population from which data will be taken includes the working papers of the Bank of Ghana, publications from the Ghana Statistical Service, the World Bank, the International Monetary Fund (IMF), the Ministry of Finance, the World Development Indicators, and articles Google Scholar relevant to the work. This category was chosen since they constitute the sole decision-makers in Ghana's macroeconomic system and the global economy.

3.6 Data Sources and Collection Method

Since the study seeks to appraise the spiraling inflation in Ghana amid the recent financial crisis from 2020 and beyond, it will use data from 2020 till now. The analysis will use annual data from the Bank of Ghana working papers, Ghana Statistical Service, and the Ministry of Finance on the chosen macroeconomic variables from 2020 to date. Inflation, crude oil prices, exchange rates, money supply, and government spending are the five variables to be taken into consideration. Each study variable is pertinent since it is anticipated that they would all play a significant role in explaining inflation.

3.7 Data Processing and Analysis

Data from all relevant resources were used to answer the study questions. After addressing the primary research topics, the paper examined government activities and made suggestions based on The Fiscal Theory of the Price Level (FTPL).

CHAPTER 4
DISCUSSION OF FINDINGS

4.1 Introduction

The data obtained has been examined and provided in this part of the study with the primary aim of interrogating the research purpose of appraising the high rise of inflation in Ghana since 2020. The findings from the data gathered have been discussed below using a thematic method of analysis to explain the research questions. The results will be discussed under three (3) main themes namely, the main causes of Ghana's Spiral inflation since 2020, the effects of Ghana's spiraling Inflation since 2020, and the specifics of the government of Ghana's initiatives to deal with the issues arising from the economic crisis.

4.2 Research Questions

4.2.1 Research Question 1: What Are the Main Causes of Ghana's Inflation?

Firstly, The COVID-19 pandemic has significantly impacted economies worldwide, and Ghana is no exception. One of the effects of the pandemic on Ghana's economy has been an increase in inflation. In 2020, Ghana's inflation rate rose to 10.4% due to disruptions caused by the pandemic, such as supply chain disruptions, reduced trade, and decreased economic activity. The government's fiscal and monetary policies aimed at mitigating the economic impact of the epidemic also contributed to the rise in inflation. (Bank of Ghana, 2020). The government introduced stimulus packages to support businesses and households, which led to increased government spending and a rise in the money supply. This increase in the money supply and the reduced economic activity led to an increase in the general price level. (IMF,2020). However, in 2021, the rate of Inflation started to decline, reaching 8.5% in April 2021. The Bank of Ghana implemented several measures to reduce inflation, including tightening its monetary policy, increasing the policy rate, and introducing liquidity management operations (Bank of Ghana,2021).

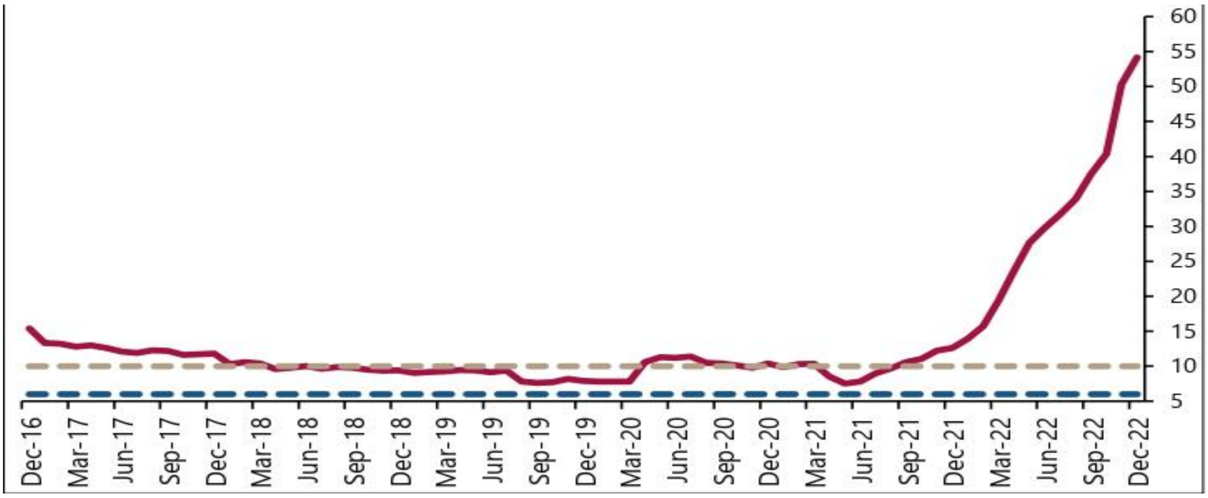
Secondly, since the beginning of 2022, the world's climate drastically changed, reflecting fresh geopolitical developments related to the war in Russia and Ukraine. The impact of geopolitical tensions on commodity prices, additional supply chain bottlenecks on manufacturing output, the withdrawal of monetary policy stimulus in some significantly advanced economies, and vulnerabilities related to rising debt, particularly in emerging markets and developing economies, are some of the downside risks currently confronting global growth. (IMF,2022). One potential impact of the conflict is on global oil prices, as both Russia and Ukraine are major oil producers and exporters. The war between Russia and Ukraine worsened supply constraints caused by COVID, increased crude oil prices, and raised inflation expectations, adding to the already high global inflation (Bank of Ghana,2022). Global lending conditions have tightened as leading central banks hiked policy rates to combat growing inflation.

Furthermore, the global economic slowdown and prevailing low levels of international inflation contributed to a reduction in external inflationary pressures. However, there were growing concerns about the crisis's economic effects, which prolonged and prompted further deterioration of attitudes, increased sovereign bond spreads, exchange rate volatility, and threats to reserve buffers, as well as abrupt reversals of financial flows. (World Economic Outlook Update,2022). These global occurrences had an impact on Ghana's imports, exports, tax receipts, and foreign exchange earnings, which led to a downturn in economic activities. In the short- to medium-term, a sustained slowdown in exports had a detrimental impact on reserve accumulation and currency rate stability. Government revenue was also hampered by a reduction in imports. (Bank of Ghana, 2022).

Early in 2023, there was some improvement in the state of the global economy as markets started showing slower growth and reduced inflation in advanced countries. In March, the European Central Bank, the Bank of England, and the United States Federal Bank of Ghana Monetary Policy Committee Press Released Two Reserves that have all raised their respective policy rates, albeit more slowly and with a commitment to maintaining a tight monetary policy stance until inflation is contained. (World Economic Outlook Update, 2023). “Recent pricing changes suggest that the economic inflationary spike that has been going on since December 2021 has reached its pinnacle. The most recent figures after the Monetary Policy Committee meeting in January showed that headline inflation had fallen twice in a row, from a peak of 54.1% in December 2022 to 53.6% in January 2023 and 52.8% in February. Inflation for food dropped from 61 % in January 2023 to 59.1 % in February 2023, while inflation for non-food was constant at 47.9%. (Bank of Ghana, 2023).

The Bank's core inflation gauge decreased from 53.2 % in December 2022 to 52.8 % in January and to 52.0% in February 2023, indicating a reduction in underlying inflationary pressures.” Additionally, banks, households, and enterprises all had lower weighted inflation predictions (Bank of Ghana, 2023).

Figure 6: Headline Inflation (y/y, %)



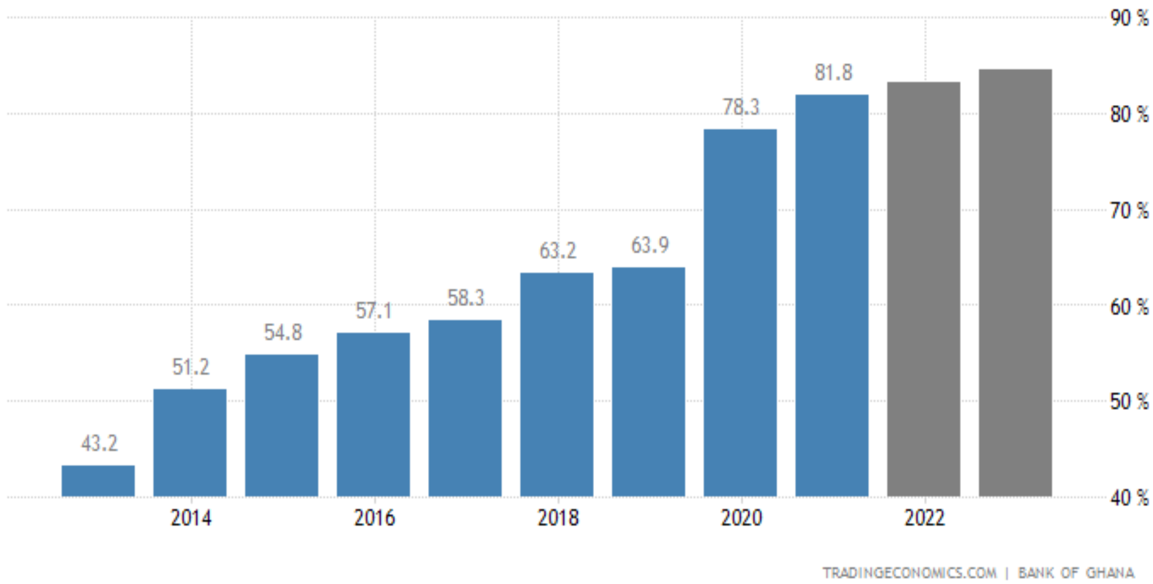
***Source**: https://www.bog.gov.gh/wp-content/uploads/2023/02/Monetary-Policy-Report-January-2023.pdf*

After reaching 50.3% in November, inflation increased to 54.2% in December 2022. The increase was widespread, with higher price pressures for housing, transportation, clothes, and footwear. In February, inflation decreased from January's 53.6% to 52.8%. According to the release's specifics, costs for food and drink rose more slowly in February than prices for transportation, which rose more quickly. In February, consumer prices rose faster than in January, by a seasonally adjusted 1.87% over the prior month (Bank of Ghana, 2023).

Lastly, Before the epidemic, Ghana's fiscal debt was already growing very quickly because of the government's need to engage in several expensive projects, such as revamping the banking industry and offering free secondary education to all citizens of Ghana. The Covid-19 and the Russian-Ukraine war have worsened Ghana's predicament, but they are not the main causes of the country's economic problems. (Nixon, 2023). According to the Bank of Ghana, there has been significant stress placed on the 2022 Budget's execution. A significant funding deficit has been caused by a combination of factors including revenue shortages, spending restrictions, a lack of access to the foreign capital market to finance the budget, uncovered auctions, and non-resident portfolio reversals. In Ghana, it has been shown that a key predictor of inflation is the fiscal deficit component and the financing that goes along with it. Because higher prices enhance nominal GDP while holding other factors constant, an increase in the price level immediately lowers the actual value of government debt as well as the debt-to-GDP ratio. (Neely, 2022).

"Preliminary budget implementation statistics from January to December 2022 revealed a larger overall broad fiscal deficit (cash basis) of GHS 49.7 billion (8.1% of GDP). The primary balance revealed a deficit of GHS 4.0 billion (0.6% of GDP), in contrast to the primary surplus goal of GHS 2.5 billion (0.4% of GDP). All income and grants were GHS 96.7 billion (15.7% of GDP), falling slightly below the revised target of GHS 96.8 billion (15.73%). The total amount spent was GHS 146.3 billion (23.8% of GDP) more than the amended target of GHS 135.7 billion (22.0% of GDP). These changes resulted in a GHS 49.7 billion shortfall, with domestic resources covering GHS 48.2 billion". (PWC,2022).

Figure 7: Government Debt to GDP Growth



***Source**: https://tradingeconomics.com/ghana/government-debt-to-gdp*

Furthermore, Ghana's debt load increased significantly from 2017 to 2022 because of three key issues. To begin with, the government incurred enormous debt from its power producers and suppliers in the energy industry. Second, the Bank of Ghana launched a thorough financial sector cleaning, which required the issue of more than US$3 billion in bonds to pay consumers of bankrupt banks and other organizations. Finally, the COVID-19 epidemic had a significant impact on the Ghanaian economy, resulting in lockdowns, border closures, travel restrictions, and a drop in crude oil prices. These economic difficulties resulted in a $2 billion decrease in revenue, while COVID-19-related costs increased the government's overall spending by $1.7 billion. As a result, Ghana's overall budgetary effect in 2020 is expected to be $4 billion. As a result of Ghana's failure to produce adequate revenue for debt service, several international credit rating agencies downgraded the country's economy. This downgrading suggested to investors that Ghana's sovereign bond was rife with default risk, making it less appealing and limiting the government's capacity to raise cash in the global financial market. Given this circumstance, the government has two choices: borrow domestically, crowd out the private sector, or seek overseas borrowing. (Sarkodie, 2022).

4.2.2 Research Question 2: What Are the Effects Of Ghana's Inflation?

The exchange rate shows how much a currency is worth relative to other key international trading currencies, such as how much the Cedi is worth in US dollars, British pounds, European euros, and other currencies for conversion purposes. Changes in any of these variables can affect the other. Inflation and currency exchange rates are strongly correlated Anwar (2019). As inflation increased because of the nation's huge current account deficit, the Ghana Cedi has lost more than 50% of its value versus the US dollar over the past year. Because the price of imported goods is set in US dollars when inflation increases the same number of Ghanaian cedis buy less than it did before, which results in a decline in the value of the cedi about the US dollar in Ghana.

Exchange rates are usually based on how attractive a specific currency is viewed, therefore a decline in that currency's purchasing power causes a decline in attractiveness, which further lowers the exchange rate (IMF,2022b). Even while it may have started as demand-pull inflation, Ghana's inflation during the past year has primarily been cost-push inflation. In 2020, when COVID-19 was at its worst, numerous nations put policies in place to slow the virus's spread. However, these measures curtailed productivity, complicated the supply chain, and reduced demand. The World Bank estimates that as a result, the world economy shrank by around 3.1%. The BoG used several monetary policy measures to increase liquidity and boost economic activity back to pre-Covid levels to reverse the slide. Inflationary pressures gradually increased, raising the rate from 7.8% in March 2020 to 12.6% by the end of the year 2021. Demand-pull inflation and the devaluation of the Cedi versus all major trade currencies occurred in the first quarter of 2022 because of the BoG's delayed response to tightening monetary policy in response to the economy's surplus liquidity.

The crude oil price significantly increased at the same time due to the conflict between Russia and Ukraine, which influenced both the price and the availability of crude oil globally.

(Adu, 2023). The Cedi came under severe pressure in 2022 because of portfolio reversals, a decline in foreign direct investment inflows, and rising demand pressures. After recovering some of the losses from December, the Ghana cedi lost 30% of its worth about the US dollar for the entire year 2022. This contrasts with a depreciation of 4.1%in 2021. The Ghana Cedi lost value cumulatively against the US dollar, the British Pound, and the Euro in the year up to January 2023 by 19.1%, 21.4 %, and 20.7 %, respectively. The Ghana Cedi has decreased by 1.5 % in value relative to the US dollar and has increased by 0.1 and 0.7 percent in value relative to the British Pound and the Euro. (Bank of Ghana, 2023).

Figure 8: USD/GHS Exchange Rate

***Source**: https://tradingeconomics.com/usdghs*

According to Fitch Solutions, "Ghana will have a small current account deficit of 4.0% of GDP in 2023, down from the 4.4% reported in 2022. The Ghana cedi's value is anticipated to benefit as a result. There will likely be some support for the cedi from significant price increases in Ghana's three main export commodities—cocoa, crude oil, and gold—and the local currency will continue to rise, but there will be much less depreciation pressure than in 2022". (Fitch Solutions, 2023).

The pursuit of long-term sustainable economic development and low inflation is critical for Ghana as it attempts to enhance living standards and alleviate poverty. Ghana, as a developing country, understands the importance of economic progress in accomplishing these objectives. It recognizes that high inflation may be harmful to an economy, whereas moderate inflation can have several benefits. Ghana has encountered chronic issues in regulating inflation, owing to the complexities of its underlying causes and the efficiency of inflation management techniques. Demand, spurred mostly by the monetization of fiscal deficits, has been a primary driver of inflation in Ghana. Furthermore, real, or supply-side variables have contributed to the country's excessive inflation rates. Notably, cyclical food inflation has had a significant role in Ghana's inflationary tendencies. The World Bank Economic Analysis Report (March 2023) stated that “GDP growth is estimated to have slowed to 3.2% in 2022, down from 5.4% in 2021. The slowdown affected mostly the non-extractive sectors, as the recovery in gold exports supported extractives growth”.

Both the agriculture and services sectors in Ghana saw lower growth rates in 2022 as compared to the previous year. High inflation and interest rates harmed the economy, causing a drop in private consumption and investment. Furthermore, due to limited access to financial markets and the weight of large debt payment requirements, the government's demand was weakened. As a result, the budget deficit for 2022 exceeded the objective. On a cash basis, the entire fiscal deficit was 9.9% of GDP, above the target of 6.7%. Looking ahead, the growth rate is expected to slow further to 1.6% in 2023 and stay sluggish in 2024 before gradually regaining its potential level.

The cost-of-living crisis in Ghana is becoming unbearable for most Ghanaians as the majority struggle to cope with the soaring prices. Birches Group LLC reported that in Ghana, inflation reached 29.8% in June 2022, the highest level in two decades, while food prices had climbed by 30.7% since 2021. The Ghana Statistical Service reported that the inflation rate surged to 54.1% in December 2022, driven by steep increases in food, transportation, and housing costs. One main noticeable issue that has contributed to the cost-of-living crisis in Ghana is the exchange rate depreciation. Ghana mainly relies on imported goods, and with fewer commodities being exported from Ghana, the exchange rate will not increase, and the Cedi value will continue to decrease. This means the weaker the cedi gets; the more prices rise. (Ghana Statistical Services,2023).

The sustainability of Ghana's debt has been a source of concern, as highlighted by the most recent IMF analysis in 2021. According to the research, Ghana is at high risk of financial distress and is subject to market access shocks as well as high debt service expenses. Ghana's creditworthiness has been lowered by international credit rating agencies, sending its ratings further down into junk territory. S&P cut Ghana's foreign and local currency credit ratings, citing increased financing and external pressures on the economy. Fitch Ratings also lowered

Ghana's Long-Term Local-Currency Issuer Default Rating (IDR) and withdrew issue ratings on some local-currency bonds due to missed payments. The Ghanaian government expressed disappointment at the downgrades despite implementing policies to address fiscal challenges and debt sustainability. Efforts are underway to reach an agreement on settling outstanding debt obligations with bondholders by April 2023.

4.2.3 Research Question 4: What Are the Initiatives of The Government of Ghana To Deal With The Issues Arising From The Economic Crisis?

Fiscal policy governance, which includes the administration of taxes, spending, and debt, is critical to economic stabilization. It can influence aggregate demand, wealth distribution, and the economy's general capability to stimulate the creation of products and services. As fiscal debt accounts for a larger portion of Ghana's inflation, the government of Ghana is implementing more aggressive fiscal measures to address this issue. This section of the study examined some of the policies.

The main initiative the government of Ghana is looking forward to implementing is the IMF extended credit facility. The IMF and the Government of Ghana have reached an agreement at the staff level on economic policies and reforms, which will be backed by a new three-year Extended Credit Facility (ECF). The purpose of the program is to restore macroeconomic stability and debt sustainability while simultaneously protecting the vulnerable, ensuring financial stability, and laying the framework for a strong and inclusive economic recovery. To that end, the authorities have undertaken a comprehensive debt operation that includes fiscal reduction, anti-inflationary measures, and structural reforms to address structural vulnerabilities and increase resilience to shocks (IMF,2022).

In addition to the IMF lending facilities, the Ghanaian government has proposed three additional tax revenues: the Income Tax, Excise Duty, and the Growth and Sustainability Amendment Bills, which, if implemented, are estimated to earn around GH4 billion yearly. The government expects an increase in domestic income from the new planned levies, which would enhance Ghana's economic condition following the shocks of COVID-19 and the Russia-Ukraine war. It will also make it easier for the Board of Directors to approve the $3 billion International Monetary Fund (IMF) Programme staff-level agreement. (Tornyi, 2023).

Also, the quick recovery of foreign market access, which remains vital for Ghana to accomplish its development objectives, would be a significant component in analyzing the effectiveness of Ghana's debt settlement. Given this, the Government of Ghana has launched the Domestic Debt Exchange Programme (DDEP) to restore healthy public finance and sustainable debt levels, as well as to jump-start economic development in the aftermath of the COVID-19 epidemic. The Invitation is to exchange certain domestic notes and bonds denominated in Ghanaian Cedis (GHS), E.S.L.A. Plc, and Daakye Trust Plc (collectively known as 'Eligible Bonds') for new benchmark bonds with the same aggregate principal amount, lower average coupon, and a longer average maturity than these eligible Bonds. The objective is to reduce the excessive burden caused by the economy's debt while still meeting the IMF's debt sustainability standards until 2028 and beyond. This domestic debt exchange is part of a bigger effort to restore debt and financial sustainability as transparently, efficiently, and quickly as possible. (IMF,2022).

Lastly, Amid the cedi's decline versus the US dollar and rising gasoline prices, Dr. Mahamadu Bawumia, Ghana's Vice President, proposed a new government strategy known as Gold for Oil (G4O) in December 2022. This program will enable the government to pay for imported oil products in gold, in direct exchange for gold acquired by the Bank of Ghana which will help stabilize prices of fuel products, as well as reduce pressure on Ghana's foreign exchange. Payment for oil will be made through two channels: barter trade or currency earned by selling gold to a broker. He recently stated that "the Government will save approximately $4.8 billion per year because of the Gold for Oil policy, which will take effect in 2023" (Ministry of Finance, 2023).

For the Fiscal Theory of the Price Level (FTPL) to be valid, the government must implement specific passive monetary measures alongside active fiscal policies. These measures are crucial for establishing the equilibrium predicted by the New Keynesian model, as outlined by the FTPL.On a global scale, monetary policies frequently incorporate various measures to effectively manage money's value, availability, and expense in conjunction with expected economic activity. Typically, these policies aim to achieve several common goals, including price stability, the maintenance of balanced payments, job creation, and sustainable growth. In the context of Ghana, monetary policies have transitioned from direct instruments to a market-based approach, with a primary focus on controlling the money supply. (Quartey et al. 2017).

Over the years, The Bank of Ghana has adopted an Inflation Targeting (IT) framework as its approach to conducting monetary policy. Under this framework, the central bank utilizes the Monetary Policy Rate (MPR) as its primary tool for determining the monetary policy stance. The Monetary Policy Rate (MPR) is the interest rate determined by the central bank, which is used to shape the cost and accessibility of money within the economy (Money Supply). Its purpose is to influence the overall monetary conditions and financial environment. By doing so, the central bank aims to establish a foundation for managing inflation expectations in the economy. (Monetary Policy Report – March 2023 – Bank of Ghana, 2023). Despite a marginal decline in headline inflation for two consecutive months, the inflation levels remained elevated when compared to the medium-term target of 8±2 percent. To strengthen the economy's stability and accelerate the disinflation process, the Monetary Policy Committee (MPC) decided to raise the Monetary Policy Rate by 150 basis points to 29.5 % during the March 2023 meeting. (Bank of Ghana,2023).

In February 2023, the Expansion of the broad money supply (M2+) in Ghana was driven by a significant increase in the Net Domestic Assets (NDA) of depository corporations. However, this growth was tempered by a contraction in Foreign Assets (NFA). Meanwhile, the annual growth in reserve money experienced a substantial rise, primarily due to the expansion in the NDA of the Bank of Ghana. This expansion was a result of increased Net Claims on Government (NCG) and outflows through the Other Items Net (OIN). On the other hand, the Central Bank's Foreign Assets (NFA) decreased due to higher balance of payment support, increased interventions in the foreign exchange market, and limited foreign inflows. Notably, there was a notable increase in nominal credit growth to the private sector, largely influenced by portfolio rebalancing by Deposit Money Banks (DMBs) and the impact of exchange rate revaluation. However, in real terms, credit to the private sector is contracted. Interest rates exhibited an upward trend, particularly at the shorter to medium end of the yield curve, aligning with a tightening policy stance. The weighted average interbank rate experienced a significant increase, leading to a rise in the average lending rates offered by banks. The inflation rate eased slightly for two consecutive months but remains above the medium-term target range. (Bank of Ghana,2023).

Furthermore, the Bank has adjusted the Cash Reserve Ratio on domestic currency deposits for banks, increasing it from 12% to 14 %, starting from April 2023. This measure aims to enhance liquidity management operations and address the prevailing excess liquidity conditions in the market. (Bank of Ghana,2023).

As a result of various measures implemented, including the introduction of new taxes, the Domestic Debt Exchange exercise, expansion of broad money supply, and the increase in the monetary policy rate and cash reserves, Ghana's inflation rate has decreased from 54.1% in December 2022 to 41.2% in April 2023. Additionally, it is anticipated that the $3 billion IMF credit facility, along with these measures, will further contribute to reducing inflation in the country. (Ministry of Finance,2023).

4.3 Discussion of Findings

The initial research question of the study aimed to determine the primary factors contributing to inflation in Ghana since 2020. The study revealed that one of the major causes of inflation is fiscal debt. This study's findings support the research conducted by Aimola and Odhiambo (2021), which proposes that government debt contributes to inflation. As a result, the increased demand for goods and services puts upward pressure on prices. The study confirms the inflationary consequences associated with public debt management in Ghana. Therefore, the government must exercise prudence when contemplating expansions in public debt to mitigate potential fluctuations in inflation and the associated risks posed to the economy. The findings of the study align with the Bank of Ghana Monetary Report (2022) and indicate that the ongoing Russia-Ukraine conflict and the COVID-19 pandemic significantly impact Ghana's economy. These events result in global uncertainty, supply chain disruptions, higher crude oil prices, and increased inflation expectations, intensifying global inflationary pressures. Central banks have responded by implementing higher policy rates to tackle rising inflation and tighten global financing conditions. Moreover, the study supports the research conducted by Team (2022), which identifies external inflationary pressures as the primary drivers of inflation. Factors such as demand, and supply dynamics, and their impact on commodity prices contribute to inflationary pressure. Notably, government policies also play a significant role in these factors.

The study's second research question aimed to assess the consequences of Ghana's rising inflation on the macroeconomy. Specifically, it examined the effects on exchange rates, the cost of living, the country's economic rating, and overall economic growth. The exchange rate is a significant factor contributing to Ghana's current cost of living crisis. The country heavily relies on imported goods and lacks a robust manufacturing sector. As a result, the absence of significant exports leads to a stagnant exchange rate and a continuous depreciation of the value of the Ghanaian Cedi. This decline in the value of the Cedi is widely recognized and has eroded the confidence of many Ghanaians in investing in the local currency. Consequently, a lack of confidence in the Cedi has created a ripple effect, causing individuals to seek alternative currencies like the US Dollar instead of holding onto the Cedi. The study also revealed a positive correlation between the exchange rate and the rate of inflation in Ghana. This implies that an increase in the exchange rate, or the depreciation of the cedi, leads to higher costs for imported goods and services. The exchange rate's depreciation impacts inflation by importing raw materials for service production. The increased production costs resulting from the exchange rate depreciation eventually led to a rise in the general price level, thereby contributing to inflation. Additionally, as inflation increases, the purchasing power of the currency decreases. This reduction in value has prompted a currency exchange rate decline relative to other currencies. The study's findings align with the research conducted by Alnaa and Ahiakpor (2011), which suggests that a lack of foreign exchange in developing countries often leads to balance of payments deficits. This situation can result in currency devaluation and import restrictions, causing an increase in the prices of imported goods and their substitutes. Consequently, this hurts domestic prices. Another study by Dordunoo (1994) similarly concludes that rapid exchange rate depreciation and the subsequent rise in import prices are significant contributors to inflation. Furthermore, the study highlights the detrimental impact of inflation on Ghana's economy. As inflation rates increase, it leads to a decline in GDP, resulting in a slowdown of the country's economic growth. This finding is consistent with the research conducted by Kankpeyeng et al. (2021), who also concluded that GDP experiences growth at moderate and low levels of inflation but exhibits negative growth at high inflation rates in Ghana, contributing to an economic slowdown. To foster economic growth, policymakers should strive for lower inflation targets and minimize uncertainty surrounding inflation. Finally, the study findings lead to the conclusion that Ghana faces significant challenges due to its substantial public debt and decelerating income growth, which hampers the government's ability to implement programs and policies effectively. Consequently, credit rating agency Fitch downgraded Ghana's economy to a 'CCC' rating, indicating to investors that Ghana's sovereign bond is not profitable and carries a high risk of default. As a result, the government may encounter difficulties in obtaining funds from the international financial market, necessitating domestic or foreign borrowing as alternative options.

The last research question sought to probe into the monetary and fiscal policies the government of Ghana is implementing to reduce inflation and the price level.

The findings indicate that the government of Ghana is implementing a significant initiative known as the Domestic Debt Exchange policy. This policy is designed to address the issue of public debt and bring it to a sustainable level. By implementing this policy, Ghana aims to achieve fiscal savings, which will enable the country to gradually reduce its debt-to-GDP ratio and ensure a sustainable fiscal position. The budget includes measures such as spending cuts and revenue-enhancing strategies to achieve a return to a primary fiscal surplus. This aligns with the findings by (IMF,2023), that debt restructuring is typically considered as a final measure when all other attempts to address the debt situation have been exhausted and there is an immediate necessity to alleviate the debt burden or demonstrate a commitment to reducing it. This intricate process entails negotiations between debtors and creditors and may result in significant expenses, reputational risks, and adverse effects on the overall economy. Moreover, it can have unfavorable consequences for creditors, diminishing their capacity to offer concessional funding and causing ripple effects in global markets.

The study suggests that the implementation of three new tax measures has the potential to mitigate inflation. By increasing taxes, individuals' purchasing power is reduced, thereby easing inflationary pressures. This finding is consistent with the World Bank's report (2022), which emphasizes tax policy as a potential tool for governments to address the adverse effects of high inflation, particularly on vulnerable populations affected by soaring energy and food prices. However, it is important to note that rapid policy responses to inflation through tax measures may carry the risk of policy errors. Additionally, the impact of high inflation is exacerbated by the consequences of policy actions taken in response to the COVID-19 pandemic, such as tax cuts and lenient administrative measures, which have resulted in significant revenue losses for some countries.

Furthermore, the Government of Ghana has secured a USD 3 billion loan facility to restore stability in macroeconomics and ensure sustainable management of debt, while also introducing comprehensive reforms to enhance resilience and establish the groundwork for robust and inclusive economic growth. The successful execution of the program relies heavily on capacity building and ongoing assistance from development partners. Nevertheless, as a nation continues to borrow, its debt burden rises, resulting in inflationary pressures, as indicated by the research findings of Aimola and Odhiambo (2021b). This contradicts the outcomes of the study.

The research findings suggest that specific monetary policies, such as modifications to the money supply, inflation targeting, and adjustments to cash reserve ratios, have demonstrated positive outcomes in managing inflation in Ghana. The responsibility of controlling the money supply in Ghana falls under the purview of the Bank of Ghana. The study revealed a long-term positive correlation between money supply and inflation, a negative correlation between interest rates and inflation, and a positive correlation between the exchange rate and inflation. Therefore, the study recommends that while monetary policy plays a crucial role in controlling inflation, it should be complemented by fiscal and other non-monetary measures. This aligns with the conclusions drawn by Ahiabor (2013) and reinforces the significance of employing a multi-faceted approach to combat inflationary pressures.

4.4 Summary of Major Findings

Achieving inflation levels below the targeted 8% can be realized through accurate prediction of the variables that influence inflation by the government. Knowing the determinants of inflation helps the government to formulate realistic policies that yield good results. Therefore, this study was conducted to ascertain the relevant variables that have a significant relationship with inflation. The study goes further to investigate how these variables have affected the Ghanaian economy at large and some policies that the government of Ghana is putting in place to curb the high rise.

The study employed the fiscal theory of the price level to determine the major monetary and fiscal policies relevant to Ghana's economic recovery. The findings revealed that:

- The main causes of Ghana's spiral inflation since 2020 are the Covid -19 Pandemic, the Russian-Ukraine war, Global inflation pressures, and Ghana's debt repayment.
- The effects of High inflation on the economy include Rising fiscal debt, Balance of Payment deficit, Exchange rate appreciation, Cedi depreciation, and the downgrade of the economy.
- Among others, the Government fiscal policies to deal with the issues arising from the economic crisis are the IMF Extended Credit Facility, the Domestic Debt Exchange Programme, the Imposition of Taxes, and the Gold for Oil Initiative.
- In addition to these fiscal policies, the Government is also using monetary policies such as increasing interest rates, reducing the money supply, tightening the monetary policy rate, and Resetting Cash Reserves.

The findings indicate that the domestic economy still faces relatively tight global financing conditions, emerging risks in the global financial system, and heightened uncertainty about the global economic outlook. The domestic debt exchange, new revenue measures, and structural fiscal reforms will provide significant reductions in debt service and help create fiscal space.

4.5 Conclusion

This study lends empirical evidence to the Fiscal Theory of the Price Level, which holds that government debt causes inflation. As a result, rising demand for products and services puts upward pressure on prices. The study's findings confirm the inflationary impact of Ghana's government debt management. Monetary policy is likely to be overshadowed by expansionary fiscal policy in an economy like Ghana's, where fiscal dominance is prominent. As a result, it is suggested that a combination of stricter fiscal policy and complementary monetary policy be implemented to constrain aggregate demand and effectively handle inflation. As a result, the government should proceed with caution when evaluating any increases in public debt to limit changes in inflation and the accompanying dangers to the economy.

4.6 Limitations to Study

One significant constraint of this study was the limited availability of precise and up-to-date data.

4.7 Policy Implications and Recommendations.

The economic effects of inflation require that the government is constantly working to control this scourge. Ghana has been successful in delivering sustained economic growth benefiting from decades of rising export revenues principally from gold, cocoa, and crude oil. However, sharp falls in export earnings and remittance inflows, fiscal deficits, excessive domestic and foreign borrowings, and food price spike triggered by the Russia-Ukraine conflict, triggered depreciation of the cedi and inflation to over 50% at the close of 2022. The route out of Ghana's economic turmoil will be difficult. Debt payment expenses will be reduced through an IMF-backed restructuring plan, which will be supplemented by severe austerity measures. The findings are relevant for policy development and implementation.

The primary objective of the Bank of Ghana is to pursue monetary and financial policies that promote price stability. To effectively accomplish this mission and enhance its ability to manage the economic impact, it is crucial to bolster the central bank's independence. This will empower the Bank of Ghana to better handle fiscal implications. To solidify its independence, the Bank of Ghana should prioritize the reinforcement of its interbank foreign exchange market. Additionally, adopting market transactions for determining the daily official exchange rate will be beneficial. Furthermore, it is imperative to discontinue the practice of the central bank acquiring foreign currency funding for priority sector imports. The Bank of Ghana should carefully enforce its laws on foreign currency repatriation and transactions denominated in foreign currency. Banks should only open business FX accounts with verifiable inflow sources and personal accounts with verifiable inflow sources. Measures should be taken to restore Cedi's dominance in domestic transactions, limit dollarization, criminalize foreign currency trading, review import sector policies, maintain low inflation, and monitor the level of dollarization based on Bank of Ghana data. These measures can help to achieve and maintain low inflation rates.

Secondly, increasing domestic revenue mobilization is essential for successful fiscal consolidation and provides the foundation for sustainable growth. As a result, the government must strengthen revenue management by developing practical measures to assist the Ghana Revenue Authority (GRA) in addressing tax evasion, tax avoidance, and corruption at all levels of government. A fundamental component of this strategy is to increase international tax cooperation to considerably reduce illegal financial outflows. Simultaneously, it is critical to streamline tax laws and regulations to reduce the potential for tax evasion by encouraging justice and openness within the tax system. Furthermore, these tax laws and regulations must be fundamental and robust to effectively combat tax evasion.

Thirdly, Ghana faces various challenges to its long-term economic growth, including significant fiscal and balance of payments deficits, high energy costs, substantial government debt, particularly in the energy sector, limited access to credit, high borrowing costs, low agricultural productivity, a restrictive business climate, and trade barriers with neighboring regions. To finance economic growth, Ghana needs to enhance access to finance, create an environment conducive to widespread economic expansion, encourage private sector-led investment, promote affordable energy usage, involve skilled citizens in economic and social development, and raise incomes across the country. Ghana lacks a comprehensive national industrialization strategy that capitalizes on its rich manufacturing sector and connects it to agriculture. The country must create import-substitution and export-oriented industries that capitalize on its comparative advantages. It is vital to evaluate and review the One District One Factory industrialization program. Ghana can improve its trade balance and increase government revenue by implementing these steps.

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SUMMARY OF THESIS

TITLE: CURRENCY CRISIS: AN EMPIRICAL STUDY OF GHANA'S INFLATION SINCE 2020 AND BEYOND

CHAPTER ONE
INTRODUCTION

1.1 Research Background

The International Monetary Fund (IMF) defines inflation as a continuous increase in the general price level, often assessed by a consumer price index. It is an important element to consider when making savings, investment, and spending decisions since it influences budget allocation and can stifle economic progress. In Ghana, successive governments have sought to manage inflation at or around 10%, but the economy has seen fluctuating double-digit inflation rates for many years, undermining these efforts. Effective inflation dynamics control is critical for the Ghanaian government to achieve its monetary and fiscal policy objectives, lower living expenditures, combat poverty, and maintain macroeconomic stability.

Ghana experienced a steady rise in inflation and macroeconomic instability between 1990 and 2018, as well as in 2022. Inflation reached a record high of 54.1% by the end of December 2022, the highest figure in more than two decades. The current Russia-Ukraine conflict has exacerbated potential inflationary pressures, particularly in energy and food prices. To address this, the Bank of Ghana has undertaken tough fiscal and monetary policies aimed at reducing the budget deficit from 12.8% of GDP in 2022 to 10.3% in 2023, with revenue-enhancing reforms supporting this. Furthermore, the current account deficit is expected to fall from 1.6% of GDP in 2022 to 3.3% in 2023 (African Development Bank, 2023).

1.2 Research Problem Statement

This study will examine and assess the veracity of the official explanations provided by the government that the global economic turmoil which has seen this phenomenon of high inflation rates and downturns was caused by the COVID-19 pandemic, and heightened by Russia's invasion of Ukraine, investors pulling funds out of developing economies to invest in bonds in the developed world, depreciating currencies, and increased borrowing costs have worked together to cause an economic crisis in Ghana. This study will examine and assess the veracity of the official explanations provided by the government that the global economic turmoil which has seen this phenomenon of high inflation rates and downturns was caused by the COVID-19 pandemic, and heightened by Russia's invasion of Ukraine, investors pulling funds out of developing economies to invest in bonds in the developed world, depreciating currencies, and increased borrowing costs have worked together to cause an economic crisis in Ghana.

1.3 Research Objectives

This study provides a qualitative assessment of Ghana's rising inflation since 2020 and beyond, identifying key causes and impacts, and making recommendations for policymakers and stakeholders. It will be shared with the Bank of Ghana, ISSER, Ministry of Finance, and African Development Bank.

1.4 Research questions

What are the main causes of Ghana’s Spiral inflation since 2020?
What are the effects of Ghana’s Spiral inflation since 2020?
What are the specifics of the Government of Ghana’s initiatives to deal with the issues arising from the economic crisis?

1.5 Research Method

The study aims to assess the recent economic crises resulting in rising prices in Ghana from 2020 and beyond. It will use data from Bank of Ghana working papers, the Ghana Statistical Service, and the Ministry of Finance. The five factors to be considered are inflation, crude oil prices, currency rates, money supply, and government spending. A descriptive approach and content analysis were used to analyze the data, and a detailed assessment of relevant literature was conducted to provide comprehensive insights into the issue area. Based on The Fiscal Theory of the Price Level (FTPL), the report analyzed government operations and gave recommendations. Secondary data was acquired from reports by reputable organizations such as the World Bank, the International Monetary Fund (IMF), and the Ghanaian government.

CHAPTER TWO

LITERATURE REVIEW

Chapter Two presented a review of Ghana's macroeconomic performance across many variables and issues, with an emphasis on monetary and fiscal policy. The chapter also looked at the current literature on comparable research done in this field.

2.1.1 Coronavirus Pandemic and Lockdown

The COVID-19 pandemic had a significant economic impact on Ghana, with a GHS 2.3 billion shortfall in non-oil tax collection and a GHS 808 million shortfall in import tariffs. Unemployment shrank by 4.65% by the end of 2020, with poverty increasing and half of households reducing their food purchases. Inflation increased to double digits (11.3%) in May 2020 due to rising food costs.

2.1.2 Demand and Supply Shocks during the COVID-19 Pandemic Outbreak

COVID-19 had a significant economic impact in Ghana, with demand shocks and disruptions intensifying volatility in import, export, producer, and consumer prices. Domestic economic activity slowed, endangering livelihoods, and weakening economic and financial stability.

2.1.3 Russia-Ukraine War

Food, fuel, and fertilizer prices have skyrocketed because of the ongoing crisis in Ukraine and the sanctions imposed on Russia. The conflict has also had a considerable influence on the global economy, leading to shortages and rising costs. Because of rising energy prices, Ghana's inflation rate increased from 0.3% in 2020 to 2.6% in 2021 and 8.4% in 2022. Food costs climbed 14.1% in January 2023 owing to rising energy prices.

2.1.4 Domestic Debt Exchange

The government, through the Ministry of Finance, launched a domestic debt exchange program (DDEP) to adjust the interest rate to be paid to bondholders as well as the time for which the lender expects the interest and principal to be paid. The program is especially pertinent considering Ghana's economic issues, which include rising inflation and interest rates, a weakening cedi, and frequent credit rating downgrades because of the country's poor economic status.

2.1.5 Unsustainable National Debt

According to 2021 Bank of Ghana estimates, the national debt of the nation was $45.5 billion, representing a debt-to-GDP ratio of more than 77%, even before the Covid-19 pandemic struck Ghana and Russia attacked Ukraine. According to some economists, the debt-to-GDP ratio has already risen above the 81% threshold. According to Bank of Ghana predictions for 2021, the country's national debt was $45.5 billion, marking a debt-to-GDP ratio of more than 77%.

2.1.6 Eurobonds

A fixed-income debt security known as a Eurobond is issued in a nation that uses a currency other than its own as its local unit of account. Ghana can diversify its funding options by entering the international capital market, which has the benefit of quick execution. Ghana used US$250 million of the $1 billion Eurobond it issued and US$100 million and US$216 million of the 2016 Bond proceeds to supplement the retirement of a portion of the 2007 issue in 2013. As foreign investors continued to sell Ghana's bonds due to the country's fiscal and debt problems, yields on its Eurobonds increased to their highest point in ten years. The Ministry of Finance decided to halt servicing payments on its Eurobonds, business loans, and most bilateral loans as an "interim emergency measure".

2.2 Variables under study

Inflation, crude oil prices, exchange rate volatility, government spending expenditure, and money supply are the major issues under consideration in this study.

2.2.1 Crude Oil Price

The Ghanaian economy has grown heavily reliant on crude oil, which has had a significant beneficial impact on inflation. A one-unit rise in crude oil prices is expected to result in inflationary pressures of around 0.422 units. The Bank of Ghana voiced concern about the possibility of oil prices rising further, leading to inflationary pressures. Trade profits were reduced due to high oil costs.

2.2.2 Inflation

The Bank of Ghana set an inflation target of 8 +/- 2 % in April 2022, indicating optimism about the future of the Ghanaian economy. In May and June, the rate was 27.6% and 29.8%, respectively. Food, transportation, housing, water, gas, and electricity were the key drivers of inflation, with most of these categories having higher rates than the national average. In July, inflation continued to rise, which could have an impact on the nation's economy due to its reliance on imports.

2.2.3 Money Supply

Akoto (2021) found a negative correlation between Ghana's budget deficit financing and economic growth. The Bank of Ghana's financing of the budget deficit has deteriorated since 2020 due to increased borrowing to close funding gaps. Money supply changes during the first quarter of 2020 revealed that growth typically slowed, but the broad money supply (M2) increased by 25.8% in April 2021. In October 2022, Ghana's money supply (M2) reached a record high of GHS 121.791 billion.

2.2.4 Excessive Government Expenditure (Budget Deficit)

Ghana's economic development initiatives have placed a strong emphasis on public investment and spending, but this has resulted in excessive inflation, negative real interest rates, an overvalued currency, and the formation of illegal markets. The introduction of the single-spine salary structure has increased the cost of wages, reducing efforts to generate revenue, aggravating fiscal slippages, and causing a rapid increase in government debt. Obeng & Daniel (2017) suggest that growing expenditure may be economically damaging as it disincentivizes work, investment, and demand, leading to rising indebtedness, devaluation of the currency, inflation, interest rate rises, and crowding out.

CHAPTER THREE

METHODOLOGY

This chapter gave a conceptual outline of the fiscal theory of the price level.

The Fiscal Theory of the Price Level (FTPL) is an economic theory that seeks to explain the relationship between fiscal policy, the budget deficit, and inflation. It suggests that the price level is determined by the government's budget constraint, which is the relationship between government spending and taxation. If the government runs a budget deficit, it must finance it by either borrowing or printing money. The central bank also plays a critical role in determining the price level, as it can prevent inflation from rising even if the government runs large budget deficits. Overall, the FTPL provides a framework for understanding the link between fiscal policy, the budget deficit, and inflation.

Fiscal policy governance is a significant tool for economic stabilization since it governs the quantity and structure of taxes, spending, and debt management. Fiscal policy governance has an impact on aggregate demand, wealth distribution, and the economy's capacity to create goods and services. Effective debt and fiscal management are macroeconomic stability instruments that ensure the optimal use of public resources and are a prerequisite for economic progress. Fiscal policy is one of the methods used by governments to combat inflation, which is defined as a long-term increase in the overall price level of goods and services. However, it is a controversial theory and has been subject to criticism and debate among economists.

Some argue that fiscal policy can be an effective tool for controlling inflation, while others argue that monetary policy may not be the most appropriate tool for controlling the price level. There are also debates about the timing and magnitude of fiscal policy measures, as well as the potential unintended consequences that can arise from government intervention in the economy. The effectiveness of fiscal policy in controlling the price level will depend on a variety of factors, including the state of the economy, the specific policy measures being implemented, and the broader political and social context in which those measures are being introduced.

CHAPTER 4

DISCUSSION OF FINDINGS

The research questions in this section were addressed using the Fiscal theory of the price level as a framework. The resulting findings were thoroughly evaluated which resulted in useful discussions and interpretations.

4.1 Causes of Ghana's Spiral Inflation

The COVID-19 pandemic and the war between Russia and Ukraine have had a major impact on the world's climate, with commodity prices, supply chain bottlenecks, withdrawal of monetary policy stimulus, and vulnerabilities related to rising debt. The global economic slowdown and low levels of international inflation contributed to a reduction in external inflationary pressures, but there were growing concerns about the crisis's economic effects. This has had an impact on Ghana's imports, exports, tax receipts, and foreign exchange earnings, leading to a downturn in economic activities. In the short- to medium-term, a sustained slowdown in exports had a detrimental impact on reserve accumulation and currency rate stability. Government revenue was also hampered by a reduction in imports.

Ghana's fiscal debt has been growing rapidly due to the government's need to engage in expensive projects. The Covid-19 and Russian-Ukraine war has worsened the country's predicament, but they are not the main causes. The Bank of Ghana has experienced a funding deficit due to revenue shortages, spending restrictions, a lack of access to the foreign capital market, auctions, and non-resident portfolio reversals. Inflation is a key predictor of the fiscal deficit component and financing that goes along with it, as higher prices enhance nominal GDP while holding other factors constant. Ghana's debt load increased significantly from 2017 to 2022 due to three key issues: the government's enormous debt from its power producers and suppliers, the Bank of Ghana launching a financial sector cleaning, and the COVID-19 epidemic having a significant impact on the Ghanaian economy. International credit rating agencies downgraded the country's economy, making it less appealing and limiting the government's capacity to raise cash in the global financial market.

4.2 Effects of Inflation in Ghana

The exchange rate is a measure of how much a currency is worth relative to other international trading currencies. Inflation and currency exchange rates are strongly correlated, with the Ghana Cedi losing more than 50% of its value versus the US dollar over the past year. Inflationary pressures gradually increased, raising the rate from 7.8% in March 2020 to 12.6%

by the end of 2021. The Ghana Cedi decreased by 1.5 % in value relative to the US dollar and has increased by 0.1 and 0.7 % in value relative to the British Pound and the Euro. Ghana is committed to long-term sustainable economic development and low inflation to enhance living standards and alleviate poverty.

High inflation and interest rates harmed the economy, causing a drop in private consumption and investment. Additionally, due to limited access to financial markets and the weight of large debt payment requirements, the government's demand was weakened. The cost-of-living crisis in Ghana is becoming unbearable for most Ghanaians as the majority struggle to cope with the soaring prices. The Ghana Statistical Service reported that the inflation rate surged to 54.1% in December 2022, driven by steep increases in food, transportation, and housing costs. Exchange rate depreciation and the sustainability of Ghana's debt have been a source of concern.

International credit rating agencies have lowered Ghana's creditworthiness, sending its ratings further down into junk territory. Interest rates and inflation rates have a positive relationship in Ghana, and both have had a substantial impact on the country's economic progress. The Bank of Ghana held its benchmark monetary policy rate steady at a record level of 29.5% during its May 2023 meeting, after raising it by 150 bps in March. This decision was driven by tight monetary policy and expectations that inflation will continue its downward trajectory as food prices are likely to ease over the harvest season.

4.3 The Specifics of The Government of Ghana’s Initiatives to Deal With The Issues Arising From The Economic Crisis.

The Ghanaian government is implementing more aggressive fiscal measures to address economic stabilization. The main initiative is the IMF extended credit facility, which will be backed by a new three-year Extended Credit Facility (ECF). In addition, the government has proposed three additional tax revenues, including the Income Tax, Excise Duty, and Growth and Sustainability Amendment Bills. Additionally, the Government of Ghana has launched the Domestic Debt Exchange Programme (DDEP) to restore healthy public finance and sustainable debt levels, as well as to jump-start economic development in the aftermath of the COVID-19 pandemic. Dr. Mahamadu Bawumia, Ghana's Vice President, discussed a new government strategy known as Gold for Oil (G4O) in December 2022.

The G4O program in 2023 has enabled the government to pay for imported oil products in gold, in direct exchange for gold acquired by the Bank of Ghana. Monetary policies have transitioned from direct instruments to a market-based approach, with a primary focus on controlling the money supply. The Monetary Policy Committee (MPC) decided to raise the Monetary Policy Rate by 150 basis points to 29.5 percent during the March 2023 meeting. In February 2023, the Expansion of the broad money supply (M2+) in Ghana was driven by a significant increase in the Net Domestic Assets (NDA) of depository corporations. The Bank of Ghana has adjusted the Cash Reserve Ratio on domestic currency deposits for banks, increasing it from 12% to 14 %, starting from April 2023. After reaching a more than two-decade inflation-rate high of 54.1% in December, Ghana's consumer inflation dropped for the fourth consecutive month in April, to 41.2% year on year.

4.4 Discussion of Findings

This study aimed to determine the primary factors contributing to inflation in Ghana since 2020. It found that fiscal debt is one of the major causes of inflation and that the ongoing Russia-Ukraine conflict and the COVID-19 pandemic significantly impact Ghana's economy. Additionally, external inflationary pressures such as demand, and supply dynamics, and their impact on commodity prices contribute to inflationary pressure. The study also revealed a positive correlation between the exchange rate and the rate of inflation in Ghana. This implies that an increase in the exchange rate, or the depreciation of the cedi, leads to higher costs for imported goods and services.

Additionally, as inflation increases, the purchasing power of the currency decreases, resulting in a currency exchange rate decline relative to other currencies. Finally, the study findings lead to the conclusion that Ghana faces significant challenges due to its substantial public debt and decelerating income growth, which hampers the government's ability to implement programs and policies effectively. The government of Ghana has secured a USD 3 billion loan facility to restore stability in macroeconomics and ensure sustainable management of debt, while also introducing comprehensive reforms to enhance resilience and establish the groundwork for robust and inclusive economic growth. However, the research findings of Aimola and Odhiambo (2021b) suggest that specific monetary policies, such as modifications to the money supply, inflation targeting, and adjustments to cash reserve ratios, have demonstrated positive outcomes in managing inflation in Ghana. The study recommends that while monetary policy plays a crucial role in controlling inflation, it should be complemented by fiscal and other non-monetary measures. This aligns with the conclusions drawn by Ahiabor (2013) and reinforces the significance of employing a multi-faceted approach to combat inflationary pressures.

4.5 Summary of Major Findings

The study was conducted to ascertain the relevant variables that have a significant relationship with inflation. The findings revealed that the main causes of Ghana's spiral inflation since 2020 are the Covid-19 Pandemic, the Russian-Ukraine war, Global inflation pressures, and Ghana's debt repayment. The effects of high inflation on the economy include rising fiscal debt, Balance of Payment deficit, Exchange rate appreciation, Cedi depreciation, and the downgrade of the economy. The Government is using fiscal policies such as the IMF Extended Credit Facility, the Domestic Debt Exchange Programme, the Imposition of Taxes, and the Gold for Oil Initiative. Additionally, the Government is using monetary policies such as increasing interest rates, reducing the money supply, tightening the monetary policy rate, and Resetting Cash Reserves.

The findings indicate that the domestic economy still faces relatively tight global financing conditions, emerging risks in the global financial system, and heightened uncertainty about the global economic outlook. The domestic debt exchange, new revenue measures, and structural fiscal reforms will provide significant reductions in debt service and help create fiscal space.

4.6 Conclusion

This study confirms the inflationary effects of public debt management in Ghana. It suggests that tighter fiscal policy with complementary monetary policy is the appropriate macroeconomic policy mix to curb inflation. The government should be prudent when considering increases in public debt to minimize volatility in inflation and its associated risks.

4.7 Policy Implications and Recommendations.

The findings are relevant for policy formulation and implementation. These include:

The Bank of Ghana's principal goal is to implement monetary and financial policies that foster price stability. To achieve this, the central bank should prioritize the reinforcement of its interbank foreign exchange market, adopt market transactions for determining the daily official exchange rate, discontinue the practice of acquiring foreign currency funding for priority sector imports, enforce its laws on foreign currency repatriation and transactions denominated in foreign currency, restore Cedi dominance in domestic transactions, limit dollarization, criminalize foreign currency trading, review import sector policies, maintain low inflation, and monitor the level of dollarization based on Bank of Ghana data.

Secondly, the government must improve revenue management by establishing realistic plans to assist the Ghana Revenue Authority (GRA) in combating tax evasion, tax avoidance, and corruption. To limit illegal money outflows, international tax cooperation must be improved, tax laws and regulations must be simplified, and current opportunities for tax evasion must be reduced through increased fairness and openness of the tax system.

Ghana faces several long-term economic growth challenges, including deficits, high energy costs, government debt, limited access to credit, high borrowing costs, low agricultural productivity, a restrictive business climate, and trade restrictions. To finance economic growth, Ghana must improve access to financing, establish an environment conducive to economic expansion, support private sector-led investment, promote inexpensive energy usage, include talented persons in economic and social development, and raise earnings. Furthermore, Ghana needs a national industrialization strategy based on its strong manufacturing sector with ties to agriculture. These actions have the potential to enhance the country's trade balance and government revenue.