Illustrating Cantillon Effects in the Ethiopian Context

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ECN 336-01

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February 1, 2024

Abstract

In recent years, there has been a historically large increase in the price level of goods and services as measured by the Consumer Price (CPI) in Ethiopia's economy. Economic theorists have discovered that when new fiat money and credit are introduced that price levels increase overall, but in an uneven fashion. This reality is an illustration of what are called Cantillon effects. This paper intends to describe the degree to which overall price levels are rising, and how the banking sector has benefited from this process. In order to describe how this theory is played out in Ethiopia in the 21st century, we will use a linear regression method that show how the money supply, remittance inflows, the index of economic freedom, and the population number relate to the changes in CPI and banking sector profits.

Introduction

Inflation is a major economic issue that a lot of countries face. It can be defined as the rate at which the prices of goods and services increase. It is basically the rise in the price of goods and services both nationally and globally. This rise in inflation rate affects the health of a country's economic growth remarkably to a significant extent. Mainly, it reduces the purchasing power of money significantly lowering the amount of goods and services purchased by a unit currency. This is because as the prices of goods and services rise, the amount of goods we often purchase using a dollar decreases, devaluating the currency. This eventually leads to a lot of factors that keep a certain country from growing. In the case of Ethiopia, inflation rate is definitely reducing the purchasing power of the currency– the Ethiopian Birr. It is also reducing the value of savings. As the prices of goods and services rise, some people start taking out their savings in order to make a purchase which leads to frustration and disappointment, discouraging individuals from saving and others are forced to take out loans from banks in order to finance their basic needs or to keep their business running. An Ethiopian reporter, Zerihun, summed up the financial crisis going on in Ethiopia saying " Everything is increasing except wages." One of the reasons for why the inflation rate is increasing is due to the fact that the rise in the prices of goods and services in Ethiopia is not in proportion with the amount of wage people get paid. There are various other factors contributing to the high inflation rate in Ethiopia. In this paper, we will go through a few of those factors to bring light on how these problems can be solved for the country's economic growth and for the people in Ethiopia to enjoy a stable cost of living.

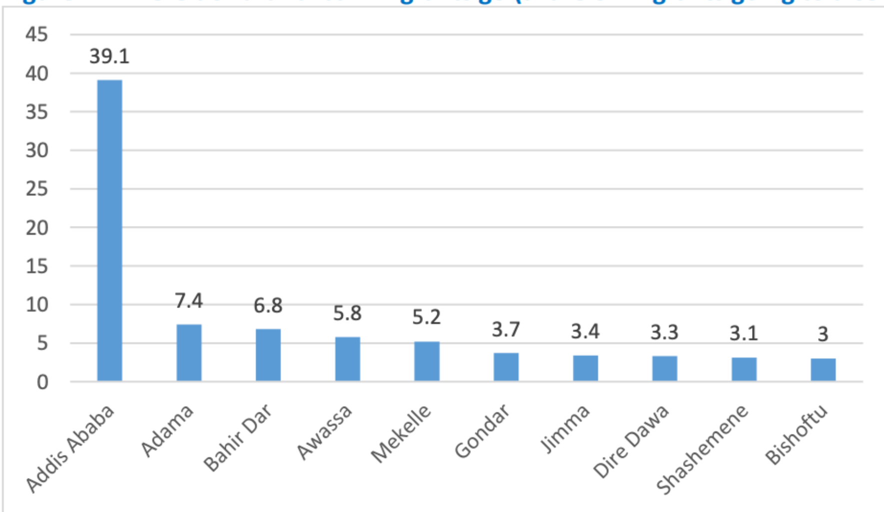
Factors driving the inflation rate in Ethiopia

The CPI in Ethiopia has been increasing since 1995 according to the data we found on FRED. There was even a time, 2010, that prices completely doubled which means the Country's CPI was 100%. Recently, it has grown from 221.02% in 2016 to 388.17% in 2020. That is a massive price increase in Ethiopia's economy. Smith when explaining the impact of the rising inflation rate in Ethiopia, he said, "The rising inflation rates in Ethiopia serve as a pressing economic challenge, impacting the cost of living and posing hurdles to sustainable development." Smith,J(2023). What is interesting is that, as the inflation rate increases, Banks' Profit Margin increases as well. As the CPI increased from 278.49% in 2018 to 659.22% in 2022, Banks' Profit Margin when measured in Index also went up from 191.3% in 2018 to 207.8% in 2022. This shows that banking sectors in Ethiopia are benefiting from the rise in the price level of goods and services. One of the main reasons for why banks' profit margin is increasing in a highly inflated environment is because people are more interested in having tangible assets like buildings and lands. Because the purchasing power of the money is declining, people want to purchase tangible assets as these kinds of assets don't lose, but gain more value through time. So, they go to banks and borrow money to purchase houses, buildings, and lands which eventually rises Banks' Net Profit Margin. However, not everyone in the country is eligible for a loan from banks. This is where the Canillon effect comes to play in Ethiopia's economy. There are requirements in order to borrow money from banks. It is challenging for the majority of the population including both middle and low class workers who are employees and who depend on their monthly incomes to borrow money from banks. Most of the time, it is those who are rich and those who run their own businesses that are eligible for a loan and that is how they get more wealth even in a downnfalling economy. In this highly inflated economy, those are a few people who seem unaffected by the increasing prices of goods and services. There are still people who involve in foreign transactions and purchase a lot of tangible assets when the majority is struggling to have a meal per day. This is the Cantillon Effect. The Cantillon Effect is simply the uneven distribution of money in an economy. The people who get the first money or those who are close to the money injection benefit more than the people who will get the money later. This leads to an increasing wealth inequality as the wealthy people get wealthier and the poor gets even worse. The article published by further Africa talks about how the majority of Ethiopian's still have no access to credit, mainly the very poor and those engaged in micro and small businesses. The people close to the money injection are the few people running their big macro businesses. They represent only a few percentage of the country's population, but are in control of a huge amount of money. In addition to that, the free market economy in Ethiopia allows business owners to control the prices of goods and services which eventually leads to a rising inflation rate. The rise in the inflation rate in the context of Ethiopia's economy is a result of various factors. Most importantly, it is a result of the social and political unrest that has been happening for the past few years, the rise in the population number within the capital city, Addis Ababa, the low foreign currency availability within the National Bank of Ethiopia (NBE) , and the money supply.

The population number in the capital city, Addis Ababa, plays an important role in increasing the inflation rate within the economy. As the number of people migrating from the rural area to Addis Ababa increases, it results in the shortage of goods and services available. This is because the quantity of available goods and services does not increase with the population number. The increase in the population number with the same amount of goods and services results in shortage which then forces suppliers to rise the prices of those goods and services since they are in a short supply. This is what is called Demand-Pull inflation, a type of inflation that occurs as the demand for goods and services among individuals exceeds the availability of resources in the market.

The population number in Addis Ababa in the past few years has grown from 4.8 million in 2020 to 5.2 million in 2022. This affects the growth of the economy in various ways. When describing the negative impact of the increase in the population number in Addis Ababa, it is stated in the World Economic Forum as "Addis Ababa is one of the fastest-growing cities in the world with a population that is expected to reach 10 million by 2030. This rapid growth is putting a strain on the city's infrastructure and resources and is creating a number of challenges for its residents."- World Economic Forum, 2023. Why are people migrating from the rural part of the country to the capital city? What is the reason for that? A study done by the World Bank, Tom Bundervoet, shows that Addis Ababa is the destination for most rural-urban migrants compared to other cities within the country. The bar graph below done by the World Bank shows the increasing migrant number within the capital city.

Figure 1. Where do rural-urban migrants go (share of migrants going to a certain city)?



Note: The figure only shows recent migrants (*individuals who moved less than five years prior to survey data collection). Based on the population aged 15 and over. Only the 10 main destination cities are shown. Source:* LFS, 2013.

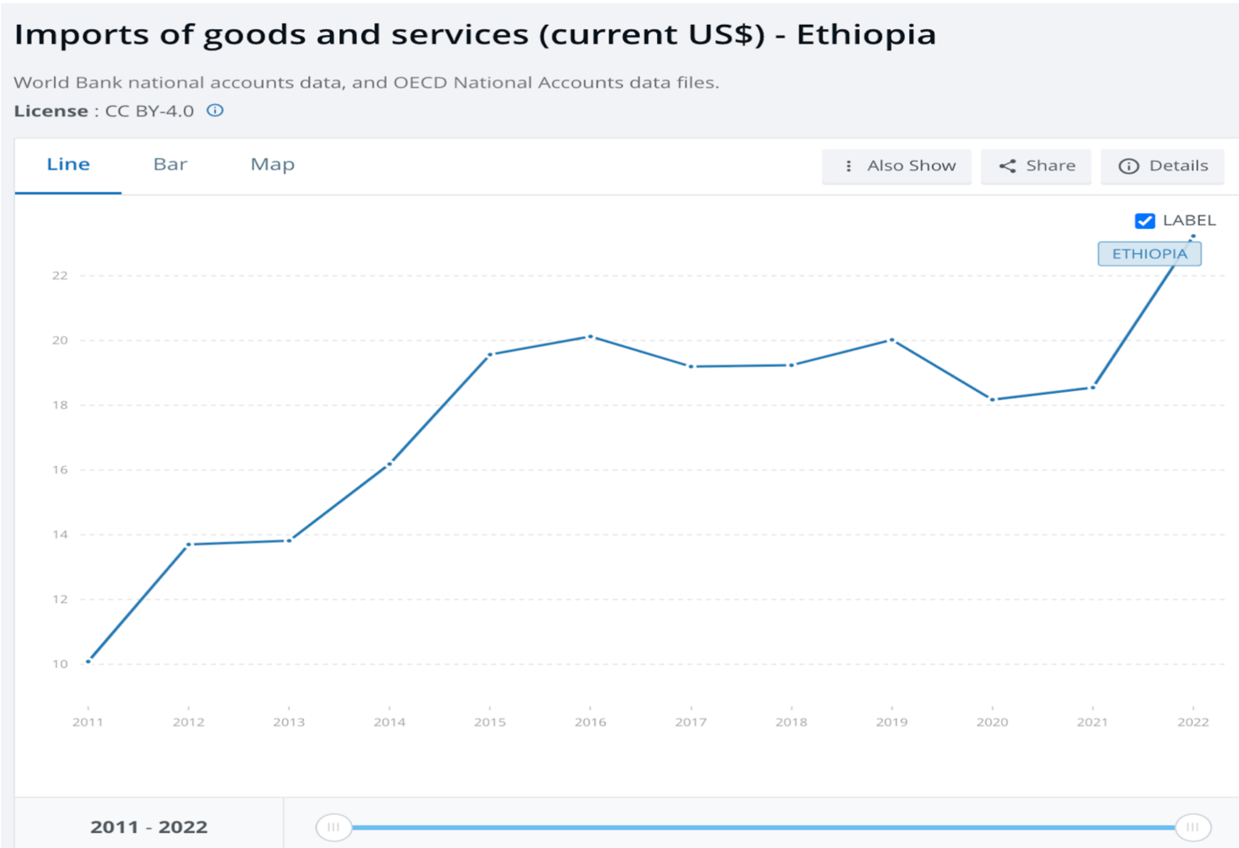
There are a lot of reasons for why people leave their city and come to the capital city. They migrate looking for better Economic opportunities, Quality education, Health care, and infrastructure in the capital city. Dr. Aschalew Abeje, an assistant professor of anthropology at bahir Dar University, published some important works in the area of migration. In one of his articles, he mentioned the food shortage resulting from landlessness and drought as principal factors for the rural-urban migration. Economic opportunities, Quality education, Better Health care, and Better infrastructure in the capital city. Due to these reasons, people migrate to the capital city which creates shortage and eventually leads to price inflation.

Remittance Inflow is also another factor that affects the increasing inflation rate in Ethiopia. It is one of the ways in which the country gains foreign currencies without trading with a foreign country. However, the remittance inflow to Ethiopia has been decreasing remarkably for the past few years. It went down from 1.68% in 2015 to 0.46% in 2020. That reduction in the remittance inflow to Ethiopia results in shortage of foreign currencies in the Commercial Bank of

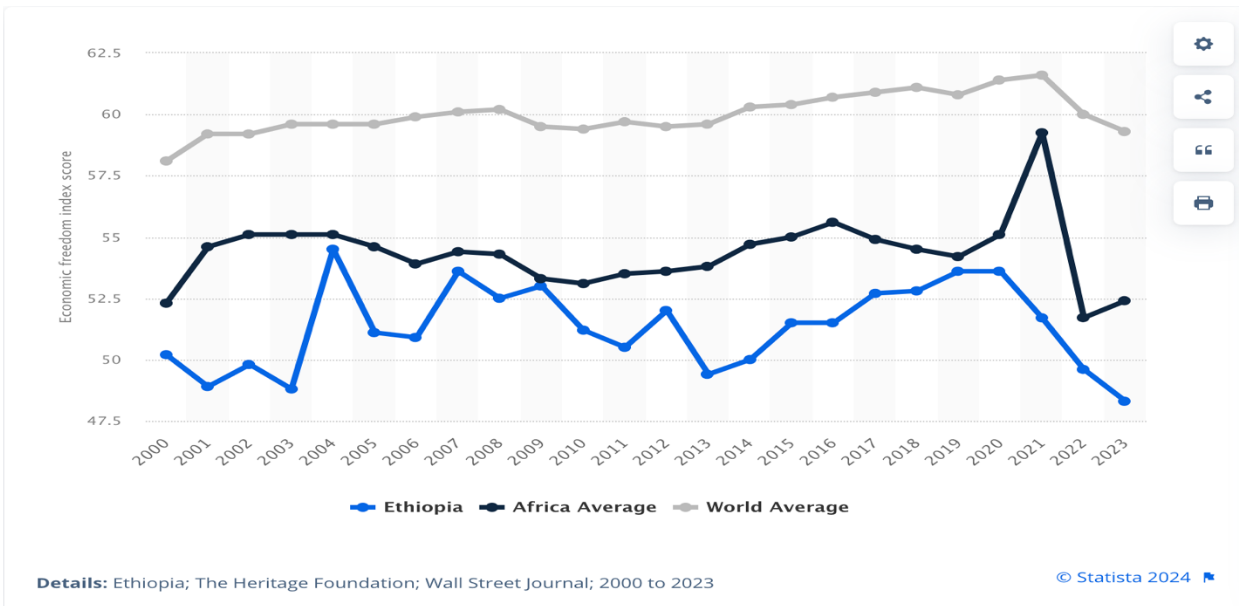
Ethiopia making it hard for the country to trade with foreign countries and eventually leading to scarcity of goods. What is the reason for the reduction of the remittance inflow to Ethiopia? Why is it decreasing so much? One of the main reasons for that is the presence of the parallel market which is often called The Black Market.

The exchange rate between the Ethiopian Birr and the U.S. Dollar through the Black Market is way more than the exchange rate through Banks. So, when people in the U.S. send money to their family members in Ethiopia, they prefer doing it through the Black Market than the Banks because they can send a few U.S. dollars through Black Market, and it will be delivered to their family members in Ethiopia multiplied by the high exchange rate. As of today, 1 U.S. dollar can be exchanged for 80 to 90 Ethiopian Birr on the Black market. So, people prefer to send money to their families overseas in a high exchange through the black Market. This action, however, does not help the economy of the country as it reduces the availability of foreign currencies in the Commercial Bank of Ethiopia.

The exchange rate between the Ethiopian Birr and the U.S. Dollar. Ethiopia is a country that imports various goods as machineries, mineral fuels, fertilizers, cereals and so on. In order to make these purchases, however, the country needs foreign currency- mainly the U.S. Dollar as it is the world's reserve currency. The problem is that Ethiopia is currently in shortage of the U.S. dollar due to the increasing exchange rate between these two currencies. The exchange rate has been increasing for the past several years. As of today, the exchange rate between the Ethiopian Birr (ETB) and the U.S. dollar (USD) is **1USD = 55.7 ETB.** Two years ago in 2020 it was 34.9 ETB. It immediately rose up making it hard for the Ethiopian government to afford U.S. dollars. The shortage of foreign currencies as the U.S. dollar in the Commercial Bank of Ethiopia affects the economy significantly. It makes it difficult for the country to import any types of goods. This leads to Cost-Pull inflation, a type of inflation that occurs when the cost of producing a specific good is high, leading suppliers to raise their prices to maintain their profit margins. Below is the graph that shows the increasing imports of goods and services in billion dollars.

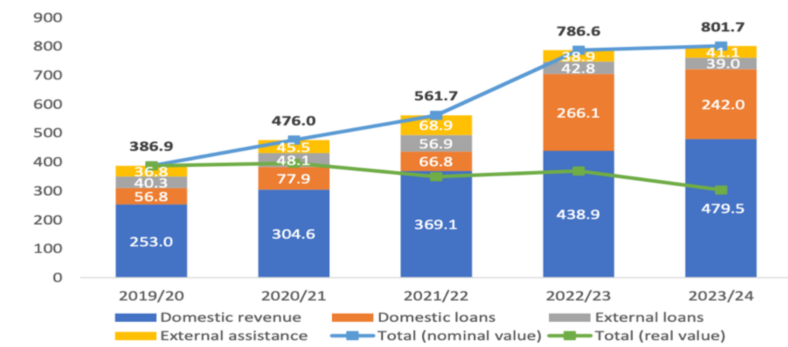


The other factor that affects the inflation rate of Ethiopia is the Economic Freedom. We measure the economic freedom of a certain country by its IEF which is the Index of Economic Freedom. This index tells us how free and safe it is for a country to trade both within the cities of the country itself and with foreign countries as well. In the case of Ethiopia's economy, the Index for Economic freedom of the country has been decreasing for the past several years. It reduced from 53.60% in 2020 to 49.60% in 2022.This is mainly due to the social unrest happening in Ethiopia. The war between the government of Ethiopia and the northern part of Ethiopia, Tigray, resulted in the blockage of roads making it difficult for trade to happen between the capital city, Addis Ababa, and Tigray. When explaining why the government of Ethiopia began an offense in Tigray, Declan Walsh, a reporter covering Africa for the New York Times, explained how T.P.L.F. forces attacked a federal military base in Tigray in what they called a pre-emptive strike against federal forces preparing to attack them from a neighboring region. This conflict impacts the economic growth of the country in general. Below is the graph showing the decreasing economic freedom in Ethiopia.



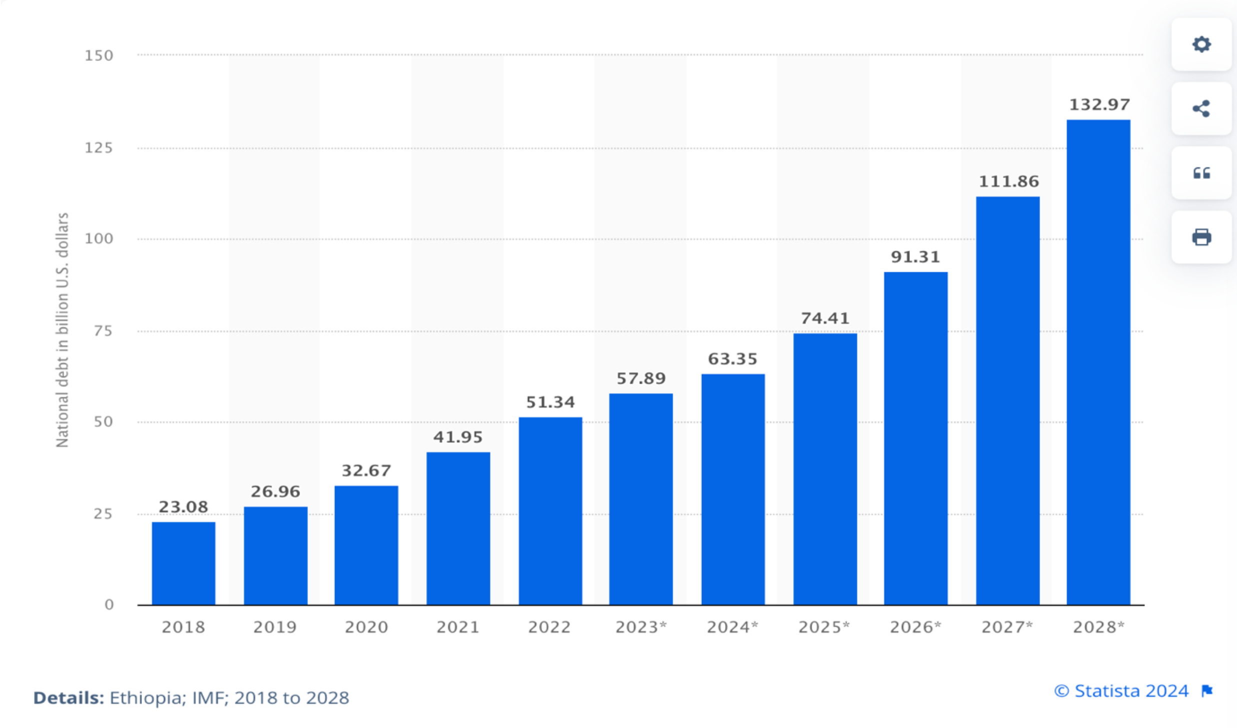
Banks' Net Profit Margin is still increasing regardless of the decrease in the economic freedom of the country. This is because of the government's consistent borrowing both from domestic lenders as private banks and external creditors in order to fund military operations. According to UNICEF, the federal budget is financed both from domestic and external sources. The paper also mentions that there is a predicted budget deficit of 281 billion ETB for the 23/24 fiscal year and that this deficit is planned to be covered through acquiring 242 billion ETB from domestic borrowing and 39 billion ETB form external sources.

Figure 1: Sources of finance for the federal budget, 2019/20–2023/24 (in billion ETB)

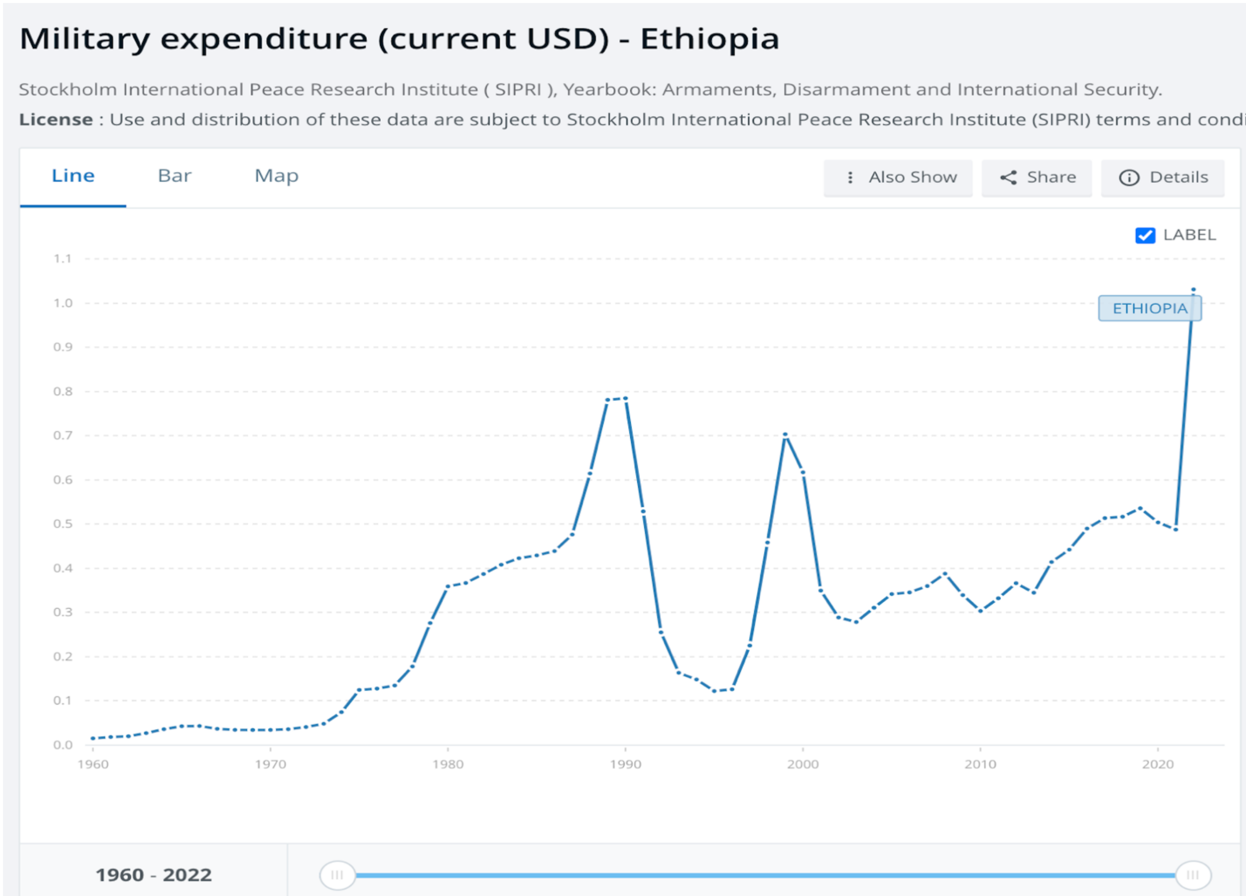


Source: Ministry of Finance (MoF)
Real values are calculated by the authors, with 2019/20 as the base year.

The above graph found on a study done by the UNICEF on the Highlights of the Federal Government Budget Proclamation shows that most of the fund to finance the government's budget deficit comes from domestic borrowing which explains why Banks' Net Profit margin has been increasing. According to the data found on Statista, Ethiopia's National Debt increased from 32.67 billion dollars in 2020 to 51.34 billion dollars in 2022. I have attached the graph to provide a clear understanding on how the government's national debt has been increasing.



The government's increasing military expenditure is the reason for why there is a huge budget deficit and leading to an increasing inflationary environment. Dr. Samar Bagouri when explaining how the war in Tigray is affecting Ethiopia's economy, she said "the soaring inflation rate can be attributed to the government's increasing military spending which caused a budget deficit." Due to the government's high investment in military operation, the country does not have enough money to invest on infrastructure, roads, schools, agricultural resources, and imported goods which results in a highly inflated economy. The graph below shows the increasing military spending of the government.



The money supply is the other variable that we have used to explain about the increasing inflation rate in Ethiopia's economy. Theoretically, the rise in the money supply in an economy results in an increasing inflation rate. However, that is not the case for Ethiopia. The inflation rate has been increasing regardless of the decrease in the money supply. How is this possible? Is this not contradictory to the economic theory that we all know? These are crucial questions one should be asking when noticing this kind of relationship between the money supply and the consumer price index in an economy. The increase in the money supply can result in an increasing inflation rate in a situation where all things are held equal. In the real world, however, we know that all things are not held equal. There are also other factors that contribute to the rise in the inflation rate of an economy. Yes, money supply can be a factor for an increasing inflation rate, but it is not the only determining factor which is currently the case for Ethiopia. Teshome (2011) when explaining the source of inflation and economic growth in Ethiopia, he stated, “What contributed to the high inflation within the country is increasing desire to spend.” He also said, “Inflation in Ethiopia is not a monetary phenomenon.” The increasing population number, the low foreign currency availability, and the decreasing economic freedom are the factors that are driving the inflation rate higher and higher– not the money supply. In addition to the inflation rate, Banks’ Profit Margin is also increasing regardless of the decrease in the money supply. This is because the decreasing money supply forces Banks to rise their interest rates on loans and tighten up the credit market. Because business owners are losing their business due to the social unrest and the population number is also increasing, people are willing to go to banks and take out loans at the interest rate they are told in order to finance their needs which eventually increases Banks’ Net Profit Margin.

Interpretation

Coefficient:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.811e+02	3.510e+02	0.801	0.4337
AAPOP	1.727e-04	1.423e-05	12.143	4.17e-10 ***

M2	-1.151e-01	9.123e-01	-0.126	0.9010
IEF	-1.295e+01	6.446e+00	-2.009	0.0598
REMINF	-2.150e+01	1.727e+01	-1.245	0.2292

Adjusted R-squared: 0.9123

As we can see in the table above, there is a positive relationship between the population number in Addis Ababa and the inflation rate within the country. This implies that as the number of populations in Ethiopia increases the inflation rate in the economy increases as well. For every 1 million increases in the population number in Addis Ababa, there is a 1.727e-04% increase in the inflation rate or CPI of Ethiopia.

The Remittance inflow to Ethiopia, however, has an inverse relationship with the inflation rate. This implies that as the remittance inflow to Ethiopia increases, the inflation rate within the country decreases. This makes sense because as the country has an increased amount of foreign currencies within banks, then it is easier to import products from foreign countries which increases the supply of goods and at the same time setting a fair price of goods and services. Numbers wise, for every 1% increase in the remittance inflow to Ethiopia, there is a 2.150e+01% decrease in the inflation rate in Ethiopia.

The Index of Economic Freedom also has a negative relationship with the inflation rate in Ethiopia. As the index for economic freedom increases, the the inflation rate in Ethiopia decreases. This makes sense because when there is freedom to trade within a country, goods can be produced in a good amount that can be enough for everyone, avoiding shortage and at the same time reducing unnecessary rise in the prices of goods and services. According to the R-studio output, for every 1% increase in the index of economic freedom, there is a 1.295e+01 % decrease in the inflation rate in Ethiopia.

The last variable is the money supply. The money supply is inversely related with the consumer price index. For every 1% increase in the money supply, there is a 1.151e-01% decrease in the inflation rate of the country. Usually, high inflation rate is the result of the high money circulation in an economy. However, that is not the case for Ethiopia, and it is because of the fact that money supply is not the only factor that drives inflation rate. In the real world, there are also various other factors that play a huge role in increasing the inflation rate in an economy. So, it is possible to live in an economy where there is a high inflation rate and a decreasing money supply.

Conclusion

In general, the increase in the inflation rate in Ethiopia is a major concern and it has been going on for the past several years. However, there has been a double increase in the prices of goods and services especially since 2018. The main goal of this paper is to analyze the causes and try to come up with a few suggestions on how to solve this problem that is affecting the economy of the country and the day-to-day life activities of the people living there. I would say that the government of Ethiopia has to take a measure regarding the parallel market within the economy which is usually referred to as " The Black Market." As long as the parallel market is present, the availability of foreign currencies within banking sectors will always be low which eventually makes imported products scarce and expensive. In addition to that, there should be peace and a measure has to be taken to stop the war and reduce the military expenditure of the government. That way, the government can use the money to build infrastructures, create job opportunities, and finance its debt.

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