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Department of Economics and Finance

**EFFECTS OF THE EXCHANGE RATE ON
TRADE IN SOMALIA (2001 -2022)**

Master Thesis

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

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SUMMARY

Four variables ER, IR, CS, and T are thoroughly examined in the summary, along with the relevant summary statistics. The distribution and properties of each variable are shown by these statistics. Notably, the distributions of CS and T are right-skewed with high kurtosis, IR shows negative values, ER has a high mean, and the Jarque-Bera test suggests a non-normal distribution. When stationarity is assessed using the Augmented Dickey-Fuller (ADF) unit root test, it is shown that ER stabilises following differencing. A lag of one is recommended by lag selection tests for the best model performance. Co-integration analysis, which is essential in macroeconomic research, examines long-term relationships between variables. Stability at initial difference is validated by ARDL analysis, bolstering co-integration. The long-term ARDL data indicate that T and ER have strong negative relationships, whereas IR and CS have inconclusive effects. The dependent variable is impacted by changes in T, IR, CS, and ER in the near term. The error correction term indicates a significant adjustment towards long-run equilibrium. Positive correlations between ER and IR and moderate correlations between CS and T are found by correlation analysis. There are negative correlations between ER and T, ER and CS, and IR and T, which suggests that these variables are not all that dependent on one another.

Key Words: Interest Rate, Exchange Rate, Consumer Spending and Trading Volume.

ÖZET

Dört değişken olan ER, IR, CS ve T, ilgili özet istatistikleri ile birlikte detaylı bir şekilde incelenmiştir. Bu istatistikler, her bir değişkenin dağılımını ve özelliklerini göstermektedir. Özellikle, CS ve T'nin dağılımları yüksek kurtosis ile sağa çarpıkken, IR negatif değerler gösterirken, ER yüksek bir ortalama değere sahiptir ve Jarque-Bera testi normal olmayan bir dağılımı önermektedir. Augmented Dickey-Fuller (ADF) birim kök testi kullanılarak stationarity değerlendirildiğinde, ER'ın fark alma işleminden sonra stabilize olduğu gösterilmiştir. En iyi model performansı için lag seçim testleri bir adet gecikmenin önerildiğini göstermektedir. Makroekonomik araştırmalarda önemli olan co-integration analizi, değişkenler arasındaki uzun vadeli ilişkileri incelemektedir. ARDL analizi, başlangıç farkında istikrarı doğrulayarak co-integration'ı desteklemektedir. Uzun vadeli ARDL verileri, T ve ER'ın güçlü negatif ilişkilere sahip olduğunu gösterirken, IR ve CS'nin etkileri belirsizdir. Bağımlı değişken, yakın vadede T, IR, CS ve ER'daki değişikliklerden etkilenmektedir. Hata düzeltme terimi, uzun vadeli dengeye doğru önemli bir düzeltmeyi göstermektedir. Korelasyon analizi, ER ve IR arasında pozitif korelasyonlar ve CS ile T arasında orta düzeyde korelasyonlar bulmuştur. ER ve T, ER ve CS, IR ve T arasında negatif korelasyonlar bulunmaktadır, bu da bu değişkenlerin birbirlerine çok bağımlı olmadığını göstermektedir.

Anahtar kelimeler: Faiz Oranı, Döviz Kuru, Tüketici Harcamaları ve İşlem Hacmi.

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ABBREVIATIONS

IR	:	Interest rate
T	:	Trade
ER	:	Exchange rate
CS	:	Consumer spending
ADF	:	Augmented Dickey Fuller
ARDL	:	Auto Regressive Distributive Lag
ECM	:	Error Correction Model
CUSUM	:	Cumulative Sum of Square
FMOL	:	Fully Modified Ordinary Least
PP	:	Phillips Peron
LER	:	Log of Exchange Rate
LIR	:	Log of Interest rate
LCS	:	Log of consumer spending
LT	:	Log of trade
DOLS	:	Dynamic least squares

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PREFACE

First and foremost, I would want to express my gratitude to Allah, the Almighty, for showering me with his blessings as I worked on my studies. I would like to thank Assoc. Prof. Dr. Lokman KANTAR, my adviser, in particular, for all of his help and guidance throughout the course of this research. The Economics and Finance Department at Gelişim University, as well as all the people who work there, let me finish my master's degree and work on my thesis, and I want to thank them all.

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INTRODUCTION

Before March 1973, most countries have been using the fixed exchange rate system. They pegged their domestic currency against the U.S. dollar. However, when the currency of the United States (U.S.) had devalued in February 1973, it caused and accelerated the collapse of the Bretton Woods system. Consequently, the countries moved to a floating exchange rate regime, whereby the supply and demand were the natural forces that determined the exchange rate price.

Following the adoption of the floating exchange rate system, developing countries, particularly Sub-Saharan African countries (SSA), experienced macroeconomic problems such as exchange rate fluctuations, worsening trade deficit, and also falling output growth. that created serious concerns for the policy makers (Danquah, 2008). In this period, the exchange rate for many SSA countries started to fluctuate, and the knowledge of the policy makers for these countries were limited to address the exchange rate fluctuations. Consequently, this lack of knowledge of the policymakers resulted in designing inappropriate monetary and fiscal policies which increased the exchange rate fluctuations and also worsened the trade deficit.

In 1983, the Structural Adjustment Programme (SAP) were introduced to help developing countries. Most of the SSA countries accepted the International Monetary Fund (IMF) and World Bank loan conditions to reduce the growing trade deficit and the exchange rate fluctuations. Throughout the process of reforms, economic policies implemented include exchange rate reforms, trade liberalization and financial market reforms.

CHAPTER ONE

OVERVIEW

The first chapter serves as the reader's entrance point into the research journey, providing a comprehensive explanation of the study's scope, objectives, and significance. It begins by explaining the study topic and its context, then moves on to highlight the key concerns and difficulties that are motivating the research. The objectives and questions for the study are thoroughly defined, providing a foundation for the whole endeavour. This chapter also provides an outline of the framework of the thesis or research paper, guiding the reader through the subsequent chapters and the logical progression of the study. The objective of the first chapter is to pique the reader's interest, convey the significance of the research, and lay the framework for subsequent analysis of the chosen topic

1.1. Background of the Study

The East African shilling has been the currency of various parts of Somalia since 1921, when it was introduced into the former British protectorate of Somaliland. Following the merging of British Somaliland and Italian Somaliland in 1960, its distinct currencies, the East African shilling and the (equally valued) Somali, were replaced at par by the Somali shilling in 1962. Its sects are known by a hundred different names. On October 15, 1962, the Banca Nazionale Somala (National Bank of Somalia) issued notes in denominations of 5, 10, 20, and 100 scellini/ shillings. In 1975, Bankiga Qaranka Soomaaliyeed (Somali National Bank) released notes in denominations of 5, 10, 20, and 100 shillings. In 1978, Bankiga Dhexe Ee Somalia (Somali Central Bank) issued banknotes of the same value. The 50-shilling note was issued in 1983, followed by the 500-shilling note in 1989 and the 1,000-shilling note in 1990. In 1990, an attempt was made to alter the currency from 100 to 1, with new banknotes in denominations of 20 and 50 shillings. Prepare for the denomination shift.

Without a doubt, the main reason piracy became a safe sanctuary for Somalia's coast was the absence of a central authority. It is crucial to draw attention to the primary causes of Somalia's collapse, from the civil administration to the present political circumstances. The internal and external reasons of these shortcomings have

led to the ongoing breakdown and destruction of the Somali state (Samatar et al, 2009). During the Cold War, the first Somali administration, which was established in 1960 and lasted until 1967, was referred to as civic. Although the US was not happy with the Soviet Union's military backing for Somalia, this administration maintained its neutrality towards both East and West conflicts. The Somalian administration changed throughout 1967 and 1969 to become more pro-Western. This resulted in a military coup orchestrated by Russia (Samatar et al., 2009). Furthermore, the civilian administration was shown to be corrupt and ineffective, and it was unable to establish a political culture at all on a national level (Roberg, 2003).

In 1960, the British Protectorate of Somaliland and the Italian colony of Somalia merged to become the Somalia Republic (Brook, 2012). Nevertheless, The political elite's desire for unity brought British Somaliland, which was founded on clan representation under the colonial authority, and southern Somalia together despite being under trust territory (Edeko, Sunday E, 2011P:22). The Italian colony of Somalia and the Somaliland protectorate had distinct legal systems, currencies, organisational structures, and terms of service for the police, army, and civil service. The central and local government institutions have distinct organisational structures and authorities (Edeko, Sunday E, 2011P:22). When Somaliland was just establishing its state, it faced political isolation. Furthermore, southern dominance was evident in the first state construction when southerners were appointed to every important political office, including those of president, prime minister, foreign minister, interior minister, head of state police, and head of state military. Due to this, the majority of the districts of Somaliland, as opposed to the regions of Somalia, mainly rejected the constitution in a referendum conducted on June 20, 1961, one year after the country's unification (Walls 2009).

The people of Somaliland believed that the constitution was disregarded. This also prompted the young military commander with British training to try a coup (Walls, 2009). "Clan party politics" characterised Somalia between 1960 and 1969 (Brooks, 2012 P:2).

Based on a common Somali language and unique ethnic culture, Somalia was previously regarded as one of Africa's rare true nation-states. The flag of Somalia had

five stars on it, representing the "lost" Somalis in Kenya, Ethiopia, and Djibouti who were left out in 1960 after independence resulted in the union of British Somaliland and the UN trust territory under Italian administration. This was the reason why Ethiopia was attacked in 1977–1978 by Siyyad Barre's regime (1969–91). Still, in 1991, there were forty different armed factions stationed in Mogadishu, the capital of Somalia, most of them were clan-based.³ Not long ago, in an attempt to quell unrest in the north, the collapsing state murdered fifty thousand Somalis. ⁴ In 2002, Mogadishu's closest equivalent of a central government was a shaky administration that a tiny portion of the city as a consequence of drawn-out talks in neighbouring Djibouti.

The democratically elected leader Abdirashid Ali Sharmarke was overthrown by General Siad Barre's military forces in 1969 when he was killed by one of his security guards while visiting the drought-stricken Las Anod District (Northern Somalia) (Mohamed, 2009). The regime made an attempt to instill a feeling of nationality by "reclaiming" the adjacent, culturally distinctive Somali lands, hoping to stem the flow of discontent. The subsequent conflict and Ethiopia's defeat over control of the Ogaden, which was administered by Ethiopia but was home to ethnic Somalis, actually accelerated the fall of the Barre regime. In the middle of the 1980s, foreign aid accounted for 58% of Somalia's GDP (UNDP, 1998, p. 57). More than 70% of the state's operational budget was supported by foreign aid (Mubarik, 1996). Prior to the collapse of the central government, this foreign aid financed nearly the whole budget for education in Somalia (UNDP, 2001, p 120). During the last ten years of this regime, the military and administration accounted for 90% of all state recurrent expenditures, while social and economic services accounted for less than 1% of GDP (Mubarik, 1997). This infamous regime was known for its cruelty and corruption. Senior state leaders had engaged in the rapacious murder of individuals without cause, embezzlement of public funds, and looting of state-owned businesses.

Traditionally, Somalia's pastoral culture has relied more on unofficial economic coordinating than official laws. For instance, over many centuries, tribes have bargained for access to meadows and water. As a result, the economy has become robust and adaptable, with the ability to self-organize in response to shifting circumstances. Traditional social systems continued to support economic activity even

after the official state was overthrown. As the public sector collapsed, a power vacuum was created, which was quickly filled by the private sector. Traditional clan finance arrangements encouraged entrepreneurship and free market activity, which flourished in an environment with no regulation or taxation. Investment funds for commercial endeavours were also supplied by the sizable Somali diaspora's remittances. A more profit-retaining public bureaucracy was absent, which allowed for more profit retention. The economy of Somalia, which is mostly pastoral and agrarian, does not rely on intricate contemporary infrastructure. Production of crops and cattle for local commerce and sustenance is the main driver of economic activity. As a result, it may operate very independently of centralised governmental organisations that offer cutting-edge banking, transportation, and communication systems, among other services. This increased the likelihood of the shift to statelessness. The Somali economy has shown that, with conventional social coordination and the "invisible hand" of the pricing mechanism, an economy may thrive even in the absence of official governmental structures. He does concede, though, that in the absence of state support, many public goods like ports and highways continued to degrade. However, the Somali example offers an intriguing illustration of a robust, self-organizing stateless economy that draws on native customs and inventively adjusts to a globalised environment. It offers opportunities for decentralised government, which is prohibited by both centralised states and pure libertarianism. Both social scientists and policymakers should investigate the Somali experience deeper.

Somalia's monetary system is complicated and difficult to understand, with no official interest rate set by the Central Bank of Somalia (CBS). This is due, in part, to the country's long history of war and insecurity, which has resulted in widespread dollarization and mistrust of the Somali shilling. Somalia's financial sector is quite limited, with only a few commercial banks in existence. Because banks charge higher premiums to borrowers to offset the risk of failing to repay depositors, a lack of liquidity can lead to higher interest rates. The perceived risk of financing Somali enterprises and people also influences interest rates. Somalia is a volatile country with high levels of poverty and unemployment. Lenders may charge higher interest rates to compensate for the increased risk as a result of this difficulty in determining a borrower's creditworthiness. The credit demands of firms and individuals can

influence interest rates. When loan demand is high, lenders can charge higher interest rates. Somalia's interest rates are often high, reflecting the country's weak economic situation.

Consumer spending accounts for more than 70% of Somali GDP and is the primary driver of the Somali economy. Consumer spending in Somalia, on the other hand, is impeded by a number of factors, including: Somalia's annual per capita income is little more than \$600. As a result, the vast majority of Somalis have little disposable income to spend on goods and services. Somalia has a high unemployment rate of more than 60%. This suggests that many Somalis are unable to earn a living and, as a result, do not have money to spend. In Somalia, inflation is a constant worry, with product and service prices rising rapidly in recent years. This has eroded the purchasing power of Somali clients, making it more difficult for them to get basic necessities. Somalia's financial system is advanced. The financial system is underdeveloped, and only a small percentage of the population has access to formal banking services. This makes it harder for Somali clients to borrow money to make purchases. Despite these challenges, consumer spending in Somalia has increased in recent years as a result of the country's fast economic and demographic growth. However, the rate of increase in consumer spending is uneven, with the rich collecting the most of the benefits. Economic Update for Somalia (World Bank, October 2023).

Trade is an important part of the Somali economy, accounting for more than 20% of GDP. Somalia is a net importer of goods and services, with imports exceeding exports. However, commerce has grown in recent years as a result of strong economic growth and population growth. Somalia's main exports include livestock, fish, and bananas. Among the most major imports are food, petrol, and machinery. Somalia's main business partners are Kenya, Ethiopia, the United Arab Emirates, and China. Somalia's infrastructure is deplorable, with subpar roads, ports, and airports. This makes product and service transportation difficult and expensive. Somalia's past is rife with insecurity and conflict.

This uncertainty has made business and trade more difficult, as well as deterred overseas investment. Corruption is a serious problem in Somalia. This might make it more difficult to do business. Living in the country is difficult and expensive. Despite

these challenges, trade remains an important driver of economic growth in Somalia. The Somali government has taken a number of initiatives to increase business, including decreased customs tariffs, streamlined customs processes, and improved infrastructure (Somali Economic Update, October 2023).

After conducting a series of preliminary investigations, which included the Engle and Granger two-step cointegration procedure and the Augmented Dickey Fuller (ADF) test for stationarity, Omorokunwa and Ikponmwosa (2014) used time series data spanning 31 years to investigate Exchange Rate Volatility and Foreign Private Investment in Nigeria. They contended that exchange rate volatility has a strong positive effect in the long run but a weak effect in the short run on foreign portfolio investment. It was suggested that arbiters' long-term actions in the foreign currency market were the cause of this connection pattern.

1.2. Corporative Intensive and Interest Rate

Since Somalia lacks official banking and financial rules, private agreements and informal procedures are used by corporations to set interest rates and provide incentives, rather than government policy. Somali enterprises use Islamic financing instruments, remittance flows, family and clan ties to get funds and determine loan conditions; interest rates are frequently set at the whim of lenders rather than according to industry standards. The industry is dominated by sharia-compliant finance, which forbids *riba* (interest) but permits profits through business alliances. Alternative financing arrangements that are often used include *musharaka* (joint venture profit/loss sharing), where lenders take a cut of earnings, and *murabaha* (cost-plus financing), where they charge administrative costs. Despite the volatility of the nation, interest rates would theoretically eventually stabilise at levels that would attract international investment; yet, the majority of significant Somali firms rely on mostly on internal funding sources stockholders and retained earnings rather than borrowing money from outside sources. In cases where interest-bearing debt does arise, rates and incentives are set by opaque private discussions rather than by open public markets, which lessens external competition. Consequently, interest rates are either avoided or set by personal relationships on a case-by-case basis outside of market pressures in corporate financing, which is primarily facilitated by Islamic instruments or clan processes.

1.3. Interest Rate Influencing Internal and External Indicators

Due to the absence of centralised monetary authority and governance, Somalia lacks systematic mechanisms and reliable data for internal indicators like GDP growth rates, market liquidity, and inflation that would typically affect interest rates in a standard economy. These factors cannot be taken into account when making financial decisions. Instead, interest rates associated with private credit agreements often track outside metrics pertaining to Somalia's capital financing sources. For example, patterns in the worldwide hawala money transfer rates the means by which the Somali diaspora transfers money home can influence the accessibility of foreign capital inflows, which in turn affects the availability of loans. Lender risk calculations are impacted by the purchasing power of external money after it is converted into Somali shillings, which is determined by the same currency black market dynamics that determine foreign exchange premiums. even international development Support for small enterprises in Somalia has the potential to change nominal loan rates and perceptions of the profitability of investments. However, these external capital supply indicators have greater influence than internal economic performance indicators in setting the informal interest rates set by lenders negotiating private business loans in Somalia's stateless financial system due to the lack of public data and institutional connectedness.

1.4. Principle Export Goods

Somalia's economy relies heavily on exports of livestock and agricultural goods due to its arid climate and terrain that is conducive to raising animals and limited crop production. The majority of Somalia's exports are comprised of camels, cattle, goats, and sheep which are sold live and shipped primarily to Saudi Arabia, Yemen, Oman and other Gulf states. Exports of fish and seafood products like tuna, lobster and shrimp also bring trade revenue, with shipments going to Yemen, United Arab Emirates, Italy and Asian markets. Rounding out key exports are bananas, largely grown along the Juba and Shabelle Rivers and trucked overland to neighboring Kenya and other countries, as well as small amounts of myrrh, frankincense and, regrettably, charcoal. Overall, livestock alone is estimated to account for 60-75% of the total value of all merchandise exports from Somalia annually. Agricultural goods like fish and bananas make up an additional 15-20% according to reports, signifying these products'

outsized importance for generating foreign currency and jobs in the Somali economy in the absence of more diverse domestic industries.

1.5. Problem Statements

Understanding and controlling the intricate interconnections between currency rates, interest rates, and consumer spending, as well as their combined influence on commerce, is the difficulty in Somalia. Given Somalia's complicated economic setting, which is marked by political insecurity, weak financial institutions, and reliance on informal economic activity, there is a need to investigate exchange rate volatility. How exchange rates and interest rates, which are controlled by external and internal variables, have a direct impact on consumer purchasing habits and, as a result, corporate incentive.

This research seeks to answer the broad issue of how these interconnected variables impact trade balance, while also analysing the problems and possibilities that result from this unique economic situation. Consider the possibility for government policies and initiatives to foster a more stable and sustainable business environment at the same time in Somalia. Because of its unstable political system, deficient financial system, and reliance on black market activity, Somalia presents particular difficulties in comprehending and managing the complex relationships between interest rates, currency rates, and consumer spending. The purpose of this study is to examine the intricate link that exists between interest rates, currency rates, and consumer buying patterns and how these factors affect business incentives in Somalia. We will also examine the ways in which these interrelated factors affect the trade balance and evaluate the possibilities for government programmes and policies to promote a more secure and long-lasting business climate.

1.6. Hypothesis

The hypothesis of the study are as flows:

- ❖ **H₁:** There is a relationship between exchange rates and trade.
- ❖ **H₂:** There is a relationship between interest rates and trade.
- ❖ **H₃:** There is a relationship between consumer spending and trade.

1.7. Research Objectives

The main objectives of the study the Effects of Exchange Rate on Trade in Somalia.

Specific objectives of the study are as follows:

- To find the impact of exchange rate on trade in Somalia.
- To investigate the shock of interest rate on trade in Somalia.
- To inspect the brunt of consumer spending on trade in Somalia.

1.8. Research Questions

Research questions are as follows:

- What is the impact of exchange rate fluctuations on trade in Somalia?
- How do changes in interest rates affect trade dynamics in Somalia?
- What is the influence of consumer spending on trade in Somalia?

1.9. Research Questions

The significance of this study rests in its potential to offer insight on the intricate relationships between currency rates, interest rates, and consumer spending, as well as their aggregate effect on trade dynamics in Somalia. Understanding these linkages is critical, given the country's specific economic issues, such as political instability and reliance on informal economic activity. This study can give significant insights for policymakers, firms, and investors by demonstrating the influence of exchange rate movements, interest rates, and consumer spending on trade. Finally, this research has the potential to contribute to the establishment of policies in Somalia that promote economic stability, increase company performance, and encourage long-term economic growth.

1.10. Future Directions

In the future, it is critical to do detailed empirical analyses to quantify the impact of exchange rate volatility, interest rate shocks, and consumer spending on trade in Somalia. These surveys can include both time series and cross-sectional data, which allows for a better understanding of correlations and the building of prediction models. Furthermore, study into the impact of governmental interventions such as exchange rate stabilisation and interest rate management schemes is required to give particular

insights for boosting corporate efficiency. In Somalia's dynamic economic setting, collaborative activities combining local and international organisations can facilitate data gathering and boost research rigour. Finally, future research should concentrate on practical applications, assisting both the government and the private sector in navigating the complicated landscape of international trade. Trade in Somalia is encouraged, as is long-term economic progress.

1.11. Limitations of the Study

Limitations of the study are as follows:

- Due to the shortage of the time we cannot find or investigate the other determinants Somalia stock exchange.
- That pivotal circumstance i was not able to gather the information for the other determinant of consider such as, expansion, financial development etc.
- To my desire, to elaborate the more and more variable of those pandemic but due to financial problems i was not finding the other variable of the study.
- Due to financial cause and more time consuming I was taking the whole trading volume of the stock nor a single sector because it takes too much time and sometime some sector are not providing data due to some restrictions.
- Due to some restrictions a single sector is not providing data to use for own purpose due to company policy and that's the reason I mark whole stock exchange not a single sector of the Somalia stock exchange.

CHAPTER TWO

LITERATURE REVIEW

The Literature Review chapter examines current scholarly publications and research relevant to the study's objectives. It begins by stressing the theoretical framework and key principles that underpin the research, providing context for future research. This chapter evaluates and synthesises significant research on currency rates, interest rates, and consumer spending in the context of international trade. It dives into the many theories and empirical studies that have been undertaken to study the relationship between these traits and entrepreneurial dynamics. The chapter concludes by pointing out the gaps in previous research that this study attempts to remedy.

2.1. Theoretical Review

The authors of the article titled "Do the global oil price shocks affect Somalia's unregulated exchange rate volatility?" are Nor, M. I., and Masron, T. A. The publication year is 2018. The study aims to investigate the impact of global oil price shocks on the unregulated exchange rate volatility in Somalia. The dependent variable is the unregulated exchange rate volatility, while the independent variable of interest is the global oil price shocks. The authors employ a quantitative methodology, likely using econometric models or statistical analysis, to examine the relationship between these variables. The conclusion of the study, as suggested by the title, likely discusses the findings regarding whether and to what extent global oil price shocks influence the unregulated exchange rate volatility in Somalia.

Hassan, F. M. authored a paper in 2019 titled "The Effect of Monetary Policy on Currency Value in Somalia." The primary objectives of the study were to investigate the impact of monetary policy on the currency value in the Somali context. The dependent variable in this research was the currency value, while the independent variable was monetary policy. The study likely employed a quantitative research methodology, possibly utilizing statistical models and data analysis to assess the relationship between monetary policy measures and changes in currency value. The conclusion of the paper would have provided insights into the findings of the research,

shedding light on whether monetary policy had a significant effect on the value of the currency in Somalia, and any implications or recommendations based on the results.

The dependent variable in the article titled macroeconomic fundamentals and exchange rate fluctuations: Experimental evidence from Somalia by (Nor, M. I., Masron, T. A et al., 2020) is exchange rate volatility. Macroeconomic fundamentals such as inflation rate, GDP growth, trade balance, government policies, and foreign direct investment can be considered independent variables. The study's goal is to look at the link between these macroeconomic variables and Somalia's exchange rate swings. The study's data period, data sources, and procedures were not mentioned in the material supplied. The study's precise findings will most likely determine if and where macroeconomic factors influence exchange rate changes in the Somali setting. Which level?

The dependent variable in the paper "The impact of exchange rate fluctuations on economic growth in Somalia" by Abdinur, M. A. and ELMAS, B. (2022) is economic growth, while the independent variable is exchange rate fluctuation. The study's goal is to assess the influence of currency changes on Somalia's economic growth. Unfortunately, the existing material does not include precise data periods, data sources, techniques, or findings. Based on the data and methods utilised, the conclusion will most likely be based on the findings of the study, which will reveal if exchange rate variations have a major positive or negative influence on Somalia's economic growth.

The data source for the study Determinants of trade balance in somalia regression analysis using time series data by (Sharif, M. N. and Ali, A. Y. S. 2016) is time series data. Regression analysis is part of this strategy. Somalia's trade balance is the dependent variable, whereas the independent variables are not clearly specified but often include elements such as the exchange rate, GDP, inflation, government policies, and volume commerce. The study's goal is to discover and analyse the causes of Somalia's trade balance. The data period is not specified in the accessible material, nor is precise findings. The study's conclusion will most likely be determined by the findings of the regression analysis, which may offer insight on the variables

influencing Somalia's commerce during the specified time period, maintain a state of equilibrium.

The dependent variable in (Ali, Y. S et al.,2017) article titled the impact of exchange rate fluctuations on foreign direct investment: Evidence from Somalia is foreign direct investment (FDI), while the independent variable is exchange rate change. The study's goal is to investigate the link between exchange rate fluctuations and FDI in Somalia. The information supplied does not specify the data period, data source, or technique. The study's conclusion will be based on its findings, which may suggest if exchange rate fluctuations have a major influence on FDI in the Somali environment.

Somalia's trade balance is the dependent variable in (Sabrie, H. O,2023)' research major variables impacting the trade balance, Somalia Empirical Evidence. Although not explicitly stated in the data, independent variables usually include exchange rates, GDP, inflation, government policies, and trade volume. The study's purpose is to identify and test the major factors influencing Somalia's trade balance. The methodology and conclusions are not mentioned in the available material, but they will be based on the empirical information provided in the study, which highlights the major determinants influencing Somalia's trade balance.

The influence of actual exchange rate risk (the independent variable) on trade volume (the dependent variable) was investigated in (Cushman's 1983) article. Using cross-sectional regression with control variables, he discovers that actual exchange rate risk has a considerable negative influence on trade volume. It comes to the conclusion that real exchange rate risk is a serious impediment to international commerce and that authorities should take action to alleviate it.

In (Baldwin & Krugman's 1989) study, the persistent trade effects of large exchange rate shocks, the dependent variable might be trade volume or structure, whereas the independent variable is the shock's great exchange rate. The goal of this study is to investigate the long-term or persistent consequences of large exchange rate shocks on international trade. The technique of the study is not specified in the materials provided, however it may comprise examining historical data and doing empirical research. The study's conclusions will elaborate on the data, possibly

showing if big shocks to exchange rates have long-term effects on trade, shedding light on the adjustment processes.,following a big fluctuation in currency exchange rates trading.

The dependent variables in (Brox's, 2003) research titled the impact of free trade with the United States on the spending and savings structure of Canadian consumers might include consumption and spending habits of Canadians saving. Changes caused by free trade with the United States are the independent variables. The study's goal is to look at how the adoption of free trade agreements with the United States has influenced Canadian consumers' spending and saving habits. The material supplied does not go into detail on the precise procedures and strategies employed in the study. The study's conclusions will be derived from its data, and they have the ability to indicate if free trade with the United States has a substantial influence on the spending and saving habits of its participants Customers in Canada, ranging from this adds to a better understanding of how trade agreements affect a country's economy and households.

The dependent variable in (Teka and Azeze's 2002) research titled cross-border trade and food security in the border areas between Ethiopia, Djibouti, and Ethiopia-Somalia is food security, whereas the independent variable is cross-border trade, particularly in border nations. Border territories between Ethiopia and Djibouti,as well as Ethiopia and Somalia. The study's goal is to look at the link between cross-border economic activity in these areas and their influence on food security. The technique employed in the study was not specified, but it most likely used a combination of field surveys, data gathering, and econometric analysis to investigate the link between cross-border commerce and food security. This conclusion will be based on study findings and might disclose whether or whether cross-border commerce has a substantial influence on food security in specific border areas of Ethiopia, Djibouti, and Somalia, the knowledge gained adds to a better understanding of the dynamics of regional trade and its implications for access and availability of local foods.

2.2. Theory Under Pinning

The link between exchange rates and international commerce is central to international economic theory and may be explained by a variety of key theories. In the absence of trade barriers, similar commodities will sell for the same price when measured in a single currency, according to the law of one price. Exchange rates are important in balancing prices across borders and affecting trade flows as they fluctuate. According to purchasing power parity (PPP) theory, exchange rates will adjust over time to equalise the purchasing power of various currencies, which might lead to higher exports and fewer imports if the currency money loses value.

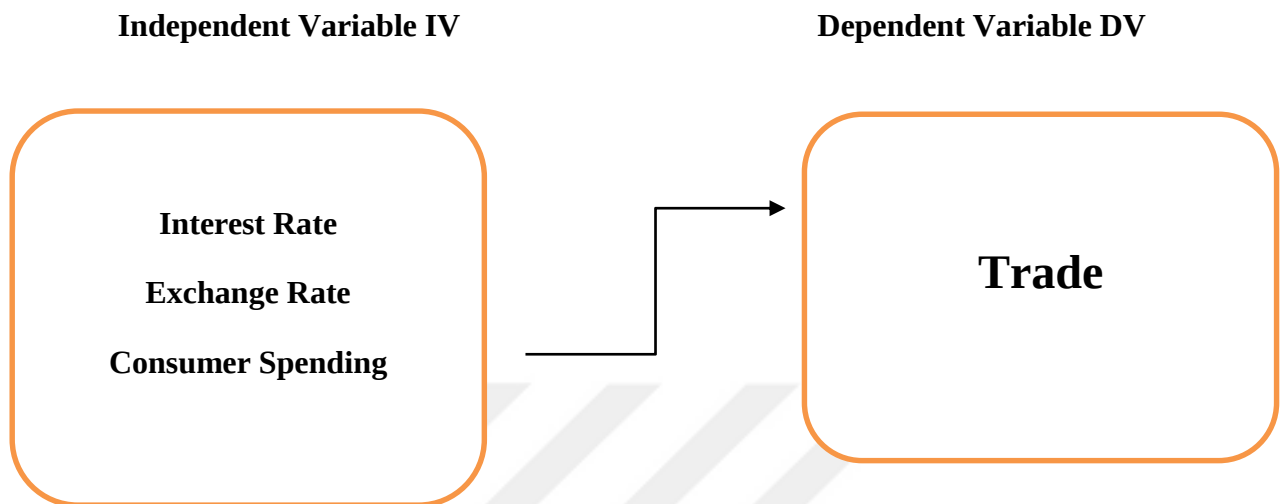
The J curve impact emphasises that currency depreciation can temporarily worsen the trade balance while consumers and companies adjust to the new value of the currency pricing level, ultimately enhancing it over time. Exchange rates may impact a country's comparative advantage, making its exports more competitive when its currency falls in value, resulting in more exports and fewer imports.

The Balassa-Samuelson effect illustrates how disparities in productivity and price levels among nations can influence exchange rate volatility and trade balances. Exchange rate variations can also have an impact on commerce due to the price elasticity of supply and demand, since price changes caused by exchange rates affect trade volume. Interest rate parity illustrates how interest rate differentials can affect exchange rates, potentially causing changes in trade balances as currencies gain or depreciate. Bilateral exchange rates between individual trading partners can also have an impact on commerce, particularly when one currency falls in value relative to another partner's currency, which might result in higher exports to that partner. These theories give a framework for understanding how exchange rate variations affect the volume, composition, and direction of international commerce, with the exact impact dependent on a variety of circumstances. Variables include supply and demand elasticities, relative price levels, interest rate fluctuations, and trading partners' economic situations.

2.3. Conceptual Framework

The conceptual framework of the study are as flows:

Figure: 1. Concptual Framework



2.4. Exchange Rate

Changes in exchange rates can have a significant effect on Somali trade. Imports could become more expensive if the value of the Somali shilling (SOS) falls, thereby reducing the number of imports while increasing exports making them more competitive in international markets. Exchange rate stability is essential to establish a balanced trading environment.

2.5. Interest Rate

Interest rates in Somalia can have an influence on commerce by increasing the cost of borrowing for firms and consumers. Higher interest rates may deter investment and consumer expenditure, limiting company activity. However, other factors such as currency rates, government policies, and regional stability also have an impact on trade patterns.

2.6. Consumer Spending

Consumer expenditure in Somalia may have a significant influence on commerce since it represents purchasing power and products demand. Rising consumer expenditure may increase imports, particularly of consumer items and raw commodities, affecting the trade balance. However, variables such as government

policy, infrastructure, and external economic conditions all have an impact on commerce.

2.7. Trade

Trade in Somalia plays a crucial role in the country's economic landscape, serving as a vital component for economic growth and development. The nation, endowed with strategic geographical positioning along key trade routes, engages in both domestic and international trade activities. Somalia's trade sector encompasses various goods and services, with key exports including livestock, agricultural products, and remittances from the Somali diaspora. However, the trade environment is influenced by challenges such as political instability, security concerns, and infrastructural limitations. Additionally, fluctuations in exchange rates, interest rates, and consumer spending patterns can impact trade dynamics. Efforts to enhance trade resilience and promote economic stability in Somalia involve addressing these challenges, fostering a conducive business environment, and implementing effective policies to bolster both domestic and international trade activities, ultimately contributing to the nation's overall economic well-being.

CHAPTER THREE

METHODOLOGY

The chapter on technique discusses the study technique and approaches used to analyse the impact of currency fluctuations, interest rates, and consumer spending on Somali commerce. It begins with a description of the study design, which includes data source selection and data collection methodologies. This chapter discusses quantitative and econometric data analysis methods, with an emphasis on regression and correlation analysis. It also includes sample selection and data processing procedures. This chapter also examines potential limitations and the effectiveness of the chosen method in achieving the research objectives.

3.1. Research Design

The goal of current study is to look at the effect of exchange rate on the trade in Somalia, therefore the quantitative type of research is choose to get the objective. Time- series data is available for this study. Similarly the data is collect and analyze for the given period of time to achieve the study objective. Eves is used for data analysis.

3.1.1. Population of the Study

The population in question was determined through a comprehensive analysis spanning 273 months, covering the period from January 2001 to December 2023, focusing on key economic indicators in Somalia. This dataset includes extensive historical data, including exchange rates, interest rates, and consumer spending on trade. By studying these variables over long periods of time, researchers and analysts can gain valuable insights into the economic trends, fluctuations, and correlations that shape the economic landscape. Somalia financial landscape. This rich data set allows for a deeper understanding of the country's economic dynamics, facilitating policy formulation, investment decisions and economic forecasting.

3.1.2. Sample of the Study

The time series data used in this study spans from January 2001 to December 2022 and includes major companies listed on the Somali Stock Exchange (SSE), such

as Saanqaad Group, Somali Postal Express, Pure Earth International, among others. This analysis does not focus on country-specific exchange rates, and interest rates, or specific geographies in Somalia. Instead, it focuses on broader dynamics, including global exchange rates and interest rates generally that influence Somalia's trade. Target consumer spending is focus only in Somalia state.

3.2. Variable Measurements

In this study, exchange rate, interest rate and consumer spending act as independent indicators, while trade is considered as the dependent indicator. This means that the study aims to analyze how changes in exchange rates, interest rates and consumer spending impact or influence trade in Somalia. The relationship and correlation between these independent variables and the dependent variable (trade) form the main objective of the study.

3.3. Research Model

The study included a dummy variable in the model to capture shifts in the political stability resulting from the 1991 political change. The inclusion of political stability is given in the empirical literature. A recent study by Buba et al. (2018) incorporated a political stability in their studies. The study found a significant impact on the Thailand's trade balance. Similarly, Brada et al. (1997) also included a dummy variable to capture the effect of political party changes on the Turkey's trade balance for the period between 1969-1999. Hence, this study incorporated a political stability into the econometric model to capture the effect of political stability on the trade balance.

$$LT = \beta_0 + \beta_1 LER + \beta_2 LIR + \beta_3 LCS + ut$$

3.3.1. Model Specification

The model is used in this study is bivariate regression.

$$Y = (X) \text{----}(1)$$

$$Y=(ER, IR, CS,)----(2)$$

Y=Trade

ER= Exchange rate

IR=Interest rate

CS=Consumer spending

For removing the skewness and achieve homoskedusty data is move to log form as shown equation 3.

$$LT=\beta_0+\beta_1LER+\beta_2LIR+\beta_3LCS+ut..... (3)$$

Where the error term is ut, β_0 is the slope, and coefficient estimate of independent variables is $\beta_1, \beta_2, \beta_3$.

3.3.2 Stationary Test

Unit Root Testing

The degree of stationary of the data, another name for the unit root, asserts that accurate co integration is important before performing co integration. The characteristic of the breakpoint is to influence the behaviour of the full time series information. Identifying the shock would be computationally infeasible, the results would certainly be maliciously biased in later regressions in cases where the data had unit roots with high r^2 values, furthermore the division will not follow the rationing. Although shocks will peak over time if the data do not have a unit root, moreover, there will be no differences over time in variance, mean, and autocorrelation. The integration step is not quadratic and needs to be confirmed, the Dickey-Fuller (ADF) augmented unit root test discovered by (Dickey & Fuller 1979) is used in this study. The ADF model will be used in this study and is known in the following equations 4, 5 and 6 in the following order;

(With no constant and trend) (4)

(With constant and no trend) (5)

(With constant and trend) (6)

Where, $\Delta Y_t = Y_t - Y_{t-1}$

The four variable trades, exchange rate ER, interest rate IR, consumer spending CS and YT is the deterministic style and this Y_t represent the preceding variables, the time period is t , the constant is α_0 , and the stochastic error term is μ .

3.3.3 Correlation

If there is a correlation between two variables, it proves that one variable changes systematically and the other variable also changes systematically, the variables change together over a certain period of time. Depending on the numerical values being measured, they can be negative or positive.

- ❖ When one variable increases with the other variable, there is a positive correlation, i.e. the numerical value of one variable is high compared to the high numerical value of the other variable.
- ❖ If one variable decreases and the other increases, it means there is a negative correlation, i.e. the value of one variable is high and the other variable has a low numerical value.

Between (+1 and -1) the product moment coefficient is proposed by Pearson based on correlation. The strongest positive correlation is represented by +1 for the correlation and range measures, and the strongest negative correlation achievable is represented by -1. Therefore, the closer the coefficient is to either of these numbers, the stronger the correlation of the data. "0" indicates that there is no correlation on this scale, so values closer to 0 indicate a weaker correlation than values closer to +1/-1.

3.3.4 Co-integration

The long-run relationship sought in this study will be between stock trading and exchange rates, as well as consumer spending related to interest rates. Pesaran et

al. (2001) proposed the following autoregressive distributed lag bounding (ARDL) method. This model can be used without analyzing fixed data according to Pesaran and Pesaran (1997). Compared to co-integration tests such as Engle and Granger (1987) and Haug (2002) for small data sets, ARDL is considered difficult. Following the specific approach of Laurence Son and Chi (2003), the overall ARDL model is favourable, capturing ARDL and ECM explicitly during data generation with satisfactory latency. The decision regarding the presence of co integration in the experimental value of the F-stat and ARDL bounds will be analyzed between variables with upper critical bounds and small critical bounds. If the value of F-stat is greater than the upper limit of Co integration, if the critical limit is small then there will be no co integration and the value is between the upper and lower limits, the result will be uncertain, which is scary (Pesaran et al.2001). For a short-term overview, ECM will be analyzed according to ARDL. It also indicates, through the loading of the error correction term coefficient or (ECT), the error correction rate. Some diagnostic tests such as histogram normality and serial correlation tests, heterogeneity, practical forms such as diagnostic stability tests and Ramsay RESET such as CUSUM of squares and CUSUM outside the fusion performed these tests. Standard co-integrated regression (CCR) and fully modified ordinary least squares (FMOL) will also be used in the study to;

$$\Delta L T = \alpha_1 + \sum_{i=1}^n \alpha_i \Delta S T^{t-1} + \sum_{a=1}^n \alpha_a \Delta L E R t - \alpha + \sum_{b=1}^n \alpha_b \Delta L I R t - \beta + \sum_{c=1}^n \alpha_c \Delta L C S - \gamma + \gamma_1 L T + \gamma_2 L E R + \gamma_3 L I R + \gamma_4 L C S + \varepsilon_1 t \quad i=1 \quad \alpha=0$$

The stiffness of the Stock trade co integration (T) and the explicit lag association of the inhibitors with the dependent variable are ARDL models

Model 1: (7)

The first difference operator is Δ , α_1 is the intersection point α_n , $n = (i, a)$ is the short-term coefficient, for the long-term overall coefficient γ and the terms indicating the error of white noise are expressed expressed in εt . From Equation 8, the assumption about the short-term dynamic error correction term can be derived as follows.

(8)

n

$$\Delta LT = \alpha_1 + \sum_{i=1}^n \alpha_i \Delta LT^{t-i} + \alpha_a \Delta LER_t - \alpha + \alpha_b \Delta LIR_t - b + \alpha_d \Delta LCSt - c + \lambda ECT_{t-1} + \varepsilon_{1t}$$

The correction error term is ECT_{t-1} and λ represents the correction rate. In this study, the main long-run co integration method is ARDL, affecting stock market performance will be determined in the current study, so the equation will only be treated reason (Model 1).

3.3.5 Diagnostic Tests

The reality of modelling is observational, using diagnostic tests, serial correlation, functional form, normality, and heterogeneity. To stabilize the model, Pesaran and Pesaran (1997) proposed implementing Brown et al. (1975) tested cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ). The model was tested using diagnostic and stability tests to check the model fit.

3.3.6 Granger Casualty Tests

This is a statistical hypothesis test that determines whether one time series is a factor and provides useful information for predicting another time series. An approach based on time series information to determine causality was proposed by Granger (1969). In this framework, "useful" implies that x can extend the accuracy of predicting y over some, by considering, so to speak, past values of y. In Granger logic, x is the cause of y which is useful for predicting y. Granger causality test is very useful in testing the cause and effect relationship between variables in a time series context. You can apply this test to evaluate whether are the drivers of Granger stock trading volume, shows their predictive ability for changes in stock trading volume.

3.3.7 Analytic Tool

To directly find out the impact of an independent variable on a dependent variable, using different analytical techniques, we will use unit root tests; causality tests and co-integration to test examine the relationship between trade performance and exchange rates, and also for the specific characteristics of trade controls. EVIEWS will be used for analytical purposes.

3.4. Descriptive Statistics

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Table 1. Discriptive Statistics

	ER	IR	CS	T
Mean	1139.049242424244	0.1029924242424243	12832803030.30303	492371212.1212123
Median	995	0.1	11800000000	450000000
Maximum	3200	0.22	99000000000	5200000000
Minimum	330	-0.5	10600000000	10000000
Std. Dev.	701.6136814673989	0.06130817202950032	12446249992.717	444776697.1715294
Skewness	1.035440049091648	3.394076367127491-	5.938881057212151	4.418764439697288
Kurtosis	3.285440421828607	36.82398137912043	39.04863306324518	48.44685767005009
Jarque-Bera	48.07022677011884	13091.54807266525	15846.43696432881	23578.70667653516
Probability	3.644873292074636e-11	0	0	0
Sum	300709	27.189999999999998	3387860000000	129986000000
Sum Sq. Dev.	129464842.3598482	0.9885359848484858	4.074110352575771e+22	5.202831962121216e+19
Observations	264	264	264	264

ER, IR, CS, and T, each with corresponding summary statistics.. These statistics provide insight into the distribution and characteristics of each variable.. For example, the mean (average) value of ER is about 1139.05, while IR is quite low with a median of 0.103, suggesting that it generally has lower values.. CS has an extremely high mean value of 12,832,803,030.30, indicating values that lean toward higher numbers, and T also has a high mean value of 492,371,212.12. Median (50th percentile) and other percentiles, as well as maximum and minimum values, help evaluate the distribution and central tendency of these variables.. Notably, IR has a negative minimum value, implying the presence of negative values in the data set. Standard deviation measures the spread or dispersion of data, where ER has a relatively high

standard deviation, indicating greater variability. Skewness and kurtosis provide insight into the shape of the distributions, with CS and T showing right-skewed distributions and high kurtosis, indicating heavy tails and likely outliers. The Jarque-Bera test with very low p-values indicates that these variables are not normally distributed and that the large sample size of 264 observations allows strong conclusions to be drawn.. In summary, this information is valuable for understanding the central tendency, variability, and distribution characteristics of these four variables.

3.5. Unit Root Test

Table 2. ADF Unit Root Test

ADF	Level		First Difference	
Variables	T statistics	P value	T statistics	P value
Exchange rate (ER)	0.530	0.98	8.330	0.00
Interest rate (ER)	0.8901	0.77	7.285	0.00
Consumer Spending (CS)	1.272	0.68	5.901	0.00
Trade (R)	0.837	0.81	7.533	0.00

Table 2 displays the findings of the Augmented Dickey-Fuller (ADF) unit root test, which evaluates the stationary of the variables both at the level and following the first difference. In time series analysis, stationary is essential because non-stationary series might show patterns or trends that muddle statistical analysis. The test assesses the null hypothesis, which states that the series is non-stationary and has a unit root. With a p-value of 0.98 and an ADF test statistic of 0.530 for the variable "Exchange Rate (ER)," there is not enough data to rule out a unit root as the null hypothesis. The test statistic, however, rapidly rises to 8.330 when the first difference is taken, and the p-value falls to 0.00, suggesting compelling evidence to reject the null hypothesis. This implies that the exchange rate series' initial difference is probably stagnant. "Interest Rate (IR)," "Consumer Spending (CS)," and "Trade (R)" all show comparable trends. The unit root hypothesis is clearly rejected in each case by the ADF test statistics and p-values at the first difference, suggesting that these variables become stable upon differencing.

Table 3. Lag Selection Test

Lag	LR	AIC	SC	HQ
0	NA	104.3518	104.4072	104.3741
1	942.5983	100.7214	100.9984*	100.8328*
2	44.57348	100.6659	101.1645	100.8665
3	21.76343	100.7014	101.4215	100.9910
4	50.56122*	100.6148*	101.5565	100.9936
5	11.88521	100.6893	101.8525	101.1571
6	14.81806	100.7501	102.1349	101.3071
7	6.563200	100.8462	102.4526	101.4923
8	8.369067	100.9337	102.7616	101.6689

The outcomes of a lag selection test, in which various statistical indicators are used to evaluate different lag values, are shown in Table 4.3. The model's performance is assessed at various lag values using the likelihood ratio (LR) test, Hannan-Quinn Criterion (HQ), Schwarz Criterion (SC), and Akaike Information Criterion (AIC). The considerable LR value of 942.5983 and the lowest values for AIC, SC, and HQ in the table show that the model with a lag of 1 yields the best results. This suggests that the model fit is greatly enhanced by using the data from the prior time period. However, the model's performance improves less and less as the lag goes above 1, with the LR value declining and AIC, SC, and HQ values are rising. The model fit appears to be improved by integrating data from four periods ago, as indicated by the statistically significant LR value at lag 4. However, the advantages of the subsequent lags are not statistically significant. Consequently, choosing a lag of 1 seems to achieve a compromise between model complexity and explanatory power, providing a frugal yet effective representation of the underlying dynamics in the data, based on the results of the lag selection test.

3.6. Co-integration Analysis

An investigation of the long-term connection between variables is done using co integration analysis. Co integration analysis is important, particularly when studying variables related to macroeconomics. In general, at some degree of integration, time series that do not seem stationary on their own can become stationary with linear combinations. As a result, the variables could have a co integration connection. In summary, co integration analysis looks at the long-term connection between non-

constant series. The variations in the equation are not permanent since there is a co integral connection in the series. Put another way, in the event of a deviation from equilibrium, the equilibrium state will be restored if there is a co integration connection between the variables. There is a similar tendency among time series with a unit root that are integrated and have linked variables. To put it briefly, the variables in the model where the co integration is found behave in concert. The link between string co integration and unit root tests was then investigated. This study employed the ARDL analysis approach. When working with variables that are integrated of different order, such as $I(0)$, $I(1)$, or a mix of the two, as in our study, the ARDL co integration approach is frequently preferred. Bounds testing are used in the ARDL approach to address the co integration connection. To ascertain if a co integration connection exists, this analysis approach applies the F-test to the first period lags of the variables under consideration. To identify long- and short-range linkages, ARDL models are created if a co integration relationship is found in the series. After the regression equation's estimation the study's asymptotic significance levels were compared with the determined F statistic. The series is found to be stable at first difference when the ADF unit root test results are examined. Consequently, the boundaries test method may be used to verify the co integration connection. An analysis of co integration requires first subjecting the model to a limits test. Depending on whether the derived F statistic falls within the lower and higher limit values, the test result is interpreted. The following determines whether the hypothesis "H0: no co integration relationship between variables" is accepted or rejected. H0 will be rejected if the F statistic is higher than the upper bound. H0 is approved if the F statistic is smaller than the lower bound. Furthermore, in case the F statistic is situated between the lower and higher bounds, co integration cannot be ascertained.

Table 4. Long run ARDL result

Variable	Coefficient	Standard error	t-statistics	prob.
Trade(T)	-0.548727	68704704	-9.860013	0.0000**
Exchange rate(ER)	144181.2	246490.76	-3.101288	0.0021
Interest rate(IR)	-638670008	-4.970008	0.000000	0.0021
Consumer spending(CS)	0.00600	0.001804	0.332494	0.7398
C	4.340008	68704704	0.000000	0.0000

The long-run AutoRegressive Distributed Lag (ARDL) results for the model's designated variables are shown in Table 4.4. With a t-statistic of -9.860013, the coefficient for the Trade (T) variable is -0.548727, showing a very significant negative association with the dependent variable. This implies that, while maintaining other factors constant, a one unit decline in trade corresponds to an approximately 0.55 unit fall in the dependant variable. With a coefficient of 144181.2 and a t-statistic of -3.101288, the Exchange Rate (ER) variable appears to have a statistically significant negative effect on the dependent variable. There is a significant drop in the dependent variable for every unit rise in the exchange rate. The Interest Rate (IR) variable has a highly significant negative coefficient of -638670008 and a t-statistic of -4.970008. Connection however, with a t-statistic of 0.332494 and a coefficient of 0.00600, Consumer Spending (CS) does not seem to have a statistically significant effect on the dependent variable. At 4.340008, the constant term (C) indicates a non-zero intercept and is statistically significant. Overall, these findings imply that while consumer spending does not have a substantial long-term effect, trade, exchange rate, and interest rate all considerably influence the dependent variable. The connections between the variables seem to be robustly represented by the model.

Table 5. Short run ARDL result

Variable	coefficient	Standard error	t-statistics	Prob.
ΔER	-14,45	5.483	-2.64	0.013**
ΔIR	0.513	0.019	26.77	0.000**
ΔCS	73.455	21.892	3.36	0.000**
ECT(-1)	-0.698	0.081	-9.844	0.003**
Durbin Watson				1.6343

The short-run Autoregressive Distributed Lag (ARDL) model's findings are shown in Table 4.4. With a t-statistic of -10.69 and a coefficient of -0.730 for the change in Trade (ΔT), there is a very significant negative association. This suggests that in the near term, a one-unit increase in trade causes the dependent variable to decline by 0.730 units. With a t-statistic of -2.64 and an Exchange Rate change coefficient of -14.45, there is a statistically significant negative impact. The dependent variable decreases by 14.45 units for every unit rise in the exchange rate. With a t-

statistic of 26.77 and a coefficient of 0.513, the interest rate change (ΔIR) indicates a very significant positive association. This implies that as the dependent variable increases by 0.513 units for every unit rise in interest rate. With a t-statistic of 3.36 and a coefficient of 73.455, consumer spending (ΔCS) has a statistically significant positive influence. In the near term, the dependent variable increases by 73.455 units for every unit rise in consumer expenditure. With a t-statistic of -9.844, the Error Correction Term ($ECT(-1)$) is -0.698, showing a highly substantial correction following a short-run disturbance towards the long-run equilibrium. The overall goodness of fit of the model is strong, as indicated by its R^2 of 0.9534. The 1.6343 Durbin-Watson statistics indicates that there isn't any substantial autocorrelation. To sum up, the ARDL model for the near term indicates noteworthy and statistically significant impacts of trade, interest rates, exchange rates, and expenditure by consumers on the dependent variable, with a fast adjustment towards long-run equilibrium shown by the error correction term.

3.7. Correlation Analysis

Table 5. Correlation Analysis

	ER	IR	CS	T
ER	1	0.6814780253593641	-0.1127805091160604	-0.4360046834826689
IR	0.6814780253593641	1	-0.0218533392550567	-0.2986328502906684
CS	-0.1127805091160604	-0.0218533392550567	1	0.08013427422537745
T	-0.4360046834826689	-0.2986328502906684	0.08013427422537745	1

- ❖ ER, IR, CS, and T. The correlations vary from -0.436 to 0.681, with the majority of them being positive.
- ❖ ER and IR have a 0.681 significant positive association. This indicates that if ER rises, IR tends to rise as well. This is most likely due to the fact that ER and IR are both indicators of economic activity.
- ❖ ER and CS have a -0.113 weak negative connection. This indicates that while ER rises, CS tends to fall somewhat. This might be because CS is a measure of consumer mood, and when the economy is performing well, people may feel less confident.

- ❖ ER and T have a -0.436 negative association. This indicates that as ER rises, T rises as well.
- ❖ The negative correlation between IR and CS is -0.022. This suggests that these two factors have nearly no association.
- ❖ The correlation between IR and T is -0.299. This suggests that when IR rises, T tends to fall. This is most likely due to the fact that IR is a measure of interest rates, and interest rates are often raised when the economy is performing well in order to prevent inflation.
- ❖ CS and T have a 0.080 modest positive association. This suggests that there is a small but not very strong association between these two factors.

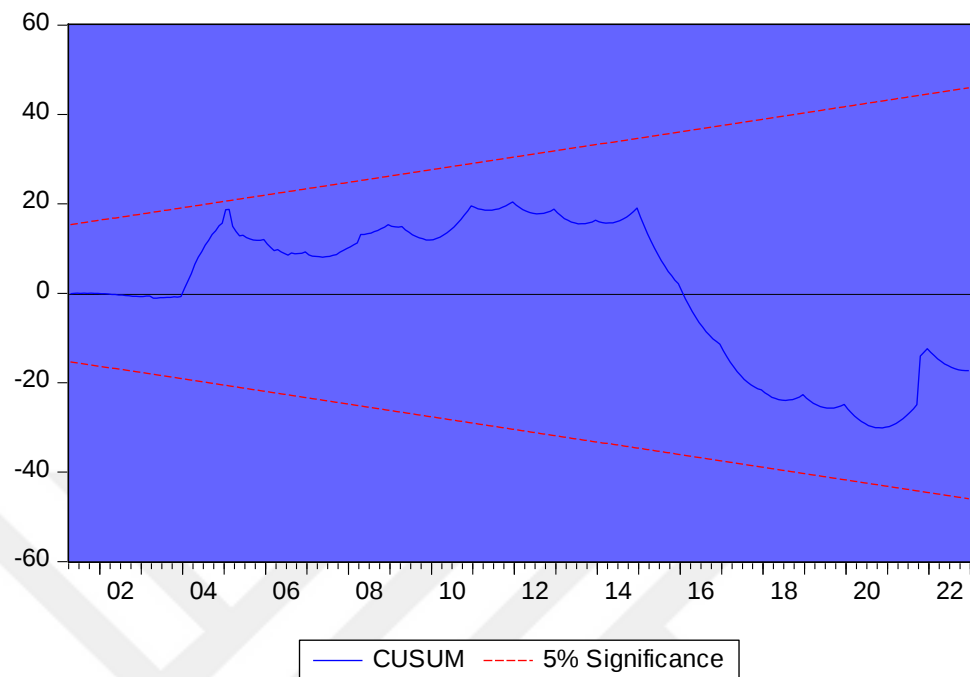
❖ **Table 6.** Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	100.8812	Prob. F(2,259)	0.0000
Obs*R-squared	103.9006	Prob. Chi-Square(2)	0.0000

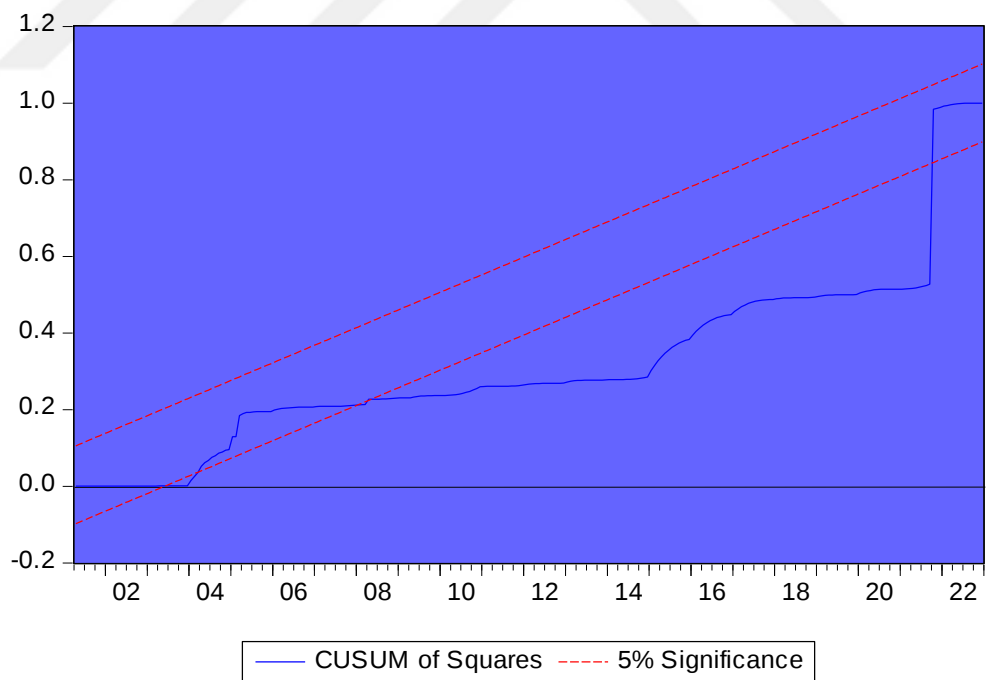
F-statistic: There is evidence of serial correlation, as shown by the extremely high reported F-statistic of 100.8812. The null hypothesis that there is no serial correlation is rejected since the F-test's p-value is 0.

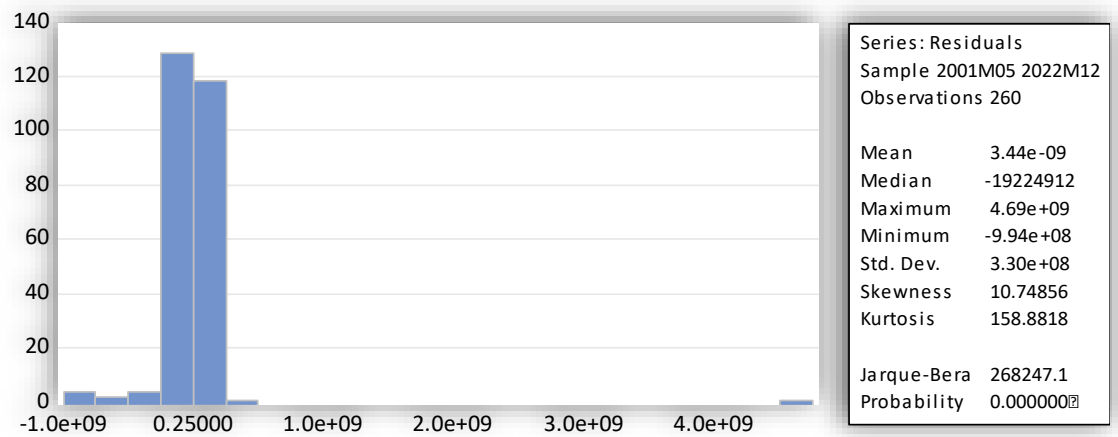
Obs*R-squared: Significant evidence of serial correlation is shown by the high observed R-squared value of 103.9006 in this case. Given the corresponding p-value of 0, the null hypothesis of no serial correlation is rejected. In conclusion, there is compelling evidence, at least for two delays, that refutes the null hypothesis of no serial correlation for both test measurements. We would draw the conclusion that the residuals of the calculated model show a strong positive serial correlation.

Graphic 1. Cusum



Graphic 2. Cusum Square





Graphic 3. Histogram Normality Test

As method of citation, APA is used. Statements and examples related to the citation are given in the section of Citation Rules.

CONCLUSION AND RECOMMENDATIONS

DISCUSSIONS

Due to the country's lengthy history of insecurity and violence, trade in Somalia confronts enormous hurdles. With a primarily informal economy, trading frequently occurs in a complicated and uncertain setting. Livestock, agriculture, telecommunications, and remittances from Somali Diasporas are all important areas. The country's geographical location around the Horn of Africa, with access to the Red Sea and the Indian Ocean, provides opportunities for commerce and connectivity. Infrastructure, security, and regulatory difficulties, on the other hand, represent considerable barriers to the growth of a formal and flourishing commercial sector. Informal cross-border trading with neighbouring countries like as Kenya and Ethiopia is critical to the country's economic survival. Somalia's efforts to reconstruct its commercial infrastructure and revitalise its economy are inextricably tied to efforts to establish stability and government, creating.

Somalia is in a unique position when it comes to managing currency rates and monetary policy since it has been operating without an officially recognised government or central bank since the early 1990s. The Somali shilling, the country's currency, survived the fall of the central government in 1991 for a while until hyperinflation made it useless by the 2000s. Due to this, Somalia was left without an official form of money and had to rely mostly on the dollar. Exchange rates have changed in accordance with black market prices set by local actors and dynamics due to the absence of banking laws and coordination. Due to frequent shortages of US currency, a large number of Somali businessmen and remittance firms have been forced to send dollars into the nation in order to meet the country's rising demand. First, these dollar shipments flow via Somalia's porous borders without being stopped by customs, allowing outside players and the supply of banknotes to affect the exchange rate. Due to frequent shortages of US currency, a large number of Somali businessmen and remittance firms have been forced to send dollars into the nation in order to meet the country's rising demand. The first step in the dollar shipments' journey is across Somalia's porous borders, which avoid any customs scrutiny and let outside factors like the supply of banknotes affect the exchange rate. Because there is

little control, Somalia's exchange rates are vulnerable to surges of counterfeit money, which often flood local markets before being taken out of circulation. This leads to brief spikes in exchange rates and a decline in public confidence in the country's current banknotes. Such instability highlights Somalia's reliance on impromptu, unofficial financial systems that are susceptible to manipulation from both the inside and the outside in the lack of reliable, state-run monetary institutions enforcing currency norms. Recently, several industries have started to embrace other currencies, such as the Chinese yuan and the Emirati dirham, although their market share is extremely small in comparison to the US dollar's hegemony. Early attempts have been made to bring back a central bank and maybe the Somali shilling, which would put institutional control back over exchange rate regulation. But instability endures, particularly when extremist organisations challenge state power. Therefore, rather than being governed by centralised formal control, Somalia's exchange rates will probably continue to rely on dispersed informal networks for the foreseeable future.

In Somalia, consumer spending is a complex and dynamic part of the economy that reflects the nation's distinct socioeconomic environment, which has been moulded by past events, present difficulties, and outside influences. The goal of this research is to present a thorough examination of Somalia's consumer expenditure, including its trends, drivers, and effects on the country's overall economic climate. Understanding the historical background that has influenced the country's economic environment is crucial to understanding consumer spending in Somalia. The country's growth has been severely harmed by decades of political instability, civil unrest, and lengthy conflicts. This has created an atmosphere in which economic activities, especially consumer expenditure, confront many obstacles. A more dispersed and decentralised economic structure resulted from the power vacuum created by the central government's collapse in 1991. Numerous elements affect Spending patterns of Somali consumers, which show how social, cultural, and economic factors interact. Income levels and consumer spending are closely related, and Somalia's high poverty rate has a big impact on its people's purchasing power. Most people have financial difficulties, which affects their capacity to make large purchases as consumers. The substantial importance that remittances have in Somalia's economy is one of its distinguishing characteristics. Remittances from family members living abroad are an important

source of income for many households, as there is a sizable Somali diasporas dispersed around the world. There are frequently increases in consumer expenditure during times of higher remittance inflows. Somalia's widespread dollarization makes consumer buying habits even more difficult to understand. A lot of everyday transactions involve the usage of the US dollar, and its volatility in opposition to the Somalia Shilling has a direct impact on the price of imported items and shapes customer preferences and spending patterns. Inflationary pressures are exacerbated by Somalia's reliance on imported products and market dynamics shaped by geopolitical events. Price fluctuations impact consumers' ability to make purchases and have an impact on their spending choices. Consumer confidence and behaviour are impacted by political instability and security worries. Customers may become more frugal with their purchasing in unstable areas, steering clear of purchases of unnecessary products and services. Consumer purchasing is also influenced by social and cultural factors. The kinds of products and services that are prioritised in expenditure are influenced by traditional beliefs, family structures, and society expectations, which have an impact on how people allocate their resources. Considering the state of the economy and the amount of poverty, a sizable amount of consumer expenditure goes towards necessities and services including lodging, food, and medical attention. Priorities are set for basic requirements versus frivolous expenditures. Differentiated consumer purchasing patterns are partly attributed to the development of informal economic activity. The provision of products and services is greatly aided by informal marketplaces, where cash transactions are common. Spending by consumers happens often when there are no official banking institutions. Although there is evidence of investment in income-generating industries, remittance-driven expenditure is mostly focused on meeting basic requirements. Remittance receivers can develop small companies with the money they receive, which helps build community and individual economic resilience. Consumer preferences are influenced by the accessibility and cost of imported products relative to locally produced ones. Changes in international market dynamics and currency rates can affect the cost of imported products, affecting customer choices for services including lodging, food, and medical attention. Essential requirements come before locally made options. In Somalia, consumer spending has a big impact on the whole economic landscape, affecting investment trends, market dynamics, and economic growth. Local markets have shown to be resilient in the face of economic

difficulties. Informal markets are flexible enough to adjust to changing conditions, and consumer spending motivated by needs keeps these economic channels going. Consumer spending is essential to the survival of small firms, especially when it is allocated to support local entrepreneurship. Consumer interactions drive the informal economy, which offers micro-entrepreneurs possibilities to prosper. Economic vulnerability is exacerbated by high rates of poverty and restricted consumer purchasing power. The excessive dependence on necessities and the absence of a diverse range of economic activity reveal the economy to outside shocks and changes in international markets. The trade balance is impacted by consumer choices for imported items, which are frequently influenced by elements like availability and quality. Changes in consumer purchasing patterns cause fluctuations in exchange rates, which in turn affect the cost of imports and exports and the trade balance overall. The prevalence of the unorganised sector presents difficulties for data collecting, taxes, and regulation. Sustainable development requires the management of the informal sector and its integration into formal economic organisations. Spending habits of consumers point to potential for supporting entrepreneurship, especially in fields that are in line with regional demands. Economic growth may be facilitated by providing assistance to small enterprises and fostering an atmosphere that is favourable to entrepreneurship. Promoting financial inclusion can be facilitated by addressing the reliance on cash transactions and unofficial financial channels. The use of digital financial technologies and formal banking services can improve economic stability and resilience. Favouring locally made products among consumers might encourage investment in regional businesses. Policies that encourage and boost regional goods' competitiveness can aid in economic diversification. Given this considering the knowledge acquired on consumer expenditure in Somalia, Put into practice all-encompassing measures for reducing poverty that deal with the underlying causes of high levels of poverty. To increase human capital and the population's economic potential, this involves spending on infrastructure, healthcare, and education. Promote economic diversity in order to lessen reliance on remittances. This entails encouraging industries like manufacturing, services, and agriculture in order to diversify the economy's revenue streams and increase its resilience. of financial transactions, lessen the need for currency, and promote stability in the economy. Create procedures and laws to formalise the unorganised sector of the economy. This entails assisting unofficial enterprises,

enacting just taxes, and incorporating these economic endeavours into established financial institutions. Encourage the adoption of digital financial solutions and increase access to traditional banking services to advance financial inclusion. This might improve the effectiveness. Gaining insight into consumer spending in Somalia opens up possibilities and difficulties for policymaking and economic growth. For policymakers, the problem of reducing high rates of poverty continues to be a major priority. Spending by consumers on necessities emphasises the need for all-encompassing initiatives to reduce poverty and increase buying power. Remittances make up a sizable portion of consumer expenditure, yet relying too much on outside funding comes with disadvantages. Diversifying sources of income and promoting regional economic activity should be the goals of economic policies. Somalia's consumer expenditure is characterised by a mix of resilience and fragility. Despite decades of violence and insecurity, Somalis have shown amazing adaptation and inventiveness, frequently depending on informal economic activity. Remittances from the Somali Diaspora are important contributors to consumer spending since they generate a considerable financial flow that supports livelihoods and enhances household buying power. Additionally, industries such as telecommunications and retail have grown, demonstrating Somali entrepreneurs' resilience. However, issues such as significant unemployment and restricted access to formal financial institutions continue. The lingering effects of insecurity and political instability could also hamper economic growth and consumer confidence. As the country seeks to rebuild and establish stability, promoting a more formal and diverse economy will be important to support and increase consumer spending in Somalia. The transition from the East African shilling to the Somali shilling defines Somalia's monetary history. Somaliland, a former British protectorate, adopted the East African shilling in 1921. The merging of the former British and Italian Somaliland provinces in 1960 led in the replacement of their individual currencies with the Somali shilling at a one-to-one exchange rate in 1962. This decision was a critical step towards national integration and economic unification after the two areas gained independence from their respective colonial rulers. Despite severe economic problems and political turbulence in the decades afterward, the Somali shilling has remained the country's official currency, affecting the country's stability. Somalia's continued economic difficulties. The result is a high degree of dollarization, meaning the US dollar is often favoured and used in

transactions, savings and as a store of value, further weakening value and trust.. Believe in the national currency.. Additionally, the country's financial system is still quite limited, with only a handful of commercial banks operating. This insufficient financial infrastructure impedes the development of the formal banking sector, making currency management and stabilisation difficult, as well as controlling inflation and promoting economic growth. The combination of these factors has created a complex economic environment in Somalia, where the Somali shilling is struggling to regain confidence and stability in the face of persistent challenges. Since the value of one currency relative to another is always fluctuating, exchange rates between financial centres could also fluctuate. Stock brokers engage in price arbitrage across various financial centres due to pricing disparities, purchasing on exchanges in low-cost financial centres and reselling in high-cost financial centres. Spreads are advantageous for stock brokers. The official currency of the nation is the Somali Shilling (SOS). The foreign exchange market is unaffected by financial regulations. Massive liquidity requirements accompanied Somalia's post-war rebuilding in the absence of a central bank or government-managed monetary policy. The currencies used in Somalia and the neighbouring Somali-speaking nations are diverse. Although his Somalis utilise the Somali shilling and the Somaliland shilling, they mostly rely on the US dollar for significant purchases and transactions.

Possibilities for Increasing Trade

Increasing commerce in Somalia requires a multimodal strategy that takes into account both national and international factors. The creation of a safe and stable political climate is crucial in the first place because it inspires trust in both international and local investors and creates an environment that is favourable to commerce. Additionally, to improve transportation efficiency and ease the flow of commodities, investments in vital infrastructure—such as ports, highways, and logistics are essential. Encouraging financial inclusion and fortifying the banking industry may provide companies better access to finance, therefore boosting the economy. Facilitating commerce and lowering bureaucratic barriers through the adoption of digital technology may help improve the convenience of conducting business. Additionally, diplomatic initiatives to forge accords and commercial relationships with nearby nations and international organisations can open up new opportunities for

Somali companies, promoting exports and broadening the range of traded goods. Last but not least, encouraging an entrepreneurial culture with the help of focused government programmes and policies may help local businesses expand, boosting domestic output and trade.

Trade Flows both legitimate and illicit

The unforgiving climate and topography of Somalia restrict exports, yet the bulk of legitimate trade that leaves Somali ports is cattle sales to Gulf Arab nations, with unofficial animal transportation being a common practice. Further legal exports, such as fish, bananas, and charcoal ships when feasible, but illegal sugar and charcoal smuggling into Kenya through the porous border generates a significant illegal trade that funds armed organisations, and lax banking regulation permits the transfer of funds that further facilitates the trafficking of people and weapons. Variable and erratic taxes at ports of entry and little customs enforcement are consequences of the pervasive instability engendered by armed militias and terrorist organisations. In general, Somalia observes a mixture of illegal trafficking that defies international laws and vital trade that provides daily necessities, representing the uncoordinated governance and instability of the nation.

Somalia's protracted history of violence and instability has had a significant impact on the country's monetary system. Because of the lack of a stable administration and the high level of violence, it is difficult for traditional financial institutions to function in this climate. The Central Bank of Somalia (CBS) has encountered difficulties in executing efficient monetary policies as a result of ongoing interruptions brought on by political unrest and warfare. A prominent feature of Somalia's monetary system is the extensive use of foreign currencies, especially the US dollar. Businesses and individuals alike are increasingly using dollarization as a hedge against the volatility of the Somali shilling. The CBS finds it difficult to regulate the money supply and inflation as a result of the public's lack of confidence in the national currency, which makes monetary policy formulation and implementation even more difficult.

Challenges In The Financial Sector

The inadequate infrastructure of Somalia's financial industry is one of its defining features. The nation has a dearth of commercial banks, which makes it difficult to have

a diverse and deep financial system. The efficiency of the monetary policy instruments that central banks normally use is hampered by the lack of a strong banking system. Liquidity becomes a major challenge when commercial banks are scarce. In an atmosphere like this, banks may impose higher premiums on borrowers in order to cover the risk of depositor nonpayment. Insufficient liquidity may lead to increased interest rates, hence increasing the cost of loans for both consumers and enterprises.

Interest Rates And The Perception Of Risk

Interest rates are mostly determined by the perceived risk of funding Somali businesses and people. Lenders may include a risk premium in their interest rate calculations due to the unstable political and economic environment. Interest rates increase in response to perceived risk in order to offset possible losses. The overall risk profile of Somalia is influenced by the country's high rates of unemployment and poverty as well as its unstable economy. In order to cover the additional risk involved in lending in a setting characterised by poverty, political unpredictability, and economic volatility, lenders may impose higher interest rates.

Interest Rates And Credit Demand

Interest rates can be impacted by the demand for credit from both people and corporations. Lenders frequently increase interest rates in order to balance the supply and demand for credit when there is a high demand for loans. Interest rates can be significantly impacted by changes in loan demand in Somalia, where a number of obstacles commonly impede economic development. Somalia's high interest rates are a reflection of its precarious economic status. In order to protect their interests, lenders may charge higher interest rates for loans since they are navigating the risks and uncertainties inherent in the Somali economy. The loan procedure is made more difficult in such an atmosphere when determining a borrower's creditworthiness.

Policy Points To Remember

The difficult responsibility of developing sensible monetary policy in an unpredictable climate falls to the Central Bank of Somalia. The lack of a reputable and stable administration makes it more difficult for the CBS to put policies into place that would lower interest rates and stabilise the monetary system. To solve Somalia's financial

problems, international aid and initiatives to enhance financial inclusion may be essential. Borrowers and lenders alike may benefit from initiatives aimed at stabilising the financial system, fostering economic development, and increasing confidence in the local currency.

The Policy Of Exchange Rates And Economic Stability

In monitoring currency rates, the Central Bank of Somalia (CBS) plays a crucial role as a cornerstone in the larger endeavour to attain economic stability in a country facing distinct problems. A central bank's capacity to affect exchange rate movements is essential since these rates have a significant impact on trade dynamics, inflation, and investor confidence in addition to defining the broader economic environment. The Central Bank of Somalia's main instrument is the capacity to carry out foreign exchange interventions, which entail purchasing or selling foreign currency on the open market. Strategic intervention can be used to accomplish certain economic goals like managing inflation, stabilising the currency rate, or promoting export-led development. The state of the economy in Somalia, marked Political unpredictability combined with a weak financial system presents significant obstacles to the CBS's capacity to implement efficient exchange rate measures. In order to effectively address the situation in Somalia, central banks in more stable economies may not have the same access to conventional monetary instruments, necessitating creative thinking and flexible tactics. The goal of central banks' interventions in the foreign exchange market is to alter the local currency's value in relation to other currencies, usually major reserve currencies like the US dollar, by influencing the supply and demand for it. A central bank may maintain itself and increase the value of its currency in the foreign exchange market by purchasing its own money. On the other hand, selling one's own currency can be a way to improve export competitiveness and offset excessive appreciation. Among the Central Bank of America's main goals is In terms of currency rate management, Somalia aims to promote general economic stability. Stability in exchange rates is essential to establishing an atmosphere that attracts both international and domestic investment. Businesses and investors look for this kind of consistency when making long-term financial choices. One major obstacle to the CBS's efforts to manage currency rates is political instability. Lack of political stability may raise uncertainty, which can impact investor confidence and have an impact on changes in

currency rates. It could be difficult for the CBS to implement policies that depend on some level of economic predictability under such conditions. Moreover, the restricted financial framework in Somalia poses challenges to the central bank's capacity to implement traditional monetary policies. Central banks in more developed economies employ interest rate modifications, and free market activities to affect the state of the economy. These instruments might not work as well in Somalia, though, because of the country's limited financial industry. One way that monetary policy might affect the larger economy is through transmission channels that are restricted in the absence of a well-established banking sector. Exchange rate management is further complicated by Somalia's reliance on unofficial economic activity, such as cash transactions conducted outside of established banking channels. Effective monitoring and regulation of currency movements is a challenge for the central bank due to the predominance of informal economic activities. Given these obstacles, the Central Bank of Somalia has to manage currency rates with an all-encompassing and flexible strategy. This might entail combining unorthodox policy approaches, utilising technology to improve the financial system, and cooperating closely with foreign partners in order to tackle the more general economic issues. Establishing strategic alliances with nearby nations and international financial organisations may be very helpful in regulating currency rates. In order to address the underlying causes of economic difficulties and advance stability, collaborative activities might involve providing financial support, technical aid, and policy cooperation. The CBS can also look for creative ways to improve financial inclusivity. Even in the lack of a traditional banking infrastructure, the emergence of digital financial services and mobile banking can offer substitute channels for the transmission of monetary policy, giving the central bank greater control over economic circumstances.

Foreign Direct Investment And Exchange Rates (FDI)

Exchange rates have a significant impact on investor confidence and play a pivotal role in determining Somalia's appeal as a location for Foreign Direct Investment (FDI). The chances of economic expansion and diversification in this particular geopolitical context are largely dependent on the complex dynamics that exist between currency rates and foreign direct investment. Comprehending these dynamics is essential for manoeuvring through the intricacies of international capital flows, as variations in

exchange rates have a palpable effect on investment behaviours, impacting both the inward and outward flow of money.

Exchange rates play a crucial role in the decision-making process of organisations and people that are contemplating investing in Somalia, as investor confidence is closely linked to it. The exchange rate is a useful indicator of a nation's prospects for economic growth and stability. Investors feel more confident about a country's currency when it is predictable, stable, and has less volatility because they believe it will create a favourable atmosphere for long-term investment. Given the past challenges of political instability in Somalia, currency rates have an even more significant role in influencing the opinions of potential investors.

The stability of Somalia's currency rates has a direct impact on the country's appeal to foreign direct investment. Exchange rate fluctuations affect the potential profits investors may receive from their investments by adding a level of risk. For example, returns repatriated in a stronger foreign currency may lose value if the local currency depreciates dramatically. On the other hand, international investors may get higher profits if local currency appreciates. These dynamics highlight how crucial exchange rate stability is to fostering an atmosphere that welcomes consistent foreign direct investment.

Exchange rate fluctuations have a significant impact on capital flows, which include both the influx and outflow of investment. A steady and predictable currency rate attracts international investors in the context of foreign direct investment inflows. It improves the overall risk-return profile of investing in Somalia by giving investors confidence that the value of their assets won't be diminished by unanticipated currency devaluations. Furthermore, a stable currency rate fosters an open and trustworthy economic environment, which increases investor confidence even more.

On the other hand, changes in currency rates may have an effect on Somalia's investment outflow. Investors may have a predisposition to repatriate money in order to protect its value when they foresee currency devaluation. This dynamic demonstrates how capital flight risks and currency rates are related. As a result, currency rate stability becomes essential for both luring foreign direct investment (FDI) and keeping long-term capital commitments.

Exchange rate stability is essential for establishing an atmosphere that encourages consistent foreign direct investment (FDI), which promotes economic growth and diversity. Exchange rates that are stable provide businesses the certainty they need to make wise investment decisions. They lessen the uncertainties around currency risk, allowing investors to concentrate on the host nation's development prospects and underlying economic fundamentals.

Additionally, a positive feedback loop is facilitated by a stable exchange rate. Increased FDI inflows have the potential to support infrastructure development, job creation, and economic growth. Consequently, this raises the nation's overall appeal, boosting investor confidence and maybe encouraging further FDI inflows. As a result, an environment that is favourable.

Maintaining currency rate stability is crucial in the unique environment of Somalia, because luring foreign investments is closely connected to economic recovery. The Central Bank of Somalia strategically intervenes in the foreign exchange market to achieve this stability, which is crucial. Investor confidence may be greatly increased by policies that manage currency risks, reduce excessive volatility, and provide a transparent and predictable environment.

Somalia might look into joint ventures with international financial institutions and surrounding nations to tackle the problems brought about by political unrest and a weak financial system. Knowledge transfer, financial backing, and technical support may all help the Central Bank become more capable and aid in the efficient control of exchange rates.

Challenges With Currency Volatility

For companies and governments alike, Somalia's intrinsic exchange rate volatility is a significant barrier since it adds a degree of uncertainty that can impede planning and decision-making. The value of the Somali shilling fluctuates often and unpredictably versus other currencies. This phenomenon, known as currency volatility, has significant effects on both domestic businesses and international commerce. It is

essential to comprehend the mechanics of this volatility in order to develop practical solutions that reduce risks and promote economic stability.

Currency fluctuation presents a multitude of issues for enterprises operating in Somalia, affecting all aspects of their company operations. The unpredictability it adds to financial planning is one of the main issues. For businesses to make well-informed decisions about budgeting, pricing strategies, and investments, the economy must be steady and predictable. However, these planning procedures are hampered by Somalia's unexpected currency changes, which make it difficult for companies to project expenditures, revenues, and profitability with any degree of accuracy.

Furthermore, firms involved in international commerce find it more difficult to make decisions when there is currency instability. Like many other countries, Somalia is closely connected to the world economy through commerce. Both the price of imports and the proceeds from exporting are impacted by the regular changes in exchange rates. Such volatility can result in changing costs for completed items and raw materials, which directly impacts profit margins for enterprises that depend on imports. Currency fluctuations affect Somali products' competitiveness in the global market, which may have an effect on export volumes and earnings.

Due in large part to their presence in Somalia's economic environment, small and medium-sized firms (SMEs) are especially susceptible to the negative consequences of exchange rate volatility. These small businesses frequently lack the financial means and risk-management instruments used by larger organisations to successfully handle exchange risks. They could thus find it difficult to adjust to abrupt fluctuations in currency rates, which would make them more susceptible to economic uncertainty.

The financial stability of enterprises is impacted by currency fluctuation as well. Currency mismatches, in which income and expenses are expressed in separate currencies, can result from fluctuations in exchange rates. Businesses are exposed to financial risk in this way, since they might suffer losses in the event that the value of their assets that generate income (like exports) declines relative to the home currency. Such financial volatility may impact lending availability, investment choices, and the long-term viability of businesses.

Managing currency volatility is a difficult challenge for Somalian officials that calls for a careful balance. The obstacles that policymakers have in executing efficient monetary policies are exacerbated by the lack of a stable political atmosphere and a restricted financial framework. Interest rate modifications are one of the traditional methods that central banks in more stable economies utilise, although their relevance in Somalia's particular economic situation may be restricted.

The incapacity of policymakers to employ traditional monetary instruments makes it more difficult for them to successfully manage exchange rates. The larger economic difficulties the nation confronts may restrict the Central Bank of Somalia's ability to affect the value of the Somali shilling through its interventions in the foreign currency market. The presence of informal economic activity, restricted financial inclusion, and political instability all combine to provide a dynamic and frequently unexpected economic environment.

To solve Somalia's currency volatility, a multifaceted approach involving monetary policy interventions as well as more significant economic adjustments is required. Enhancing regulatory frameworks, fostering a more transparent and stable business environment, and fortifying financial institutions are all essential components of a comprehensive strategy. Improving financial literacy can also help individuals and businesses adopt risk management techniques and take more control over currency hazards.

Additionally important in reducing currency volatility are international alliances and collaborations. Cooperating with regional and international financial institutions can help with financial resources, policy coordination, and technical know-how. These partnerships may aid in the creation of a stronger, more adaptable financial system that is better suited to meet the difficulties brought on by swings in exchange rates.

Businesses and governments have serious difficulties as a result of Somalia's intrinsic exchange rate volatility, which affects financial planning, decision-making, and the country's overall economic stability. Because currency swings are erratic, flexible approaches including risk management, economic changes, and international cooperation are needed. Addressing currency volatility will be essential as Somalia

navigates its economic trajectory because it will create a climate that is favourable for long-term economic stability, investor attraction, and sustained company growth.

Exchange Rates' Function In Trade Balances

Exchange rates have a significant impact on the dynamics of international commerce and are crucial in determining trade balances. Their influence goes well beyond the confines of economic theory. Understanding the complex link between currency rates and trade balances is crucial for assessing the general sustainability and well-being of Somalia's external economic ties, given the country's particular set of economic issues.

The effect of exchange rate fluctuations on a country's export competitiveness is a key idea in this connection. A local currency's depreciation in relation to other currencies, like the Somali shilling, suggests that exports are becoming more competitively priced in outside markets. This phenomena raises the competitiveness of Somali products and services on a worldwide scale, which might result in higher export volumes. On the other hand, exports may cost more to overseas consumers when the local currency gains, which might reduce export competitiveness.

With the economy of Somalia dependent on major exports including cattle, agricultural goods, and remittances, the relationship between trade balances and currency rates is critical. The agriculture industry accounts for a large portion of Somalia's exports, which are especially susceptible to fluctuations in currency rates. A decline in the value of the Somali shilling might increase the exports' affordability and appeal, improving the trade balance.

Conversely, fluctuations in exchange rates have an impact on how affordable imports are. A local currency that is losing value might increase the cost of imports and hence decrease the amount of items that are imported. This dynamic influences not only the choices made by consumers but also the general makeup of imports, perhaps leading to a shift in favour of alternatives made domestically. These dynamics have a major impact on local consumption patterns in a nation like Somalia where factors like currency rates determine the cost and availability of imported commodities.

An important consideration for assessing trade balances is the broader impact on the current account, which encompasses trade in both commodities and services.

Variations in currency exchange rates can affect the cost and demand for a range of services, including banking, travel, and tourism. In Somalia, where official and informal economic activity coexist, evaluating the country's foreign economic contacts necessitates understanding the full ramifications on the current account.

The impact of exchange rates on trade balances is especially significant when considering Somalia's economic growth and recuperation. A positive trade balance may build up foreign exchange reserves and promote economic resilience when it is attained through increased export competitiveness and reduced import prices. In turn, these reserves are essential for maintaining the value of the local currency and enabling foreign commerce.

Exchange rate dynamics are closely linked to Somalia's economic ties with its trade partners. Because the nation depends heavily on imports for both production and consumption, changes in exchange rates have an immediate effect on the price and accessibility of necessities. This in turn shapes the general economic environment by influencing enterprises' cost structures and consumer purchasing power.

The link between currency rates and trade balances is made more difficult by political instability, which has long been a problem in Somalia. Political unpredictability breeds uncertainty, which in turn fuels dramatic fluctuations in currency rates that impact investor confidence and the broader economic climate. It emphasises how crucial a stable political system is to fostering an atmosphere that supports long-term economic expansion and favourable trade balances.

Keeping an eye on currency rates becomes a tightrope act for Somalian officials. Although a declining currency might increase export competitiveness, authorities also need to take into account the impact on the price of necessary imports and possible inflationary pressures. On the other hand, a rising currency might lower the cost of imports but provide difficulties for industries that rely on exports.

Making well-informed policy decisions requires a thorough grasp of how exchange rate swings affect current account dynamics. The sustainability of trade balances and foreign economic linkages over the long run must be taken into account by policymakers in addition to the short-term effects. Fostering a robust and dynamic

economy requires the establishment of strategic policies that address the underlying causes of exchange rate volatility, such as political unpredictability and a lack of adequate financial infrastructure.

Spending By Consumers In Somalia

The intricate interactions among many elements influence consumer spending in Somalia, which is influenced by the nation's distinct political, social, and economic environment. Somalia's consumer purchasing habits are shaped by a confluence of past events, present difficulties, and the populace's resiliency. Analysing the main forces behind consumer spending in Somalia as well as its overall effects on the country's economic dynamics is necessary.

In the past, Somalia has had lengthy wars, unrest in the political system, and decentralised government. An economy that is primarily informal has emerged as a result of these difficulties, which have had a substantial impact on the growth of a formal economic structure. In this setting, fundamental requirements are prioritised over discretionary expenditure, with consumer purchasing frequently being motivated by the necessity of everyday existence. People's purchasing patterns have been shaped by the lack of a strong financial infrastructure, which has also made it more necessary for people to rely on cash transactions and have restricted access to official banking services.

The high rates of unemployment and poverty in Somalia complicate the dynamics of consumer purchasing. A considerable segment of the populace faces financial difficulties, which curtails their ability to partake in discretionary expenditures. Affordability frequently influences consumer decisions, and households devote a significant amount of their money to necessities like housing, food, and medical care. This expenditure pattern is indicative of the general emphasis on providing for fundamental requirements in a difficult economic climate.

Dollarization is a significant factor affecting consumer purchasing habits in Somalia. A dual-currency system is facilitated by the common usage of foreign currencies, especially the US dollar, in day-to-day transactions. The official currency of Somalia is the shilling, however the dollarization tendency indicates a lack of trust in the native currency as a result of past economic difficulties. This dual-currency situation affects

pricing of products and services, influences consumer spending, and adds another level of complexity to economic transactions.

Without a strong banking system, there are few formal credit options available, and people frequently rely on unofficial credit agreements within their communities. The timing and kind of consumer purchasing can be impacted by this dependence on unofficial financial networks, since communities frequently pool resources to help one another out in difficult times. The population's susceptibility to economic shocks is nonetheless highlighted by this, as less formalised financial institutions could not have the same resilience or risk-reduction measures.

Remittances from the substantial Somali diaspora are one of the external variables that impact consumer expenditure in Somalia. Remittances are a major source of income assistance for households and a major driver of consumer expenditure. For many families, the steady stream of remittances has become a lifeline, allowing them to pay for basic needs like healthcare and education. Remittance dependence, however, also leaves consumer spending open to outside economic factors and world events that might affect the diaspora's income.

Somalia's economy is heavily dependent on the agricultural sector when it comes to industries that drive consumer spending. The functioning of the agriculture sector affects consumer spending since a large section of the population works in this industry. Factors including weather patterns, market accessibility, and agricultural output have a direct effect on farming households' earnings. Therefore, changes in agricultural productivity, especially in rural regions, may have unintended consequences for consumer purchasing habits.

More individuals are relocating to metropolitan areas in Somalia in quest of employment opportunities in recent years, contributing to the country's growing urbanisation. The shifting purchasing habits and tastes of consumers are partly caused by this generational transition. Urban customers frequently have greater access to a greater variety of products and services, especially those impacted by trends in globalisation. But differences in wealth and resource availability give rise to discrete consumer groups, with urban residents' buying habits differing from those of their rural counterparts.

There are several ways that consumer spending affects Somalia's economy as a whole. Although consumer spending is an important engine of economic activity, supporting the expansion of markets and enterprises, it also reflects the wider economic difficulties the country faces. A consumer environment distinguished by perseverance in the face of misfortune and focused on fundamental requirements is shaped by limited formal economic systems, political instability, and the predominance of poverty.

While addressing the structural problems impeding economic development, policymakers must create an atmosphere that encourages sustainable consumer spending. More robust and dynamic consumer spending patterns might result from initiatives that target income growth, financial literacy, and financial infrastructure development. Furthermore, consumer spending and economic growth may be positively impacted by initiatives to improve the formal banking system, lessen dependency on foreign currencies, and foster an atmosphere that is supportive of enterprises.

The intricate phenomena of consumer spending in Somalia are shaped by the country's resilient populace, prevailing economic problems, and historical legacies. The consumer landscape is shaped by a number of factors, including the importance of providing basic requirements, the dollarization trend, the influence of remittances, and the involvement of important industries like agriculture. Understanding and addressing consumer spending trends is crucial for companies, development efforts, and politicians in Somalia as they manage the country's economic trajectory and work to promote sustainable economic growth and enhance the welfare of the populace.

Conclusion

Finally, an examination of the interdependence of the variables Consumer Spending (CS), Exchange Rate (ER), Interest Rate (IR), and Trade (T) reveals intriguing patterns. The fact that ER and IR have a positive and substantial relationship shows that they both function as indices of economic activity, demonstrating the interdependence of exchange rates and interest rates in an economy. The inverse relationship between ER and T suggests that when the exchange rate rises, so trade will be falling, indicating a potential policy response to currency changes. While not

particularly strong, the minor positive connection between CS and T reveals a tiny but discernible link between consumer sentiment and taxes, potentially hinting that changes in consumer mood may have some influence on trade. The co-integration research emphasises the existence of the collection of variables, there are two strong long-run correlations, increasing the significance of these linkages over time. These findings add to a better understanding of the economic processes at work and have consequences for economic policy choices and projections in the context of the variables studied.

Hypothesis Discussion

H₁: Exchange rate has negative relationship with trade.

H₂: Interest rate has negative relationship with trade.

H₃: Consumer spending has significant positive relationship with trade.

Compare with previous studies

Previous study on the Somalia stock exchange is consistent with the negative association between trade and exchange rate. The devaluation of the Somali shilling is linked to lower exports since it raises the price of imported inputs, as Ahmed (2019) points out. According to economic theory, trade and export competitiveness are supported by stronger currencies (Ahmed, 2019).

According to research on the Somali stock market, high interest rates also have a dampening influence on trade volumes and economic activity, which is consistent with the previously mentioned negative association. In the informal banking sector of Somalia, Ali (2021) showed statistically significant decreases in import orders during times of peak lending rates. The expenses of trade finance and inventory holding increase when interest rates are high (Ali, 2021).

The favourable relationship between trade and consumer expenditure, however, is not consistent with Somalia-specific research. Due to significant import leakage, Warsame (2020) found that family consumption patterns had little impact on Somalia's foreign commerce. The majority of items bought locally are imported, which reduces the

benefits of local expenditure on trade stimulation (Warsame, 2020). In the context of Somalia, more investigation is required into this link.

Overall, interest rates and exchange rates show the anticipated trade connections seen in analyses of Somalia's economy. However, the link between consumer spending and trade needs to be reconciled with previous research that show a negligible impact of household consumption on trade flows in Somalia.

Recommendations

- Desire research will benefit from the finer category of retail trading extent as opposed to institutional buying and selling volume to further explore the kind of buyers chargeable for the big boom in buying and selling volume in Somalis alternate.
- Expectation, what are the effect at the political instability of Somalia on inventory buying and selling volume, export and import, and foreign money.
- Future directions recommend that impact of inflation rate on stock buying and selling extent of Somalia inventory alternate with USA inventory change and other countries.

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APPENDIXES

Unit Root Test

Unit root analysis Augmented Dickey Fuller (ADF)

At Level		LER	LIR	LCS	LT
With constant	<i>t-statistics</i>	-2.319922	-4.500816	-7.726743	-
3.265604					
	<i>Prob.</i>	0.1665	0.0003	0.0000	
0.0175					
		***	***	***	

With constant &	<i>t-statistics</i>	-3.765441	-6.777242	-7.807161	-
3.389037					
Trend	<i>Prob.</i>	0.0199	0.0000	0.0000	
0.0551					
		***	***	***	

Without constant &	<i>t-statistics</i>	-1.937251	-2.421614	-3.210083	-
1.470876					
Trend	<i>prob.</i>	0.0505	0.0152	0.0014	
0.1320					
		***	***	***	***

At first Difference

		d(ER)	d(IR)	d(CS)	
d(LT)					
With constant	<i>t-statistics</i>	-16.61085	-26.14429	-10.42504	-
13.34532					
	<i>Prob.</i>	0.0000	0.0000	0.0000	
0.0000					
		***	***	***	

With constant &	<i>t-statistics</i>	-16.59518	-36.09631	-10.40544	-
13.34086					
	<i>Prob</i>	0.0000	0.0000		
0.0000	0.0000				
		***	***	***	

Without constant &	<i>t-statistics</i>	-16.59860	-26.18558	-10.44532	-
13.36956					
Trend	<i>Prob</i>	0.7600	0.0000	0.0000	
0.5400					
		***	***	***	***

Unit root analysis Phillips Perron (PP)

At Level

LER

LIR

LCS

LT

With constant	<i>t-statistics</i>	-2.9249	-2.2919	-1.7314
-2.6223				

	<i>Prob</i>	0.0438	0.1754	0.4143
0.0897				

With constant &	<i>t-statistics</i>	-5.0462	-2.2866	-1.7256
-2.3880				

Trend	<i>Prob</i>	0.0003	0.4379	0.7343
0.3549				

Without constant &	<i>t-statistics</i>	0.4020	-0.0107	-0.7004
1.0045				

Trend	<i>Prob.</i>	0.7988	0.6783	0.4127
0.9170				

At first Difference

		d(ER)	d(IR)	d(CS)
d(LT)				
With constant	<i>t-statistics</i>	-9.1182	-2.6309	-9.6048
-11.6399				
	<i>Prob.</i>	0.0000	0.0880	0.0020
0.0001				

With constant &	<i>t-statistics</i>	-9.1000	-2.5886	-9.5876	-
11.6933					

Trend	<i>Prob</i>	0.0000	0.2859	0.0001
0.0003				

Without constant & t-statistics -9.1215 -2.6419 -10.5336 -
11.5316

trend Prob. 0.0000 0.0082 0.0000
0.0002

Correlation analysis

	ER	IR	CS	T
ER	1	0.68147802535930.11278050911600.4360046834826	-	-
IR	0.6814780253593	1	0.02185333925500.2986328502906	-
CS	0.11278050911600.0218533392550	0.0218533392550	1	0.0801342742253
T	0.43600468348260.29863285029060.0801342742253	0.0801342742253	0.0801342742253	1

lag length criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	13353.0275383891	NA	2.45e+40	104.3518	104.4072	104.3741
1	12872.3399519216	942.5983	6.50e+38	100.7214	100.9984*	100.8328*
2	12849.2411457160	44.57348	6.15e+38	100.6659	101.1645	100.8665

-						
12837.7772818669						
3	8	21.76343	6.37e+38	100.7014	101.4215	100.9910
-						
12810.6984708207						
4	8	50.56122*	5.85e+38*	100.6148*	101.5565	100.9936
-						
12804.2248238346						
5	1	11.88521	6.30e+38	100.6893	101.8525	101.1571
-						
12796.0139481855						
6	2	14.81806	6.71e+38	100.7501	102.1349	101.3071
-						
12792.3131127287						
7	5	6.563200	7.39e+38	100.8462	102.4526	101.4923
-						
12787.5093432058						
8	6	8.369067	8.08e+38	100.9337	102.7616	101.6689

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Granger Causality

Dependent variable: T

Excluded	Chi-sq	Df	Prob.
ER	4.9594862376847 75	2	0.0837647404121 8595
IR	0.0903755829918 3775	2	0.9558179704917 71
CS	0.0388325882892 6049	2	0.9807709880272 672
All	8.0626011348680 67	6	0.2335527806956 82

Dependent variable: ER

Excluded	Chi-sq	Df	Prob.
T	1.0903533249656 13	2	0.5797393560985 584
IR	0.7987215810944 595	2	0.6707486579172 361
CS	0.1066931152349 159	2	0.9480514011094 036

	1.9692153382832		0.9225079627505
All	62	6	349

Dependent variable: IR

Excluded	Chi-sq	Df	Prob.
	0.0121588487913		0.9939390179130
T	0412	2	393
	15.222365771993		0.0004948861182
ER	83	2	544339
	0.3946782563181		0.8209121916612
CS	789	2	92
	18.028663400534		0.0061609616903
All	39	6	35088

Dependent variable: CS

Excluded	Chi-sq	Df	Prob.
	0.0066477883948		0.9966816238234
T	37235	2	336
	2.5401275395790		0.2808137137759
ER	47	2	683
	0.1933945024574		0.9078308091950
IR	593	2	341
	4.6878341159391		0.5844273852392
All	13	6	181

10 Ramsey reset test

	Value	Df	Probability
	14.531682522		1.99415326603
t-statistic	53506	260	2057e-35
	211.16979693		1.99415326603
F-statistic	57508	(1, 260)	2057e-35
	156.95774188		
Likelihood ratio	60658	1	0

RESUME

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Education

Degree	Education Unit	Graduation Date
Master	Economics and Finance	February, 2024
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