NEAR EAST UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

DEPARTMENT OF BANKING AND FINANCE

MONETARY POLICY ON BANK CREDIT RISK IN AMERICA

(THE AMERICAN BANKING SECTOR)

MSc. THESIS

EMMANUEL PAYE SOMWARBI

Nicosia

JUNE, 2022

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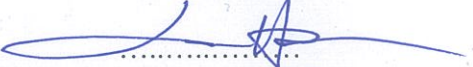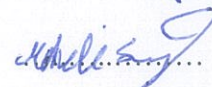**Supervisor**

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JUNE, 2022

Approval

We certify that we have read the thesis submitted by EMMANUEL PAYE SOMWARBI "MONETARY POLICY ON BANK CREDIT RISK A CASE ON THE UNITED STATES OF AMERICA (1812-2020)" and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master in Banking and Finance.

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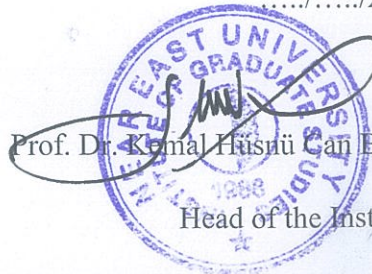
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Declaration

I hereby declare that all information, document, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guideline of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced and information and data that are not original to this study.

EMMANUEL PAYE
SOMWARBI

Day/Month/Year

Acknowledgement

I would like to express my gratitude to Assist.Porf.Dr. Ahmed Samour, who served as my thesis supervisor. It was because of your tireless conatus in making sure that this thesis was done in the best way that got me this far, and also a very big gratias tibi to Assoc.Prof.Dr. Turgut Tursoy, Head of the Department of Banking and Finance, who in his capacity sought the best interests of all students at the Near East University, particularly in the Banking and Finance Department, and to all the instructional staff in the Banking and Finance Department who took upon their time and impacted scientia in Banking and Finance

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Abstract

An important aspect of this study is how monetary policy affects American banks' ability to service their debt obligations. A team from the United States of America will carry out the inquiry. It examines the impact of politics on monetary policy as well as the impact of economic and credit indicators on banking sector risk. The study also examines how political parties may influence interest rates. For example, the likelihood of natural catastrophes and other risks, the local economy, bank credit totals, bank capital, and bank lending growth are all factors that are considered when determining banks' willingness to take on risk. The risk of natural catastrophes and other threats is also taken into account. The global financial crisis of 2007–2009 is also examined in this article from the perspective of credit risk transfer (CRT). Commercial banking transactions in the United States, such as lone sales, securitization, and credit derivatives, are included. The researchers relied on GDP growth and domestic credit as dependent variables, whereas household income and the real interest rate were treated as independent variables for their study. The variables included in the research were used to investigate the relationship between monetary policy and bank credit risk. The long-term connection between the variables was shown to be substantial and positive in the study's results. The researchers came to this conclusion.

Key words monetary policy, Household, Real Interest Rate, Gross Domestic Product and Domestic Credit.

Summary

Because this research explores the impact of time but also focuses on data from the United States and specific credit metrics for the first time, it is of great relevance. To put it another way, since it is a first, this research has a significant impact. This is the first time any of these aspects have been brought up. As a consequence of obtaining permission from Congress to circulate currency, the US Federal Reserve Bank has been able to stabilize the economy, maintain exceptionally low inflation, and create jobs. A decade earlier, in 1913, Congress had given the central bank power to issue currency. When it comes to analyzing how monetary policy affects banks' credit risk, we consider these variables: household, real interest rate, GDP growth, and domestic credit. An in-depth analysis of the procedures used by the Federal Reserve in the United States to address the aforementioned challenges is thus required.

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List of Abbreviations

MPBC   Monetary Policy on bank Credit

GDP   Gross Domestic Product

RIR   Real Interest Rate

HO   Household

DC   Domestic Credit

UR   Unit Root

ARDL   Autoregressive Distributed Lag

BT   Bound Test

GC   Granger Causality

CHAPTER ONE

1.0 Introduction

Today much management of banks is required to make risky decisions in order to safeguard their assets and grow their profits. As a result of taking on excessive risk or when structural or macroeconomic conditions change unexpectedly, banks may suffer huge losses. If a bank wants to optimize its value or earnings, it must choose between riskier or less risky assets and manage its obligations. Because of the virus-like microeconomic challenge banks are presently facing, these choices are impacted by informational abnormalities, regulatory and macroeconomic factors. The researcher used household credit, GDP credit, real exchange rate credit, and domestic credit in the study to investigate the impact of monetary policy on bank credit risk.

Monetary policy, according to Robert Johnson, a finance professor at Creighton University in 1997, is the technique through which the central bank of a nation controls the quantity of money that is accessible in the economy of that nation. Central banks use monetary policy to control the amount of money and credit in the economy to maintain inflation, economic growth, and employment all on track. The bank will benefit from this.

Policy on monetary matters is set by the Federal Reserve, a government agency in the United States. A "dual mission" mandate has been given to the Federal Reserve by Congress, which mandates that they simultaneously expand their service offerings and keep the prices of their products stable. This shows that the Federal Reserve's principal goal is to raise productivity while decreasing the possibility of an inflation increase. The Fed's primary goal has been to keep the unemployment rate between 3.5 and 4.5 percent, despite the fact that it does not have an official target range.

While this may be the case, the Federal Reserve's goal is to keep inflation at or below 2% annually. The Federal Reserve has achieved its goal of encouraging a functioning economy when unemployment is low and inflation is about 2%. Individuals and businesses can now spend and invest their money while still preserving sufficient cash reserves.

The Federal Reserve's influence comes from these two major economic factors.

In order to achieve its objectives, the Federal Reserve uses its authority to regulate the amount of money in circulation.

These two significant components of the economy are the Fed's primary sources of influence. "By exercising its authority over the money supply, the Fed carries out these goals." In 1977, a Congressional dual mandate gave it these tasks, and it may now use a few mechanisms to carry them out.

(Kashyap and Stein, 2000), Government policymakers are concerned that the lending channel's effectiveness in communicating monetary policy could be harmed by frictions in the channel. As a result, the amount of pass-through may vary depending on the lenders' features, such as their liquidity or exposure to liquidation risk.

In 2002, Campello published a book entitled As well as Gilj, Loutskina, and Straham (2016; see also Credit supply is influenced by both local inputs and aggregate outputs through the use of internal capital markets and branching. Since the output of financial intermediation is directly linked to local credit concentration, this relationship should be stronger between local credit supply and local credit concentration.

Concentration in lone market is the subject of **Scharfstein and Sunderam (2013) (as well as Scharfstein and Sunderam (2016)** According to National Community Reinvestment Coalition (NCRC) statistics on small business lending, when monetary policy tightens, banks that grow deposits in concentrated markets react (shrink) more harshly than other banks.

Drechsler, Savov, and Schnabl in 2017 recent empirical research in this field utilizes micro-level data to detect such concentration effects, raising the question in the literature of whether local market concentration might also affect the efficacy of transmission. Consolidation in the deposit market has been linked to the cost and flow of deposits.

According to **HMDA** and Fannie Mae's Single Family Loan Performance Data, credit concentration diminishes the sensitivity of mortgage rates and refinancing

activity to MBS yields in the county where the data is collected. There is a conceptual difference between the two methods of focusing one's attention. In the context of financial intermediation, a lender's local market strength in obtaining money is referred to as deposit concentration. When it comes to borrowers' choice sets, however, credit concentration refers to an output of financial intermediation; it represents the amount to which a borrower has external choices when dealing with a lender. Although a lender's local cost of funds should be directly related to the concentration of its local deposits, this may not be the case.

It's important to note that credit markets play a critical role in transferring the effects of monetary policy from the banking sector to the real economy, as is well known. If balance sheets are already weak, higher interest rates may tighten the economy, making some borrowers more vulnerable to changes in lending circumstances. As a result, monetary policy may have nonlinear effects. The credit channel mechanism of monetary policy has an impact on both the efficiency of financial markets and the ability of borrowers and lenders to meet their respective demands. As a result, borrowers in the loan market face longer wait times.

"Walsh, 2010" (Walsh) Higher rates of interest not only reduce profits for companies, but they also increase the costs of lending agencies and reduce the efficiency with which loans are distributed. Changing interest rates aren't the only way to tell if your credit situation has changed. Macroeconomic equilibrium could be affected by credit market inefficiencies. As a result, it is critical to understand how banks communicate monetary policy decisions to the current economy. Both the balance sheet channel and the credit channel can be used to access these channels. Credit effects play a role in how monetary policy is passed along because parties to credit agreements don't always know all the details.

It's (Diana and Carla, 2014). There should be a distinction between the channels of credit and the channels of risk-taking. Under an expansionary monetary policy, lending to good borrowers falls under the credit channel, while lending to risky borrowers falls under the risk-taking channel. Lending and the balance sheet are two ways to observe the effects of monetary policy. Lenders benefit from lower interest rates because they encourage more lending, whereas high interest rates have a negative impact on borrower balance sheets.

1.1 Statement of the problem

Between 1819 and 2008, the United States Federal Reserve tightened its monetary policies on banks as a result of the first financial panic. In the wake of a number of key economic events, high rates of bank failure have been on the rise. History has not been taught and the narrative of this disaster has not yet been written. The first bank failure since the COVID-19 outbreak began seems like a good time to look into the history of bank failures and the role the FDIC has played in protecting American citizens.

This crisis was reported to have caused the first bank failure in West Virginia in 2020. However, this bank was already in financial trouble. Even though this setback took place during the height of the COVID-19 economic shutdown, this failure has not been attributed to the pandemic.

Purpose of the study.

Much research has examined the effects of monetary policy on bank credit risk, but none of these studies has examined how monetary policy on bank credit risk contributes to economic stability. Large countries like the United States place a high priority on monetary policy when it comes to protecting their banks against risky loans. "As a result of their contacts with the government, industry, businesses, and individual consumers, American banks play a critical role in the economy's overall stability."

1.3 Research questions

The most challenging and face saturations in our banking sector today become our question for this research

What is the monetary policy on bank credit risk?

How does monetary policy on bank credit risk affect price stabilities in America?

How does monetary policy on bank credit risk cost inflation?

How does monetary policy on bank credit risk relate to government, industry, companies, and individual?

What are some of the monetary policy on bank credit risk that has been put in place to control bank failure since the coved19 pandemic in America?

1.4 Research hypotheses

Monetary policy influenced bank credit

Monetary policy on bank credit risk has a long-run relationship GDP growth

1.4.1 The null hypothesis

Real interest rate has a long-run correlation with household

Household influenced GDP growth and domestic credit

1.5 Significance of the study

In light of the United States' status as the world's foremost military and economic power, its actions have global ramifications. Because of the importance of money in our day-to-day lives and the progress of a nation, academics have determined that banking and finance should be given top priority. This is because the American banking sector has had to deal with a lot of panic situations. American banking policy and bank credit risk examines how the country's economic and credit factors influence the sector's level of risk. The banking industry in the United States is the subject of this investigation. Several factors, such as the macroeconomic situation, the volume of bank lending, and the rate at which loan growth is taken into account are all taken into account.

The Federal Deposit Insurance Corporation (FDIC) provides a window into how monetary policy affects bank credit risk in the US banking sector and in everyday life in the country (FDIC). If one of the FDIC's member banks were to fail, depositors' money would be protected up to a certain amount by the agency. As a result of the FDIC, a bank run is no longer a substantial threat to the financial system in America. It is a source of great pride for the FDIC that "since 1933, no depositor has lost a dime of FDIC-insured funds." Government policymakers will benefit from

this research since it will guide them in formulating policies that would protect the banking industry against natural disasters and their associated costs. Policymakers will benefit from this study since it will help them develop better policies.

1.6 Limitation

The scope of this work will somehow be limited to America; it will point out some instances about other countries. This study will point out of the key important of monetary policy on bank credit risk in the United States and other countries that have similar situation. The date used in this work was taken from the web site of the World Bank and it's accurate.

1.7 Definition of terms

Monetary policy Short-term borrowing (banks borrowing from each other) or the money supply can be managed by the monetary authority of a country using this method. This form of borrowing from each other to meet short-term needs is an example of this form of borrowing. To maintain public confidence in the currency's acceptability and stability while also stabilizing its value, this is done frequently when inflation or interest rates are high.

As an alternative definition, managing an economy's money supply and its creation methods is referred to as implementing monetary policy. There are numerous macroeconomic variables that can be affected by central bank intervention in the amount of money in circulation. Inflation and consumption are two of the most obvious examples.

Bank credit risk. The lending institution may suffer a loss if a bank borrower or counterparty fails to live up to their obligations in accordance with the terms agreed upon.

CHAPTER TWO:

Literature Review

2.0 Introduction

It is important to read past literature before conducting research on a particle topic, it is very important to read past article or documentary relating to the topic because that will give you an edge over the topic and in lighting your mind on some past happening.

The sources of this literature will contain some published article, books, personal opinion of publish sevens and personal opinion of past researches that had conducted research on similar topic relating to this work. Monetary policy on bank credit risk in the United States has been a very challenging topic in academy. Over the past year researcher had deem it necessary to carry out a research that will enable them better under how the U S monetary policy work on bank credit, knowing the fact that the United States has the largest current account deficit.

2.1   Theoretical Framework

The wide verities of hypothec guider in this work are evident to better understand the content of U S monetary policy on banks credit.

2.1.1Theories of monetary policy

The monetary policy of the central bank is based on the use of these tools. Banks' performance is closely monitored by central banks via the use of policy rates. Monetary policy has an impact on bank risk-taking. "A bank's risk appetite might be affected by the monetary policies of the central bank. Furthermore, monetary policy has an impact on the future of the economy through influencing the risk of credit. In addition, monetary policy affects banks' balance sheets through influencing the perception of risk. As a result, the bank's balance sheets are altered and revalued. Financial stability is prioritized by the authorities in charge of the country's monetary policy while implementing an expansionary one. This is because investors want greater returns, while banks also want higher returns to meet their objectives (Kim, 2014). However, banks' risk appetites are not only influenced by monetary policy. Interest rates are often set in accordance with an inflation goal set by the majority of central banks. In some wealthy nations and in certain developing economies, this is the case. According to previous research, REPS's short-term low interest rates harm banks' lending practices. This is a turning point in the long run because the impact was so positive. This tipping point has been examined by a wide range of academics. Many studies have examined the impact of different countries' monetary policies and even the lending practices of individual commercial banks on economic growth. The effect of monetary policy on capital flows has been studied by others. The effect of non-performing loans on the economy has been examined in a number of studies. The literature on monetary policy's risk-taking channel, in particular in the United States and the European Union, is extensive.

2.2 Monetary policy regime

Since Henry Thornton coined it (1802), central banks have been associated with the term "entity that governs how a country controls money production." After more than a century of working with the Federal Reserve System, it is now possible to establish some generalizations about the institution's operations.

It is the job of the Federal Reserve to create new money and set the parameters for the monetary system.

When the Fed's systematic behavior and the economy's dynamic behavior intersect, the monetary regime changes. This is a long-term relationship. Interaction between

these two factors produces a monetary system. Because the Federal Reserve is dedicated to establishing and maintaining a target interest rate, the central bank has indirect control over the issuance of money. There can never be any doubt about the genuine value of money because of the Federal Reserve System's existence.

Over time, monetary policy has evolved, but no one agrees on how best to control the system to keep the economy stable. The unstable nature of the monetary regime may be a factor in this lack of agreement. Re-appointment of policymakers can change the characteristics of the current money system. Because of this, unfettered communication amongst central bankers is of the utmost importance, and economists' primary goal has been to learn from previous experience. Interaction between these two elements is essential. Create a reliable nominal anchor by establishing a long-term price stability assumption. As a means to this end, an individual must act in a predictable fashion; that is, they must adhere to some form of directive.

2.3 Great reason

One definition of a bank run is when large numbers of clients rush to withdraw their money from a financial institution for fear that the financial institution may be forced to close its doors in the near future. The term "run on the bank" is used to describe this phenomenon. The phrase "run on the bank" describes this type of financial disaster. People remove money from their savings accounts because they think that the bank is bankrupt or will soon be bankrupt. This practice, which is also known as "collateralized debt obligations," explains this predicament. For example, they might keep the money in a bank account or invest it in other assets, such as government bonds, precious metals, and diamonds. In a fractional reserve banking system, only a small portion of a bank's assets are held in cash, resulting in this problem. In countries like the United States, the fractional reserve system is used. "Capital flight" is the term for when an individual or group shifts their financial assets to another institution. The more people withdraw money from a bank, the greater the risk of a default, which in turn encourages more people to withdraw money from the bank. It is possible that the bank will be unable to meet its financial obligations due to the fact that it does not have any cash on hand. An institution's response to a bank run may include limiting the amount of cash that a customer can take, prohibiting

withdrawals altogether, or quickly obtaining more funds from other institutions or the central bank.

A banking panic, also known as a bank run, is a form of financial crisis that occurs when a run on deposits hits several banks at the same time. It's not uncommon for clients to suddenly feel the impulse to change their possibly unsafe deposits into cash or to fully exit from their local financial transaction system. When all of a country's banking assets are lost at once, it's referred to as a "systemic banking crisis." This may happen in any country at any time. This economic crisis may drag on for a while longer since local businesses and consumers are unable to access credit as a result of the domino effect the collapse of the banking sector has had on the economy. Former Federal Reserve chairman Ben Bernanke claims that the Federal Reserve System was to blame for the Great Depression and that bank runs caused a major amount of the economic harm that happened during this period. Following financial crises, economic activity lost up to 20% of GDP in the 1970s and 2007, and 13 percent of GDP was spent on clean-up operations. Between 1970 and 2007, this occurred. The expenses of crises that happened between 1970 and 2007 have been averaged over this time span.

No matter how beautifully it is presented by the media, the fundamental test is what matters most under the Volcker-Greenspan non-activist approach. The Great Recession, as predicted by Goodfellow and King using the NK model, has officially begun this time (1997). The subsequent decline in the economy was believed by many to be the result of a breakdown in financial intermediation. As a result, some critics of the Federal Reserve claimed that "inflation targeting" was a factor in the onset of the 1930s depression.

According to Curdia and Woodford (2009), financial security is not an issue, according to the authors. These kinds of justifications are frequently offered. Low interest rates, according to popular belief, were the catalyst for the housing market's boom-bust cycle that began in the early 2000s. The Great Recession was the result of this (Taylor 2009).

2.5 The exciting of the central bank, the effect of monetary policy on exchange rate in the United States of America?

The United States Federal Reserve System was established as a result of the Federal Reserve Act of 1913. Created by the Federal Reserve Act of 1913, the Federal Reserve serves as the central bank of the United States. This was done in order to keep the American economy growing.

The goals, structure, and responsibilities of the Federal Reserve System are all laid out in great detail in this act. Congress has the power to amend the Federal Reserve Act and has done so numerous times in the past.

Before 1913, investors routinely worried about the safety of their bank deposits, leading to a number of panics in the financial world. J.P. Morgan, the private financier who rescued the government in 1895, frequently extended lines of credit in order to maintain the financial system's viability. The Federal Reserve Act of 1913, signed into law by President Woodrow Wilson, gave the Federal Reserve the power to reshape money and the means to keep the economy stable.

The Federal Reserve System established a dual mandate with the goal of maximizing employment and ensuring price stability. Boston, New York, Philadelphia, Cleveland, Richmond, St. Louis, Atlanta, Chicago, Minneapolis, Kansas City, Dallas, and San Francisco are among the cities home to one of the Federal Reserve Banks. Each regional district is overseen by a different Federal Reserve Bank.

The President of the United States nominates the seven members of the Board of Governors, who must be approved by the Senate before they can be confirmed by the Senate. Because the president's power is limited, each governor's term is limited to 14 years, and their appointments take place every two years. Also mandated by the legislation is a selection process that ensures that nominees come from all of the country's major economic sectors.

Current federal reserve president	
Name of president	Bank location – district
Kenneth C. Montgomery	Boston 1
John C. Williams	New york 2

Patrick T. Harker	Philadelphia 3
Loretta J. Master	Cleveland 4
Thomas I. Barkin	Richmond 5
Raphael W. Bostic	Atlanta 6
Charles L. Evans	Chicago 7
James Bullard	St. Louis 8
Neel KashKari	Minneapolis 9
Esther L. George	Kansas City 10
Meredith Black	Dallas 11
Mary C. Daly	San Francisco 12

The Federal Reserve, the country's central bank, uses open market operations, discount rates, and reserve requirements to formulate overall monetary policy. At its disposal, it has three main resources.

According to Federal Reserve regulations, lenders of federal funds must adhere to the rate set by the Federal Reserve when lending federal money to other lenders. These interest rates are set by the Federal Reserve and passed on to financial institutions by the

One facet of open-market operations is the ability of private citizens to acquire and sell government-issued assets.

Known as the discount rate, financial entities such as banks and other financial institutions pay interest when they borrow money from the reserve. The interest rate on the loan will be calculated at this rate.

To analyze the supply and demand of money balances held by depository institutions such as commercial banks, it may be necessary to employ all three instruments we've discussed simultaneously. If you use the tools we've discussed, you can do this. The interest rate used for government funds is influenced by the total quantity of money deposited with the Government Reserve. This can be seen in the following example: Banks and other depository institutions, such as hedge funds, use this interest rate when lending the funds they have on deposit with the Federal Reserve to other financial institutions. This rate may be used by other financial institutions as well.

One bank calculates the overnight borrowing interest rate, which is the principal component of the federal funds rate. The overnight borrowing costs of a bank are reflected in the federal fund rate, which is a measure of the interest rate one bank charges another bank for overnight borrowing. In 1913, the federal funds rate was first established by the Federal Reserve Board. Financial organizations routinely borrow money from one another in order to meet the demands of their consumers. Now that the nation's monetary policy is in the hands of the Federal Reserve, the government's previously loaned funds are no longer under their control. They did this so that the Federal Reserve could be built.

Short-term and long-term interest rates are compared to the federal funds rate, which serves as the benchmark. Another factor that influences currency exchange rates is monetary policy. In addition to inflation, this aspect has an impact on other economic variables, such as unemployment. It is the responsibility of the Federal Open Market Committee (FOMC) to convene eight times a year to discuss both the status of the US economy and the global financial system. During this process, it is decided whether or not monetary policy and the federal funds rate should be changed and what those adjustments should be.

The Federal Reserve's open market operations primarily involve the purchase and sale of securities issued by various levels of government (such as US T-bills). The word "quantitative easing" is used to characterize these measures, which are known as quantitative easing. This method is the most significant when it comes to establishing a monetary policy strategy. The short-term goal of these initiatives is to encourage the central bank to keep its reserves at their former levels. This will allow for a change in the federal funds rate, which will have the anticipated effect on the cost of money.

For the purpose of increasing the market's liquidity, the Federal Reserve decided to buy T-bills on the open market. The Federal Reserve intended to increase market liquidity, so they did this. Consequently, interest rates, which are commonly referred to as the cost of borrowing money, have reduced as a result.

The discount rate is the interest rate banks and other depository institutions pay when they borrow money from the Federal Reserve. According to the federal regulations,

authorized depositories can pursue primary, secondary, and seasonal credit in order to get credit in line with the federal regulations.

While "discount rate" is usually used to refer to it, each form of credit has its own distinct interest rate, which is the norm rather than the exception.

Short-term lending to banks and depository institutions with a solid reputation in the financial sector is the principal use for short-term lending at this rate. Typically, this rate is higher than that offered by competitors in the short-term lending market.

The primary credit has a lower interest rate than the secondary credit, which has a slightly higher interest rate than the primary credit. To qualify for the secondary credit rate, a facility must be suffering from financial difficulties or have difficulty getting funds.

Financial aid is also offered to seasonal groups like farmer's banks, which can utilize loans intended for usage during the proper season. Seasonal interest rates for loans are calculated using the typical situation of the market.

2.6 Supply and demand for driving dollar value

There is a demand for dollars when the United States sells goods or services to clients in other nations because those clients in other countries must pay for the items and services that they receive in dollars. So, in order for them to complete the payment, they will have to first sell the currency of their home country and then purchase it back with the money of the United States.

Payments for bonds issued by the United States government or large American enterprises to create capital and then purchased by foreign investors will also be needed in dollars. They may be bought by foreign investors. These bonds are either issued by the United States government or by large American corporations. In the same way, foreign investors who want to buy shares in American firms face the same challenges. There is a requirement that they exchange their currency for dollars in order to buy the shares.

A rise in demand for dollars, in turn, increases the supply of dollars, which eventually increases the value of the dollar relative to other currencies being traded in order to acquire dollars. These examples explain how this process works.

In addition, the US dollar is seen as a safe haven currency in times of global economic turmoil. There is a tremendous demand for dollars, even if the economy of the United States fails to improve. The United States faces the danger of a sell-off if the economy suffers and spending slows, for example, due to increased unemployment. Suppose the United States is faced with the potential of a sell-off, in which case the proceeds from the sale of bonds or stocks would be converted back into the country's own currency, the dollar. In other words, a sell-off might be a return of the money that was gained through the sale. The dollar's value drops when foreign investors buy their own country's currency back.

2.7 Technical factors that impact the dollar value

When it comes to determining whether or not the supply of dollars outweighs the demand for dollars in the future, traders are the ones in charge. So, keep an eye out for anything that could have an influence on the value of the dollar. This includes the government's release of a wide range of economic data, including payroll and GDP figures, as well as other information that might help us gauge the health of the economy. For example, you may get statistics on payrolls and GDP here, among other things. Furthermore, in order to gauge the general economic attitude, we must take into account the views of important market players, such as investment banks and asset management businesses. As a result of their enormous influence on the market, these prominent market actors are included below. Rather than being driven by the supply and demand of the economy, the market is frequently influenced by how people feel about it.

There are seasonal components such as support and resistance levels and technical indicators entrusted to traders to form historical patterns. This is done in order to include a second form of prediction into the whole procedure. Market players believe

that these patterns are cyclical and that they may be utilized to predict the future movement of prices with high accuracy.

2.8 What causes the U S dollar to rise?

The demand for the United States dollar is the primary factor that determines the direction of the dollar's price, although there are a number of other factors that contribute to the rise of the dollar. The value of the dollar is inversely proportional to the amount of demand there is for it. On the other hand, if there is a decrease in demand, the value will also decrease. When international parties, such as citizens of other countries, central banks of other countries, or financial institutions of other countries, demand more dollars, this drives up the demand for the dollar. Due to the fact that the dollar is the reserve currency for the world, its demand is typically quite high. Inflation rates, trade deficits, and political stability are some additional aspects that play a role in determining whether or not the value of the dollar increases in comparison to other currencies.

2.8.1 What are the factors that influence the exchange rate?

Many variables influence the exchange rate of currencies, including currency reserve status, political stability, inflation, interest rates, trade deficits and surpluses, speculative activity, and government debt.

When compared to the value of another currency, a currency is said to be weak if its value has decreased. Countries with poor economic fundamentals or a government that is ineffective tend to have weak currencies because of these factors. A weak currency may be the result of high levels of political instability and high levels of corruption, as well as high levels of public debt and trade deficits.

2.9   Related literature

According to recent research, CRT instruments can have a significant impact on bank lending. Loans in the United States benefit from securitization, according to Loutskina (2011), as it reduces the need for liquid assets and increases the economic

vulnerability of businesses. As a result, loans will fare better. The conventional method of exchanging money Additionally, there have been studies looking at large samples from all over the world, such as those done by Panetta and For Pozzolo (2010) and by Gambacorta and Marques-Ibanez (2011), in addition to those already mentioned (2009). The most recent study (2009) came to a conclusion. According to Hirtle (2009), a small amount of evidence suggests that the use of credit derivatives by US bank holding companies is linked to increased loan growth. Carbó-Valverde et al. (2011) studied a large amount of data from Spanish banks and businesses. The researchers found that during normal times, credit restrictions on securitized businesses are less strict, but that during economic downturns, credit restrictions are more severe. Securitization has been proven to be taking place despite the fact that these companies' lenders actively participate in it. This statement has no additional support in the form of citations.

According to another line of linked research publications, CRT's effect on banks' willingness to take risks is being examined empirically by researchers. CRT operations have been shown in preliminary studies to assist banks in risk management. This activity has been linked to bank instability in more recent studies (Cebenoyan and Strahan, 2004). Keys et al. (2010), claim that the rise of the securitization industry has resulted in a considerable easing of lending criteria in American banks. The aggressive pricing methods for loans are also noted by Kara Prior et al. (2010). Asset securitization has proven to be a difficult business for European financial institutions. As a result of the turmoil brought on by the financial crisis, Purnanandam (2011) claims that financial institutions in the United States are becoming increasingly engaged in the rising number of mortgages that fail to be repaid. According to Michalak and Uhde (2010), there is a negative correlation between the length of time left until European banks are forced to declare bankruptcy and the activities associated with securitization.

This subject has generated a great deal of published written material. Many studies have come to the same conclusion about the key parts of CRT, such as limits on money and capital (Pennacchi, 1988) and the establishment of rules for managing credit risk that are more effective. As seen from this perspective, Affinito and Tagliaferri (2010) and Panetta and Pozzolo (2010)'s literature evaluations are both

comprehensive and thorough. There is a strong correlation between the policy rate and risk in the vast majority of the hypotheses that have been tested so far. Alternatively, they seem to believe that monetary ease encourages risk-taking behavior. This shouldn't come as a surprise, given the recent severity of the financial crisis.

America saw a period of significant change in the environment in terms of financial regulatory bodies throughout the war years. The McFadden Act of 1927 established limitations on both the number of branch sites and the geographic zones in which federally chartered banks were able to do business in order to prevent "destructive competition." Extra legislation governing the intrastate branching of national banks was required since national banks were expected to do business inside their home states. It was also mandated that all national banks must retain a physical presence in their respective states. Changes to the maximum amount of state-wide branching permitted over time were permitted. As an update to the McFadden Act, Congress passed the Glass-Steagall Act in 1933, which severely restricted interstate banking. Commercial and investment banking were likewise split by the legislation that enforced interest rate regulations. Achieving this objective was made possible because of the division of commercial and investment banking. Non-bank banks, "non-bank offices," and bank holding companies were formed by financial firms as a response to constraints imposed by regulatory authorities. The Bank Holding Company Act of 1956 prohibited bank holding companies from expanding their network of branches by the acquisition of other institutions. This was done in order to keep bank holding corporations from getting too big. Several states in the New England region relaxed a variety of rules during the 1970s, making it easier for enterprises to grow into adjacent states.

During the 1980s and during this period in general, a state-by-state movement of deregulatory activity took place. Throughout the decade of the 1980s, this practice was used. The Riegle-Neal Interstate Banking and Branching Efficiency Act (IBBEA) of 1994 repealed the restriction when it was introduced into law. This will have the largest impact on the site's restrictions.

It is common knowledge that variations in exchange rates are difficult to foresee or even explain after the fact. However, the topic of how these movements interact with

other economic and financial variables is one that is still being debated today. In recent years, a growing body of research has been published that investigates how fluctuations in exchange rates not only affect the outcomes of macroeconomic policies but also have the potential to affect financial conditions and credit developments (Blanchard et al., 2015, Shin 2018, Ghosh et al. 2018, Hofmann et al. 2019, Bank for International Settlements (BIS), 2019, Carstens 2019). These studies investigate how fluctuations in exchange rates affect not only the outcomes of macroeconomic policies but also have the potential to affect In turn; these factors may have an effect on the prospects for the macroeconomic environment.

The most important hypothesis is that a rise in the value of the currency would have the effect of loosening domestic financial conditions, which, in turn, would stimulate an increase in both the demand for and supply of domestic credit. This would be supported by the fact that this would be a consequence of an increase in the value of the currency. In this sense, an appreciation may potentially have an expansionary effect, which is in contrast to the conventional concept that predominated in the older literature, which maintained that an appreciation was contractionary because it resulted in a reduction in net exports. The conventional concept that prevailed in the older literature was that an appreciation was contractionary because it resulted in a reduction in net exports. In addition, an appreciation that brings about an increase in the domestic provision of credit could contribute to systemic risk, which may require a response from the policymaker in charge of macro prudential regulation.

An increase in the value of the local currency has the ability to stimulate growth in the domestic credit market via a number of distinct pathways, some of which may be operational at the same time and mutually reinforce one another (see, e.g., Carstens, 2019). An increase in the value of the exchange rate is said to contribute to an increase in both the net worth and collateral values of participants in domestic markets, as stated by Krugman (1999), Céspedess et al. (2004), and Bruno and Shin (2015). This, in turn, can both boost borrowers' capacity to amass debt and remove limits placed on lenders' ability to offer it. In other words, it can be a win-win situation.

There are several ways in which currency appreciation affects both the demand for and the supply of credit within an economy. For example, it may lower the perceived

risk of lenders and boost their feeling of luxury among borrowers (as the cost of imported goods or services decreases). It's possible that a rise in exchange rates might lead to a rise in systemic risk if additional lending has an influence on local asset values or is supported by borrowing from across the border. Increases in exchange rates may have an even greater impact if the additional credit is financed by borrowing from outside the country. Additional credit from a nearby nation might have an impact on local asset price, therefore this could also happen in certain situations (Gertler et al. 2007; Borio, 2014; Bruno and Shin 2015a, b; IMF 2017; and Baskaya et al. 2017).

In this paper, we investigate the relationship between changes in exchange rates and domestic credit in a sample of 62 countries over the time span of 2000 to 2016, and we inquire as to the degree to which macro prudential policy can mitigate the effects of currency fluctuations on the cycles of domestic credit. We also investigate the potential complementary role that targeted curbs on inflows could play in situations in which robust developments in credit in turn contribute to rises in the amount of money borrowed internationally by financial institutions and corporations.

The following is an explanation of the asset substitution argument. When it comes to conditions that are quite typical, a decline in the real yield on safe assets will result in a reduction in the weight that these assets carry in bank portfolios.

Risk-neutral banks are likely to want to buy more risky assets, which will make the overall level of risk on the market go down. Until, in a state of equilibrium, returns on both kinds of investments are once again equalized to one another. Investors who don't like taking risks will usually rebalance their investment portfolios in the same way no matter what. Those with a lower absolute risk aversion will, however, reduce the number of risky assets they own). "Search for yield" is the operating principle behind a related system. Banks and other financial institutions that long-term obligations, such as those made by insurance firms and pension funds, need to coincide with the when compared to the yield they earn on their assets, the yield they pledge on their liabilities is lower (Rajan, 2005).

A company's ability to make a profit from securing loans is limited when interest rates on loans are low. When prices are low, businesses must put their money into

riskier assets if they want to compete in the market. (It is likely that the policy rate and the yield on their commitments will have a beneficial pass-through.) Risk-free asset interest rates may have to be renegotiated if they continue to be low for a lengthy period of time or if a financial institution is still investing in risk-free assets. Alternatives include renegotiating long-term contracts with the financial institution (or defaulting on them). An increase in the amount of risky assets (and thus a greater improvement in the likelihood of meeting its commitments) is analogous to an increase in managerial pay based on absolute yields. The more a manager can earn by investing safely, the lower the incentives are for managers to take on more risk, a move toward more risky assets and a larger probability that it will succeed.

For instance, see Fishburn and Porter (1976) to learn more about the circumstances under which income effects might be more important than these.

Adrian and Shin's idea of the "leverage channel" is a different point of view (2009).

They work under the assumption that financial institutions strive towards either stable (in the case of commercial banks) or cyclical (in the case of investment banks) ratios of leverage. When confronted with perturbations to their banks respond to changes in their portfolios or profits by purchasing or selling assets rather than distributing the funds, dividend payments or the solicitation of additional investment.

To be more precise, their investigation does not concentrate on the quality of bank portfolios, but it does have repercussions for the amount of risk that banks are willing to take. Monetary policy the prices of assets will increase as a result of the easing. As a result of the drop in stock prices, bank equity will go up, and banks will change how they lend money. They will increase their demand for assets in order to gain leverage. This reaction contributes to the initial boost's continued success.

2.10 Method of balancing opposite force

There are a number of variables that might affect how much risk banks are prepared to accept, such as portfolio redeployment and risk shifting, all of which have an impact on the equilibrium between these two main opposing forces. If the policy rate changes, the effect on the economy will vary over time, throughout the banking system, and among individual banks. This is an inevitable conclusion. This is the

inescapable conclusion that may be drawn from the assumption that the policy rate may shift. To put it another way, limited liability is the primary factor driving the risk-shifting effect; as a result, it will have a greater impact on financially weaker firms (who benefit from the downside protection provided by limited liability). (Has a significant impact). The portfolio, on the other hand, will represent the bank's behavior, which will be comparable to that of an institution without limited liability protection when the bank has a sufficient amount of capital (and consequently low leverage). It's quite likely that the effect will win out in the end. If a country's banking system is relatively stable, then changes to monetary policy will have a distinct overall influence on that country's economy. Adding to the complexity is the possibility of endogenous determination of bank charter values (or leverage) and market shares, as would be the case in a dynamic arrangement (see De Nicol, 2010 for an official presentation of this theory). It becomes significantly more difficult to analyze if we allow bank charter values (or leverage) to be endogenously determined and dependent on monetary circumstances, as in a static arrangement. To see why this is the case, consider the dynamic nature of the setting extension. As a result, banks that have charter values that are relatively low have a higher tendency to fail over time, which results in a negative asset. The relationship between the policy rate and the amount of risk that banks take on is unaltered.

2.11 Empirical evidence

To begin, the researcher looks at how changes in the monetary policy stance affect the conditions of business loans.

About 400 institutions are asked to take part in the Federal Reserve's quarterly survey, which asks for a stratified sample. For each quarter, participating banks receive monthly inquiries about the terms and conditions of all commercial and industrial loans granted during the first full work week of each quarter. This study's easy-to-read version provides an overview of business loan requirements and categorizes them according to various financial institutions.

In order to minimize the risk of a bad outcome, a bank's risk assessment and the normal gap between loan interest rates and the federal funds rate are critical. The difference between the real interest rate and the effective federal funds rate can be

calculated using these metrics, which is known as the true effective federal funds rate. Calculating the federal funds rate that accurately depicts the real interest rate necessitates input from broker quotes. Each day, the Federal Reserve Bank of New York sets the federal funds rate based on information provided by the market's brokers. As a long-term strategy, this is the best option. That the real interest rate (RIR) and bank credit risk-taking (HO) have a strong correlation, as shown by these patterns, is in line with the theory that monetary policy and previous levels of risk-taking are causally connected. As monetary policy tightens, so do bank ratings, the spread over the federal funds rate, and the normal level of internal risk.

The real federal funds rate is correlated with these two variables at 0.0019 and 0.63. The two appear to be connected in a positive way in this context (significant at the 1 percent level). In light of Taylor's 1995 findings, I've come to this conclusion.

Only recently issued loans were examined in the previous study, so a complete picture of the risk banks face could not be provided. When it comes to the riskiness of asset portfolios held by financial institutions, household and real interest rates have a significant impact.

In the United States, banking institutions are required by law to issue financial statements at least once every three months. Documents referred to as "Call Report statements" are sent out to all of the company's stakeholders. One of the most significant benefits of this data collection is the high level of detail it provides. This level of disaggregation is required for time-invariant bank variables that are not readily visible. The bank's business model serves as a good example of this when it comes to bank operations. Using the risk-weighted assets and total bank assets, a ratio can be calculated to determine the bank's degree of vulnerability to risk. Risk-weighted averages of several bank assets are used to calculate risk-weighted liabilities.

It is subject to the same set of regulations and guidelines as banks. If you're looking for a low-risk investment, you might want to consider US Treasury notes, which have a risk weight of zero and are therefore considered risk-free. Treasury notes are government assets. This is why it is possible. Since highly rated government assets

are less risky than unsecured loans, this is why it is each of them carries a significant amount of weight on their own.

For risk determination, households play an important role in determining the outcome. The unit root ADF test can be used to determine how households affect bank risk appetites.

Households will be at risk of default if the real interest rate is raised by 0.15 percent. The difference between the two variables is 0.55 percent, which indicates weak capital. Real interest rates are then used to replace the variable that indicates low capital between real interest rates and variables for bank households, an investigation into the effects on the economy of a lack of bank capitalization. Also, the median estimate of the probability that GDP will continue to grow in the context of previous macroeconomic performance and forecasts for the future is affected by regressions. Following recent macroeconomic trends, this is the method employed. On the other hand, the results of the previous year showed a downward trend in the following year.

Both Lang and Nakamura (1995) and Asean (2005) say that they use a systematic approach to examine the terms of firm loans in their respective studies. Blomberg has also conducted studies utilizing a similar strategy (1998). The number of risky bank loans, defined as those with interest rates higher than prime, exceeded their expectations.

During economic downturns, the number of borrowers who appear to be more risky or difficult to monitor decreases, the economic consequences of this decision will be far-reaching. The standard deviation should decrease as a result of the spread, according to the results. In other words, a 1.8 percent rise in real funds rates translates to a 0.28 percent rise in bank spreads. When a bank's capital is low, the bank spread is 0.61 percentage points. Bank capital has significant effects when it is higher than the spread's standard deviation, which is currently 0.34. In terms of data quality, the results are comparable to those from the lending survey. There is an inverse correlation between the riskiness of investments and real interest rates. Assets of the banks According to our investigation, the link between bank capital and the strength of this link diminishes when bank capital is low.

When studying the link between the two variables, Cottani et al. (1990) found a negative correlation between GDP per capita growth and the real interest rate. According to their findings, economic growth had no correlation with PPP real interest rate misalignment and instability. Both of these facets of the real interest rate were the focus of their investigation.

According to Dollar (1992), economic growth per capita and the distortion of the real interest rate are negatively correlated. This study also yielded results that were similar to those of the previous parallel approach. Based on a review of investment levels and currency rates, the author reached this conclusion. This was done in order to gain a better understanding of this relationship. Berg and Miao (2010) found some inconsistencies in Rodrik's (2008) study after conducting their own investigation. What they discovered led them to believe Rodrik's model has difficulty identifying people.

Many variables are to blame for misalignment, and each can have a significant impact on the economy, according to Berg and Miao (2010). According to the Washington Consensus, undervaluation is preferable to overvaluation, which is the polar opposite of Rodrik's position, which holds that overvaluation is preferable to undervaluation. They believed that the assets' undervaluation and overvaluation were impeding the process of increasing growth.

Increased domestic savings has been linked to lower currency values in numerous studies. Both of these factors have the potential to boost economic growth if the undervalued exchange rate is allowed to remain. According to Levy-Yeyati and Sturzenegger (2007), lower real wages and higher savings are linked to a depreciation of the currency rate, which in turn encourages investment. Findings from Montiel and Serven (2008) show that saving and the real interest rate have a weak relationship, their findings were based on both experimental and theoretical research. This was one of the most critical findings they came across during their investigation. Despite their best efforts, they were unable to find any evidence to support the claim that a currency's value decreases as a result of increased savings rates. According to this theory, a currency that is losing value should have a higher savings rate.

An earlier investigation, conducted in a similar manner, made similar findings to this one. The author made this discovery after adjusting for the impact that high investment levels and fluctuating currency rates had on the findings. Specifically, the author considered and weighed the following: A deeper understanding of the link's workings was sought through this method. In the course of their investigation, Berg and Miao (2010) came to the conclusion that Rodrik's (2008) research contained a few inconsistencies. They concluded that Rodrik's model has an identification flaw as a result of their findings, which led them to propose that

As Berg and Miao (2010) point out, the misalignment stems from multiple factors, and these factors can all have an impact on economic growth. As a result of this misalignment, the economy is unable to function properly. When compared to Rodrik's view that undervaluation would be better than excessive valuation, the Washington Consensus argued that excessive valuation would be worse. Instead of believing that undervaluation was better, Rodrik believed that overvaluation was. They believed that both an undervaluation and an overvaluation of the asset in question hampered the process of enhancing growth.

This information was discovered after a thorough investigation of the study. Additionally, the impact of the real interest rate on economic growth was studied by Eichengeen (2008). He argued that even if there is a link between a competitive real interest rate and economic growth, it is not particularly strong. Although he had admitted that a connection could exist between the two, he continued to reject it. While it's possible that there is a relationship of this kind, this is not the case. Despite this, the investigation was unable to determine which link in the chain of transmission was the most important.

According to a number of studies, an increase in domestic credit has been linked to real interest rates that are lower than their peers. As long as the country's currency remains undervalued, both of these variables have the potential to increase economic growth. For Levy-Yeyati and Sturzenegger (2007), a low interest rate leads to lower real wages and higher levels of credit, both of which in turn lead to increased investment.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

In the next chapter, we will go through how monetary policy has evolved in relation to bank credit risk and the impact it has had on the US banking sector. Bank credit has been subject to stricter monetary policy in the United States from 1819, when there was a banking panic, until the Great Recession in 2008. Because banks had suffered considerable losses in the past, this was justified as a way to keep interest rates and inflation low. 2008 was the year of the Great Reason.

One of the most important things that can be done to both cut unemployment and stimulate the economy is to increase the amount of domestic credit accessible to the private sector. A direct effect of this development is that companies inside financial services can now provide domestic loans for the private sector by making financial resources available to them. Taking out loans, buying non-equity securities, utilising trade credits, and generating new accounts receivable are all ways to try to get a return on these resources. Each of these materials can be used in a countless number of different ways. Debts due to state-owned firms owned by individual countries may also be included in these claims.

The word "financial sector" refers to both the government bodies that manage currency and the financial institutions that manage deposits. Other financial institutions might be approached for information as well (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Leasing businesses, insurance companies, pension funds, currency

exchange companies, and credit unions are all forms of financial institutions in addition to banks and credit unions. This is by no means a complete list.

Variable accesement

Household (HO) factor services include land, labor, and capital, amongst others, which are provided to the firms.

All of the finished goods and services generated by enterprises are purchased directly from the markets. The economy benefits from their varied factor services, while at the same time creating demand for the final goods and services accessible on the market themselves

The real sector of the economy encompasses both business and Private HO. HO play an important part in this industry for a variety of reasons. There have been concerns about the sustainability of HO debt, as well as its consequences for the financial system and the macro economy, throughout the previous few decades (Debelle, 2004). Macroeconomic stability, financial product developments, and legal or institutional regulations may have contributed to the rise of HO debt. It is also likely that HO debt has grown to unmanageable levels due to market flaws and moral hazard, which has led to an increase in nonperforming loans (Rinaldi and Sanchis-Arellano, 2006). Additionally, the HO sector serves as both a surplus sector and a deficit sector. A surplus sector is defined as a group of people who have the opportunity to invest their revenues and wages in either non-financial assets like houses, land, and other fixed assets, or financial assets like bank deposits, shares, and other securities. Money for this project can come from a wide range of places. It is considered a deficit sector because HO borrows money from both financial and non-financial sources to fulfill their consumption and investment needs.

There are a number of ways that the monetary policy that affects HO, which can be either a surplus or a deficit sector, can be influenced in turn by HO. The interest rate channel As a result of the central bank lowering interest rates, people may elect to shift their portfolio investments into non-interest-paying assets, which could lead to an increase in both spending and borrowing. This will lead to an increase in demand, which will in turn lead to an increase in production. A greater amount of money will

be needed to support production as a direct result of this. The method by which money is transferred from one account to another, in response to tighter monetary policy, banks hike interest rates on loans (the bank lending channel). HO may opt to cut their spending as a result. As interest rates rise, HO are unable to obtain bank borrowing, resulting in a financial crisis. For the most part, it's about the same. An expansionary monetary policy will have an impact on exchange rates in an open economy where there is no fixed exchange rate. This is due to the fact that decreased interest rates make domestic currency deposits less appealing. When the value of the currency falls, the cost of domestic goods falls in relation to the cost of imported goods, which stimulates domestic demand, businesses that have taken out loans in a different currency see their debt burden rise sharply as the local currency's value plummets. Because of this, these companies will have less room to expand and may have to curtail the scope of their operations altogether. As a result, lower salaries and wages lead to lower demand for goods and services inside the country. It's all about the money. Real estate and financial assets, such as stocks and bonds, both benefit HO and business balance sheets when their prices rise. Increased spending by consumers and investment by HOs and enterprises will result in a greater amount of collateral against which they can borrow money in order to expand their operations (firms). Strong corporate sector development also benefits HOs, which should see a rise in their earnings as a result.

Families also play an important role in maintaining financial stability (see Figure 2). Although large banks have historically carried and managed a disproportionate share of the financial system's exposure to risk, this has not always been a primary consideration in financial stability analyses. Certain types of risk have been shifted to families, however, as a result of financial organizations' development of sophisticated risk management procedures and their creation of new and increasingly intricate financial products over the previous decades. Risk management approaches and financial products have been developed as a result of stronger laws and standards set by regulators in reaction to the growth of financial market infrastructure (IMF, 2005). This new change is in line with the stricter rules and policies that were in place at the time.

It's time to start looking at households as a measure of the stability of the economy. No matter how well-off a HO appears at the moment, there is no assurance that the situation will not alter in the future when it comes to major shocks, such as a rise in interest rates or a decrease in income. No matter how well-off a HO appears at the moment, there is no guarantee that the situation will not change in the future when it comes to dealing with major shocks. According to the International Monetary Fund (2005), families are ultimately bearers of financial hazard, and there are a variety of methods in which risks migrate to and from them. The responsibilities of depositors, insurance beneficiaries, equity investors, and bondholders all put HOs at risk of financial loss. Consumers are a threat to the economy because of the potential for financial disaster they face as debtors to financial institutions. Market risks, inflation risks, risks connected with investment planning and reinvestment, and longevity risks are some of the threats investors face. As a result, if HOs fall short of their varied capabilities, the public sector could face large consequences. The government's role as a last-ditch insurance provider is especially relevant in these cases.

Real interest rate (RIR); Interest rate changes can have a positive or negative effect on the markets. In response to changes in the economic environment, central banks revise their target interest rates on a regular basis. Economic growth and inflation go hand in hand, as can be demonstrated by looking at the graphs below.

When it comes to selecting a target interest rate for banks to lend and borrow money, the Federal Reserve Board, also known as the Fed, is in charge of determining the rate. This decision will have a huge and far-reaching impact on the economy. A change in this interest rate typically takes at least a year to have a significant impact on the economy. As a result, the stock market often reacts faster to changes in this interest rate than the overall economy.

When commercial banks take out loans directly from the Federal Reserve, they receive a discount. The interest rate that banks are charged when they borrow money directly from the Federal Reserve is also established by the Federal Reserve. Typically, the federal funds rate is set higher than this rate (in part to encourage financial institutions to borrow from one another) banks at a lower rate than the Federal Funds Rate that is now in effect.

Interest rates and the stock market have a strong correlation, and investors can learn more about how future changes could affect their assets by paying attention to this correlation. Consequently, people are better equipped to make financial decisions that are in their best interests. A better grasp of how interest rates affect the economy as a whole, stocks and bonds, inflation, and economic downturns will be gained by looking at the following: A change in interest rates

In a recent study by Güncavd and colleagues (1998), there was a nonlinear relationship between financial factors and outcomes. These people believe that when credit limits are eased, the investment equation will become less dependent on the total amount that may be borrowed by the private sector and more dependent on the cost of capital. This is because the liberalization of the financial sector has made it easier for businesses to secure loans. Güncavd et al. use an estimated private investment equation for Turkey to test for structural changes in the coefficients of the cost of capital and credit availability.

Financial liberalization in Turkey resulted in a rise in Turkey's real interest rate, which is what motivates this policy move. Private investment's responsiveness to credit availability declines following monetary liberalization, but there is no evidence that investment becomes more sensitive to the cost of capital after financial liberalization.

According to the World Bank's collection of development indicators, for the year 2020, the United States had a DC to the private sector of 216 percent. Based on the country's gross domestic product, this proportion was calculated. Data for the United States: domestic credit to the private sector (percent of GDP) was obtained from the World Bank in June of 2022 and is based on actual data.

Domestic credit (DC) In addition to loans extended to other businesses, the financial sector also extends credit to other businesses. In addition to deposit money banks and other financial institutions like the central bank, the "financial sector" includes other financial institutions such as commercial "main street" banks. Deposit money banks and other financial institutions are part of the "financial sector," and it's vital to keep this in mind when discussing the industry. Rather than the country's central bank, several countries may keep their foreign reserves in the financial sector. However,

this isn't the case in every country, although it is in a few. There may be a negative balance on the central government's books since claims against the government are treated as a net item. This would lead to a negative figure for the amount of domestic credit extended by the banking industry. There is a net profit for the entire organization when claims are made against the central government. The pricing of goods and services, the availability of credit, and the availability of financial resources all affect the growth of the economy. Economic activity can be directly influenced by credit, which connects all areas of production, consumption, and capital-building. Individuals, businesses, as well as public entities today have easier access to credit as a result of the rise of the global banking and financial industry.

The money that banks lend to people and businesses is referred to as "DC" in the private sector. Loans, non-equity purchases, trade credits, and other receivables can all be used to acquire resources. In some cases, these claims may be a result of the government owing private company's money. The monetary authorities and the financial institutions that deal with deposits of money are both included in the financial sector. Also provided are facts about more financial institutions that have agreed to share their information with the general public (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Many other types of financial institutions exist as well, including, but not limited to, moneylenders, insurance agencies, pension funds, and foreign exchange companies. Due to the government's increased reliance on external borrowing for financial support, the direct lending market grew rapidly. The government borrowed money from commercial banks to help pay for some of this expansion.

Schumpeter One of the earliest economists to argue that the amount of credit made accessible by banks in a country drives economic growth was Joseph Schumpeter (1912). A "real-business cycle" theory developed by Hayek (1931) expanded on all of these notions and stated that rapid growth is the result of low interest rates resulting from (banking) credit expansion. Apart from the fact that Wicksell (1898) and Mises (1912) have also talked about these same mechanisms in their work on growth patterns,

Gross domestic product (GDP) GDP, or "Gross Domestic Product," is a term that reflects the total value of all finished items and services produced inside the borders

of a specific nation during a given period of time. It is an all-encompassing measure of a country's economy because it includes all forms of domestic output.

However, it's not uncommon for the GDP to be estimated quarterly on occasion despite the fact that this is the most typical method. In spite of GDP being calculated on a yearly basis, this occurs. Every quarter and year-to-date, the United States of America releases an annualized GDP estimate. Based on statistics from the prior year, this estimate is accurate.

At a 1.5 percent annual rate in 2022's first quarter, the real GDP of the United States was in decline. During the fourth quarter of 2021, actual GDP increased by 6.9%.

All finished goods and services in a country's economy are counted as part of the GDP, which stands for gross domestic product.

A country's GDP provides a snapshot of its economy and can be used to determine both the size and rate of growth of its economy.

•There are three different methods for estimating GDP: output, expenditures, and income. If you want more information, you can change it for population and inflation.

•Inflation is included in the computation of real GDP but not in the calculation of nominal GDP.

There are, however, certain limitations to the GDP as a tool for making strategic decisions by governments and corporations alike.

HO household

RIR real interest rate

DC domestic credit

GDP gross domestic product

3.4 Data collection procedures

The data that was used in this study includes time series data that covers over 4,983 banks across the United States and spans a period of 44 years, beginning in 1975 and ending in 2019. In addition, the information came from the database known as world BAMK, which is maintained by the World Development Indest.

Data analysis plan

To analyze such useful data and come out with a result that will be useful for policymaker, academician and the general public, we desire to run the following test that will enable us to best find the result we needed.

UNIT ROOT

A kind of test for determining whether or not a time series is stationary, Unit root tests are one such example. Analyzing the outcomes of several time series may do this. When a change in time does not alter the structure of a time series' distribution, we may say that the time series is stationary. On the other hand, the existence of unit roots may lead to non-stationary.

The Elliott–Rothenberg–Stock Test and the Elliott–Rothenberg–Stock Test are two distinct groups. P-tests account for correlations between the error term and the error term's serial correlation (s).

It is common to use the Augmented Dickey Fuller test (ADF Test) to determine whether a time series is stationary or not. Analyzing a series' stationary point is one of the most common uses of this statistical test. The time series value (a separate explanatory variable that is also a time series) is Y_t, and an exogenous variable, X_e, is substituted for Y_t, the time series value (a separate explanatory variable that is also a time series).Also keep in mind that the ADF test is a statistically significant test, so keep that in mind as well. This involves testing the hypothesis, which leads to the calculation of a test statistic and the reporting of p-values.

Augmented Dickey Fuller-ADF

For better forecasting in time series analysis, we need a time series that is stationary at all times. A time series needs to be made stationary before any modeling work can

begin. In autoregressive modeling, testing for stationary is a common practice. For example, Phillips–Perron and Augmented Dickey-Fuller can be used. The Dickey-Fuller test is the primary focus of this article. It will be shown how to use the test in a time series and what the underlying mathematics is.

You can learn more about augmented Dickey–Fuller testing (ADF) and its importance in time series analysis by reading this essay. The Augmented Dickey-Fuller (ADF) test is used to determine if a time series is stationary. The chi-square test is one of the most commonly used statistical methods to determine if a series is stationary. In time series, the stationary factor plays a critical role. The first step in ARIMA time series forecasting is to determine how many varying steps are necessary to stabilize the series. This is a must-do because the model cannot use non-stationary time series data.

The ADF (Augmented Dickey-Fuller) test is statistically significant in hypotheses tests involving null and alternative hypotheses. Using the p-value, it is possible to determine whether or not a time series is stationary or non-stationary.

Using the p-value and the test statistic, you can determine whether a given series is stationary or non-stationary. In other words, how does the ADF test actually work? Let's examine the test's mathematical reasoning with concrete examples.

$\Delta y_t = \alpha + \beta t + \gamma y_{t-1} + \delta_1 \Delta y_{t-1} + \cdots + \delta_{p-1} \Delta y_{t-p+1} + \varepsilon_t$

Because the ADF formulation takes into account delays of order p, higher-order autoregressive processes are not excluded from being a possibility. It is also necessary to be aware of the length of the lag p in order to correctly apply this test to the data.

$$Y_t = \alpha Y_{t-1} + \beta X_e + \epsilon$$

ARDL illustrates this connection between bank credit risk and monetary policy in the following way:

InGDPt = β0 + β1In (HOt-1) + β2 In (RIR-1) + β3In (DCt -1) + εt

Residual Diagnostic test

Karl Pearson derived it from a concept initially put out by Francis Galton in the 1880s and related it back to the original. In 1844, Auguste Bravais came up with and published the mathematical formula that might be utilized to explain the phenomenon. First used in engineering, serial correlation is a method for detecting the fluctuation of a signal over time, such as a radio wave or a computer signal. Serial correlation was used for the first time in this study. Since economists and econometricians have used the measure to study economic data over time, it's become more popular among economists and other members of the business world. This was a major factor in the measure's widespread adoption.

To improve their forecasts and the potential profitability of a strategy, these modelers are seeking to decipher how the relationships are structured. Any time series simulations based on the model may be enhanced by investigating the nature of the correlations. Because it is critical to know the nature of these linkages, there's a second reason why it is important. It is possible to decrease the risk associated with various investing approaches by using reliable models.

By performing a normality test in statistics, it is possible to quantify the probability that a random variable in the data set will have a normal distribution.

Tests may be interpreted in a variety of ways depending on one's conception of probability, but generally speaking, they are a kind of model selection test.

A poor fit between the normal model and the data indicates that the data is not effectively described by the normal distribution, without implying anything about the underlying variables. This is known as the "goodness of fit" in descriptive statistics.

Frequent statistics can be used to test the null hypothesis that the data is randomly distributed.

In Bayesian statistics, instead of "testing normality," one can use the Bayes factor (which gives the relative likelihood of seeing the data given different models) or a prior distribution on the possibility that the data comes from a given model to compare the likelihood that they come from a given distribution with the likelihood that they come from other distributions under consideration.

A normality test is used in order to determine if a population is evenly distributed. It is necessary to have a sample population that is evenly distributed for a number of statistical tests, including the t-test and one-way and two-way ANOVA.

One of the most essential terms in regression modeling, especially when it comes to analyzing portfolios and individual stocks' performance, is heteroskedasticity. Heteroskedasticity is required for the proper operation of these models. The most well-known of these models, the Capital Asset Pricing Model (CAPM), compares a company's performance to the market as a whole in terms of its volatility. 1. In order to include new kinds of predictors, this model has undergone a number of modifications. Size, momentum, quality, and style are among the new sorts of predictors (value versus growth).

We have included these predictor variables in our model because we feel they can help explain or account for the variation in the dependent variable. The capital asset pricing model (CAPM) provides an explanation for the performance of a portfolio. It was clear that an unusual and intriguing phenomenon could not be well explained by the CAPM model, for example. Despite outperforming the CAPM model's predictions, low-quality stocks were more volatile than their high-quality counterparts. According to the capital asset pricing model (CAPM), equities with a greater risk-to-return ratio should provide a higher return.

Another way of putting it, stocks that are more volatile should fare better than those that are less volatile. High-quality stocks, on the other hand, tend to outperform CAPM-predicted returns because of their reduced volatility. This is due to the fact that high-quality stocks tend to have steadier pricing.

GRANGER CAUSALITY

Granger causality is a statistical definition of causation that is based on making predictions. There should be additional information in prior values of X1 if a signal X1 is "Granger-caused" (or "G-caused") by another signal X2, in addition to the information included in previous values of X2 alone. Such information should exist, as stated by the Granger causal theory. The mathematical foundation of this theory is based on a model of stochastic processes using linear regression (Granger, 1969). Extensions to more sophisticated scenarios are possible, although they are generally difficult to accomplish in practice. G-causality, or Granger causality, is a term coined in the 1960s and often used in economics today. However, recent years have seen a surge in interest in neurological applications.

Stability test

E. S. Page of the University of Cambridge developed the CUsUM (or cumulative sum control chart) for sequential analysis in statistical quality control. It's commonly used to keep tabs on things like temperature and humidity. In 1954, CUSUM was published in Biometrika, a few years after Wald's SPRT method was published.

E. S. Page used the term "quality number" to refer to a parameter of a probability distribution, such as the mean. It was he who came up with the idea of using CUSUM to measure changes in the system and when to intervene. For step detection, the CUSUM approach can be applied to changes in the mean.

Bound test

The Autoregressive Distributed Lag Model (ARDL) Bounds testing process can be used to predict level connections when the underlying property of a time series is I (0), I (1), or co-integrated. Uses F and T-statistics to determine the significance or lack thereof of the lagged values of the variables in a univariate equilibrium correction system, where the data-producing process is unknown. ARDL Bounds testing is the precise name for this process. In a state of univariate equilibrium, the correcting system yields this outcome. This model requires us to study both the short-term and long-term correlations between these variables.

CHAPTER FOUR

4.0 INTRODUCTION

The data used by the researcher to conduct the study on the impact of monetary policy on bank credit risk will be presented in this study. In order to be able to arrive at a conclusion, they employed four different variables while they were carrying out the research. To be more specific, they are the "Household" variable, the "Real interest rate" variable, the "GDP growth" variable, and the "Domestic credit" variable. They used the "household" and "real interest rate" variables and domestic credit as independent variables, while they used "GDP growth" as dependent variables. The findings of this research will assist policymakers in determining the type of policy and implementation procedure that needs to be taken against bank credit. This is especially important in a country like the United States, where banks play a significant role in the process of growth and development and help keep the economy stable. The findings will also be of use in other countries.

Table 4.1

4.1 UNIT ROOT TEST

ADF			
Variables	Level	1st difference	Order of integration
DC	0.9135	0.00**	I (1)
GDP	0.9368	0.008*	I (1)
Household	0.5563	0.01**	I (1)
RIR	0.1521	0.002*	I (1)

The results presented thus far indicate that domestic credit was not stationary at level, but it was stationary at the first difference of 00**. This is due to the fact that in the data series input, when the probability value is greater than or equal to 5, this

indicates that it is not stationary. However, the results presented thus far indicate that it was stationary at the first difference of 0.00**.

The Gross Domestic Product was also stationary at the first difference of 0.008*, but it was not stationary at level because at level it was 0.9368. This is according to the law of unity root test, which states that in the data series of input, it will be non-stationary whenever the probability value is greater than 0.05 or equal to 0.05.

The household was stable at the first difference of 0.01**, but not at the level holding to the fact that the probability value was more than 0.05. This is due to the fact that the probability value was greater than 0.05.

The real exchange rate was stable when the initial difference of 0.002* was found, but it was not stationary when the level was found. This is because the probability value was 0.1521, which indicates that it was more than 0.05, as was previously said.

Table 4.2

4.2 Long run ARDL Test

Variables	Coefficient	Prob
DC	0.110306	0.006*
HO	-1.675709	0.03*
RIR	0.645492	0.01**
GDP	0.240242	0.07**
CECR	-38.08524	0.2341

D(HO) 1% significant D(RIR) 1% Significant

The researcher want to utilize the table that is located above to better describe each variable so that when a student who is not majoring in economics or accounting comes across it, they will have a better understanding of what each variable in the table represents or what they are attempting to communicate.

Because the P value is greater than 0.05, the contribution of domestic credit to the expansion of Household is meaningless. This is because a value of P greater than

0.05 indicates that there is no substantial association between the two variables in the long term.

Household contributions to DC growth are significant because the P value for households is 0.03**, indicating that it is less than 0.05, and because it is less than 0.05, it indicates that it has a long-run impact on Domestic Credit. For every one percent increase in the number of households, Domestic Credit will increase by 0.73 percentage point.

Real interest rates are relevant to Domestic Credit growth because the P value is less than 0.05, which implies that for every 1 percent rise in real interest rates, there is going to be an increase of 0.1 percent. The real interest rate is significant to Domestic Credit because the P value is less than 0.05.

Household is significant to GDP growth because the value is less than 0.05 indicating that for every 1 percent increase in HO there is going to be 0.002 percent increase in gross domestic product.

Table 4.3

4.3 Shot run ARDL Test

Variable	Coefficient	Prob
GDP	0.240242	0.07**
HO	1.102634	0.02*
RIR	0.907043	0.009*
ECM	-0.888351	0.00**

The researcher use the table that is located above to better describe each variable so that when a student who is not majoring in economics or accounting comes across it, they will have a better understanding of what each variable in the table represents or what they are attempting to communicate.

The probability value for GDP growth is significant because it is less than 0.05 and when it is less than 0.05 that means it is stationary that means there is a short-term relationship.

Household probability value is 0.02** that means it significant and when it is significant meaning it has a short-term relationship.

Real interest rate has the probability value of 0.009* that means it is significant and has a short-term relationship. The unit root rules state "when the probability value is greater than or equal to 5percent that means it non- stationary on the other hand when it is less than 5percent that means it is stationary" in other to conclude we can say that GDP growth, Household and Real interest rate has a short-term relationship.

Table 4.4

4.4 ARDL Bound test

Model	Lag.	F-Statistic	Decision
GDP, DO, HO, RIR	(2,2,4,4)	6.796377***	Co-Integration Exist
Bond Critical Value			
		I(0)	I(1)
Sign.	10%	2.37	3.2
	5%	2.79	3.67
	2.5%	3.15	4.08
	1%	3.65	4.66

In order to reject the null hypothesis, the F-statistic must always be greater than the lower and higher bond. The null hypothesis states that there is no amount of co-integration between the independent and dependent variables. On the basis of the statistical value for the F-statistical value, which is 6.796377***, we cannot accept but rather come to the conclusion that there is a long-rung relationship between the independent and dependent variable because the result is higher than both the upper and lower values.

If the result of the F-statistic comes out to be somewhere in the middle of the upper bone and the lower bone, then the result of the F-bond is inconclusive. On the other

hand, if the result of the F-statistic is lower than the lower bone, then one may conclude that there is no long-term association

Table 4.5

4.5 Residual Diagnostic test result

Name of the Test	The Null Hypothesis result	Statistics value	Probability
Serial Correlation Test	There is a serial correlation at up to one lags.	1.977871	0.0616
Jarque-Bera (JB) Examination	Normally, residuals are normally dispersed. at 5% level	22.38373	0.0981
White (CH-sq) Test	No conditional heteroskedasticity at 5%	8.393108	0.9071

Serial correlation the probability value must be less than 5% to determine whether or not there is a serial correlation in the problem. If the value is less than 5%, a serial correlation has been detected in the problem. Because the chance of this happening is 0.0616, which is less than 5 percent and allows us to say for sure that there is serial link,

Examine for normalcy: When the probability value of a normality test is greater than 5%, we can accept the null hypothesis. When the probability value is less than or equal to 5%, however, we cannot accept the null hypothesis and must instead accept the alternative hypothesis. Due to the fact that the likelihood value is less than 5%, we are going to go ahead and accept the alternative hypothesis in this instance.

We run the white test to enable us to see if there is a heteroscedasticity in the problem, and to determine if there is a heteroscedasticity, the probability value must be less than 1 percent. We run the white test to enable us to see if there is heteroscedasticity in the problem. If the value of the probability is greater than or equal to 1%, this means that there is no heteroscedasticity in the situation.

Table 4.6

Pairwise Granger Causality Test

Null Hypothesis	Obs.	F-Statistic	Prob
DC does not Granger Cause GDP	44	5.8695	0.0059**
GDP does not Granger Cause DC		0.50271	0.6088
HO does not Granger Cause GDP	44	3.78997	0.0313**
GDP does not Granger Cause HO		0.4508	0.6404
RIR does not Granger Cause GDP	44	2.43622	0.1007
GDP does not Granger Cause RIR		0.94197	0.3985
HO does not Granger Cause DC	44	0.64049	0.5325
DC does not Granger Cause HO		1.47054	O.2423
RIR does not Granger Cause DC	44	0.77714	0.4667
DC does not Granger Cause RIR		2.84395	0.0703
RIR does not Granger Cause HO	44	0.74819	0.0019**
HO does not Granger Cause RIR		2.95401	0.0639

On the one hand, there is causation between variables if the p value is greater than 5%; on the other hand, there is causation between variables when the p value is less than 5%. This is the null hypothesis of Granger causality. Results for domestic credit and GDP growth prior to this demonstrated that domestic and GDP growth had a general causation of 5%. The results that came before show that household and GDP growth are statistically significant. Previously, a correlation was found between real

interest rates and household income, indicating that these two variables work together.

Figure 1.1

4.7 Cusum
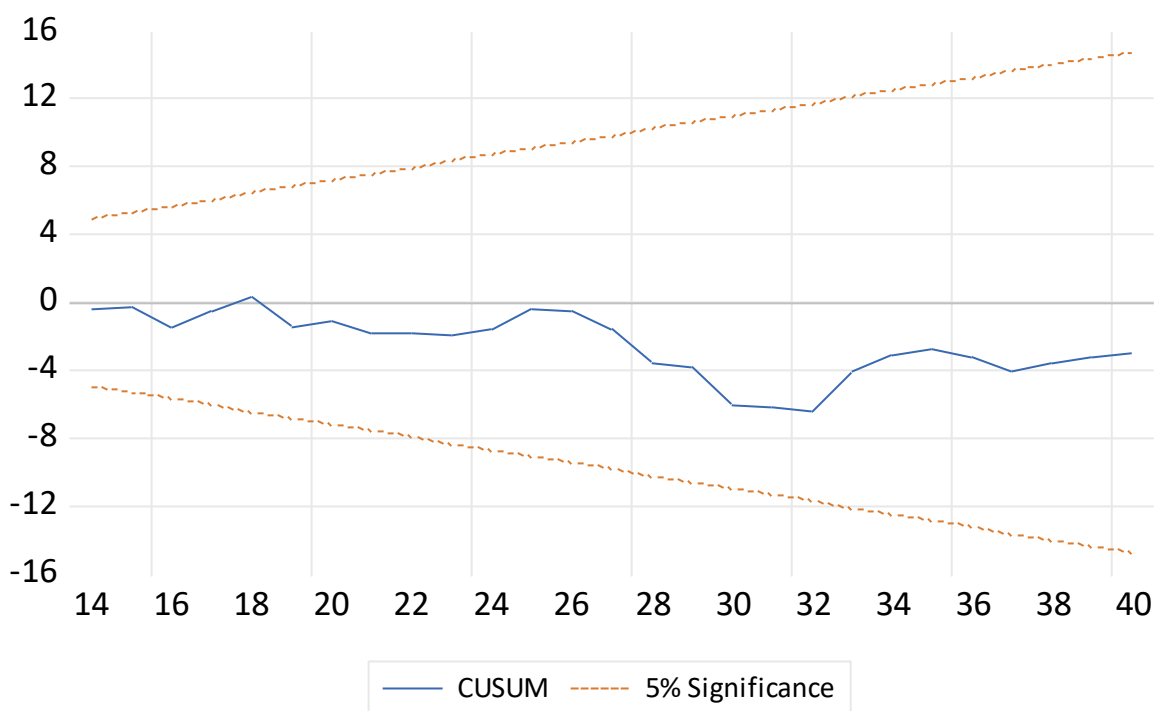
We apply the cusum test to a fascination regression equation in order to see whether there are any structural shifts or breakdowns in the equation. This signals that there is a problem with the regression since the blue line has slipped below the significance 5 percent red line when we do a cusum test. According to this test, the blue line is located between the significance 5% red line and there is no issue with the regression.

Figure 1.2

Cusum of squares
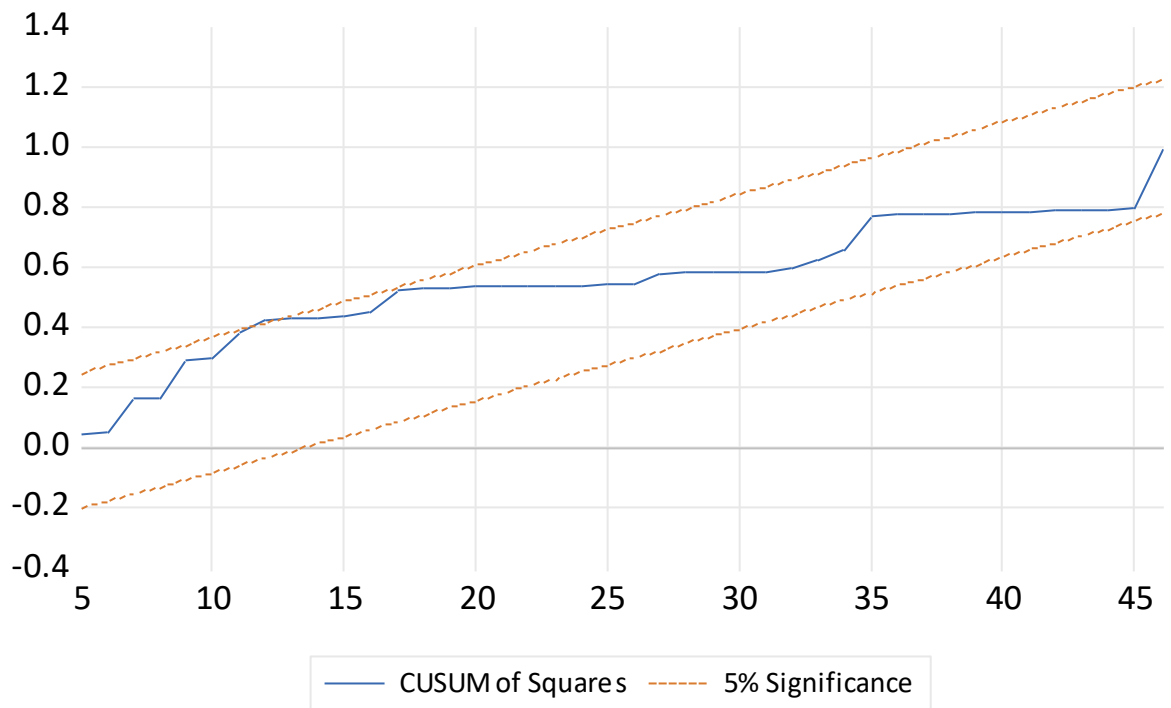
A test known as cusum of squares is used to detect whether or not there have been any unexpected departures from the consistence of the regression coefficients. In this case, we may say the cusum square result is significance since the blue line in this test is between the significance line and the other two red lines.

CHAPTER 5

Finding and results

These studies are aimed at determining how variables like household debt, real interest rates, and domestic credit affect GDP growth in the United States as a whole. For this investigation, various econometric techniques were used. These included: the Unit root test, the Bound test, the Long-run and Short-run tests, the Normality test, the Serial Correlation Test, the Heteroskedasticity Test, the Granger Causality Test, and the Summation and Summation Squared tests. An in-depth examination of household econometrics, including real interest rates, domestic credit, and GDP growth, was required to arrive at reliable results for this study. It was found that all variables were in I (1) structure and that household lag length was 1, the real interest rate was 1, domestic credit growth was 1, and GDP growth was 1. This study employed the ADF unit root method instead of the unit root method in order to test the results. A lag length of one in households, a real interest rate of one, and domestic credit were also found. Results also showed that the lag time in the home was one. In addition, the study found that the lag time in the family was the same for all of the factors studied. Researchers used bound tests to see if the four variables had a long-term association that remained steady over the course of time.

There was a significant degree of presence in the bound test for each of the variables that were examined for inclusion in the investigation. This shows that each of the variables was in a stable equilibrium for a lengthy period of time. Domestic credit and GDP growth, household credit and household credit, and real interest in households were all examined as part of the Granger Causality Test. If there is a correlation between GDP growth and credit utilization, then the tests were carried out. According to the study findings, household borrowing had a direct impact on both domestic credit and GDP growth. Domestic credit was also impacted by household borrowing. As a result of the household sector's impact on the real interest rate, Despite this, the results of this study demonstrated that home credit and domestic credit have a lead and lag link. It's a two-way street in this connection. Analysis of the correlations between the variables found that one and two lags in GDP growth had an impact on the current interest rate, while one lag in GDP growth had an impact on the current interest rate's elasticity. When the variables were

examined as part of an inquiry into their relationships, these findings were derived. However, the testing of the regressions revealed a relationship between the expansion of domestic credit and the rise of GDP. A decision had been made, and this was the outcome. The Granger Causality approach was used to investigate the causal links between the real interest rate and household finances, GDP growth, and domestic credit. This methodology was referred to as Granger Causality. The real interest rate was caused by domestic lending, and household expenditure was the driving force behind GDP growth, according to the data. The fact that domestic lending pushed up the effective interest rate supports these assertions. There was a correlation between real interest rates and households throughout this time period. There's evidence to support Mundell's theory that the real interest rate didn't keep up with household income.

5.7 Conclusion

We carried out this research to find out how much credit risk individual US banks are exposed to as a result of monetary policy. The Federal Reserve System is the exclusive focus of this investigation. Natural disasters and other types of dangers are taken into consideration, as well as the general state of the economy, as well as the amount and rate at which banks can access credit. In order to depict the risks associated with the banking industry, the researcher has used independent variables such as the real interest rate and the household interest rate. The real interest rate and the household interest rate are examples of these variables. During the course of this inquiry, both the GDP and the domestic credit market have functioned as dependent variables. We used time-series data to investigate the factors that influence credit risk. Thanks to the findings of this study, we can now see the link between credit risk and monetary policy. Our research shows that there is a strong long-term correlation between monetary policy and credit risk that is statistically significant. Many diverse scenarios can be addressed by this general rule of thumb of advice. Interest rates that are greater than the central bank's lending rate enhance the risk banks confront in their operations.

. The reason for this is that banks have a higher default rate. As a result, the risk of subprime and nonperforming loans rises. In part, it's because borrowers bear the brunt of an increase in interest rates. So, in order to reduce the impact that monetary policy has on banks' credit risk, the United States of America must keep the interest rate on loans at 0.25 percent. This means that interest rates on loans cannot be lowered in the United States. Banking regulators and economists may benefit from the findings of this study, which could help them improve banking stability and economic policy. Because of this, policymakers in the United States should tailor their monetary policies to match the risk appetites of individual banks, the paper's findings suggest. This is the most important policy implication of the study's findings. There are a number of policy implications that can be derived from the findings of this article. Consider the impact that their policies will have on the banking system's risk, as well as other factors like the stability of the economy and inflation rate, before making any decisions.

5.8 Recommendation

As a result of the findings, the researchers have come to the conclusion that monetary policy should be tweaked to better account for bank credit risk. Ideally, they would like to present their idea to government officials.

According to the explanation of the situation we just heard, the federal government of the United States began to assert increasing control over the nation's financial system in 1819. Several key economic catastrophes have resulted in a high failure rate among financial institutions, notably banks, from the first financial panic to the Great Recession that began in 2008. One recommendation made by these studies is that the central government be given more authority, or that legislation giving it authority to maintain an inflection point at a high level and increase employment over unemployment be strengthened. [Reference required] [Reference required] Due to central banks' extra instruments, such as monetary policy and monetary policy, central banks may be able to impact the economy when the economy is dynamically inefficient. Even more importantly, cash circulation can improve everyone's standard of living. However, if the solution is also dynamically efficient, it's a different issue. monetary policy, social security, and the government's debt are all influenced by the amount of money in circulation.

In the finding, the researchers discuss monetary policy on bank credit risk, the researcher recommend that further research be conducted on monetary policy on bank capital or further research be conducted on monetary policy on bank performance using a panel for more countries.

This research indicated that policymakers should less tighten monetary policy in order to maintain the economy stable and attract investors so they may continue on investment since tightening monetary policy would frighten investors. Less investment, less work potential, greater investment, more job opportunity, and better livelihood

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Appendix

UNIT ROOT TEST

Null Hypothesis: DO has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on t-statistic, lagpval=0.1, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.310914	0.9135
Test critical values:	1% level	-3.626784	
	5% level	-2.945842	
	10% level	-2.611531	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(DO) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on AIC, maxlag=1)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.006212	0.0000
Test critical values:	1% level	-2.618579	
	5% level	-1.948495	
	10% level	-1.612135	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: GDP has a unit root
Exogenous: Constant
Lag Length: 10 (Automatic - based on t-statistic, lagpval=0.1, maxlag=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.142040	0.9368
Test critical values:	1% level	-3.632900	
	5% level	-2.948404	
	10% level	-2.612874	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on t-statistic, lagpval=0.1, maxlag=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.703887	0.0084
Test critical values:	1% level	-3.632900	
	5% level	-2.948404	
	10% level	-2.612874	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: HO has a unit root
Exogenous: Constant
Lag Length: 7 (Automatic - based on t-statistic, lagpval=0.1, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.432367	0.5563
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(HO) has a unit root
Exogenous: None
Lag Length: 2 (Automatic - based on t-statistic, lagpval=0.1, maxlag=2)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.565474	0.0115
Test critical values:	1% level	-2.621185	
	5% level	-1.948886	
	10% level	-1.611932	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: RIR has a unit root
Exogenous: Constant
Lag Length: 5 (Automatic - based on t-statistic, lagpval=0.1, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.592256	0.4772
Test critical values:	1% level	-3.605593	
	5% level	-2.936942	
	10% level	-2.606857	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(RIR) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on t-statistic, lagpval=0.1, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.149116	0.0023
Test critical values:	1% level	-3.600987	
	5% level	-2.935001	
	10% level	-2.605836	

*MacKinnon (1996) one-sided p-values.

BOND TEST

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	6.796377	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

LONG RUN TEST

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-38.08524	31.26468	-1.218156	0.2341
GDP(-1)*	-0.888351	0.207913	-4.272707	0.0002
DO(-1)	-0.026136	0.029847	-0.875669	0.3892
HO(-1)	0.646645	0.554086	1.167048	0.2538
RIR(-1)	0.645492	0.241618	2.671536	0.0129
D(GDP(-1))	0.240242	0.151933	1.581233	0.1259
D(DO)	-0.070619	0.025998	-2.716316	0.0116
D(DO(-1))	0.110306	0.037105	2.972835	0.0063
D(HO)	-0.617132	0.694903	-0.888084	0.3826
D(HO(-1))	0.362147	0.722495	0.501246	0.6204
D(HO(-2))	-1.675709	0.731655	-2.290298	0.0304
D(HO(-3))	1.102634	0.598471	1.842419	0.0768
D(RIR)	0.907043	0.311460	2.912234	0.0073
D(RIR(-1))	-0.324484	0.302985	-1.070959	0.2940
D(RIR(-2))	-0.899834	0.326320	-2.757524	0.0105
D(RIR(-3))	0.486464	0.276979	1.756321	0.0908

SHOT RUN TEST

ECM Regression Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.240242	0.129806	1.850777	0.0756
D(DO)	-0.070619	0.020723	-3.407712	0.0021
D(DO(-1))	0.110306	0.024889	4.431939	0.0002
D(HO)	-0.617132	0.484375	-1.274080	0.2139
D(HO(-1))	0.362147	0.543863	0.665879	0.5114
D(HO(-2))	-1.675709	0.537463	-3.117815	0.0044
D(HO(-3))	1.102634	0.458515	2.404795	0.0236
D(RIR)	0.907043	0.243347	3.727357	0.0009
D(RIR(-1))	-0.324484	0.257081	-1.262189	0.2181
D(RIR(-2))	-0.899834	0.260147	-3.458952	0.0019
D(RIR(-3))	0.486464	0.199993	2.432406	0.0222
CointEq(-1)*	-0.888351	0.141869	-6.261778	0.0000

NORMALITY TEST

| Series: Residuals	
Sample 5 46	
Observations 42	
Mean	3.69e-14
Median	-0.027741
Maximum	2.133790
Minimum	-2.456244
Std. Dev.	1.004829
Skewness	-0.127152
Kurtosis	2.956917
Jarque-Bera	0.116421
Probability	0.943451
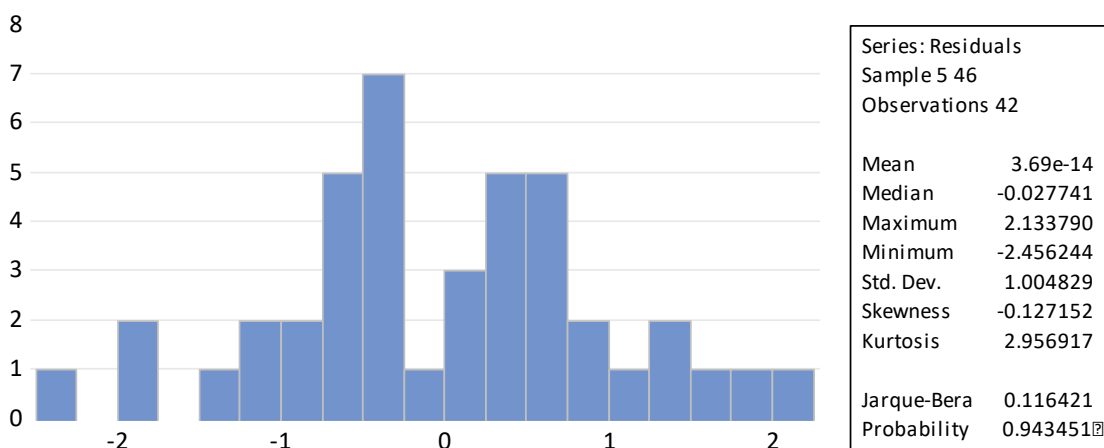
SERIAL CORRELATION

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.122559	Prob. F(2,24)	0.3419
Obs*R-squared	3.592858	Prob. Chi-Square(2)	0.1659

HETEROSKEDASTICITY TEST

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.977871	Prob. F(15,26)	0.0616
Obs*R-squared	22.38373	Prob. Chi-Square(15)	0.0981
Scaled explained SS	8.393108	Prob. Chi-Square(15)	0.9071
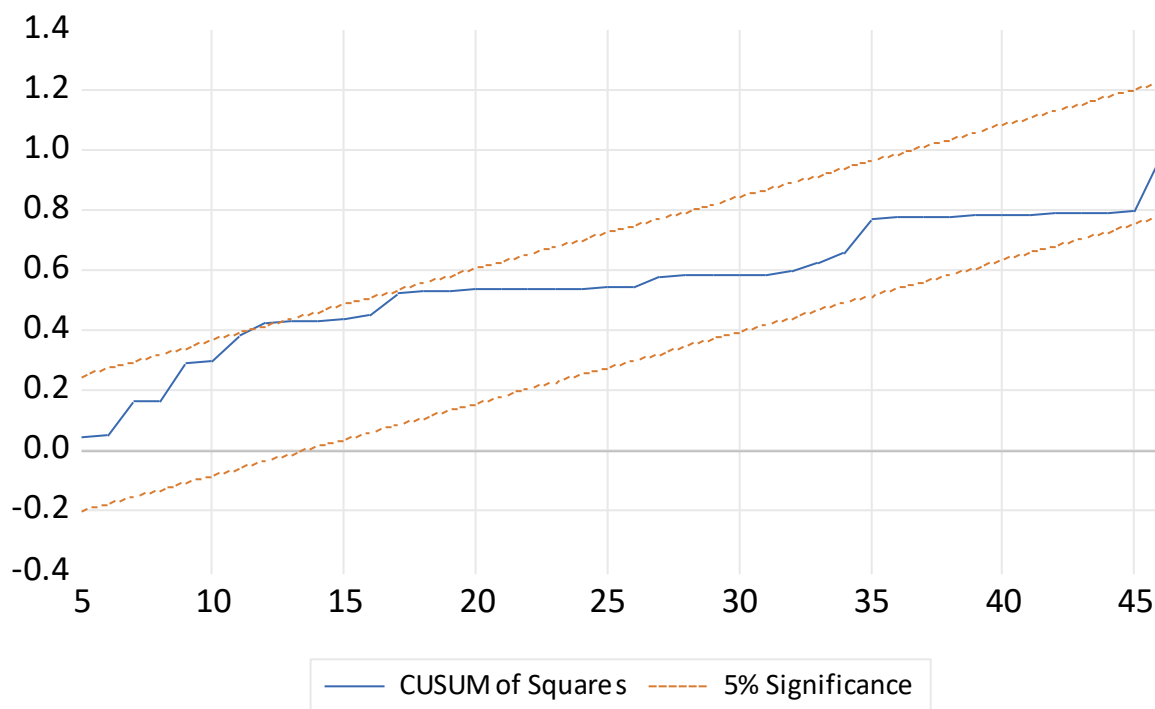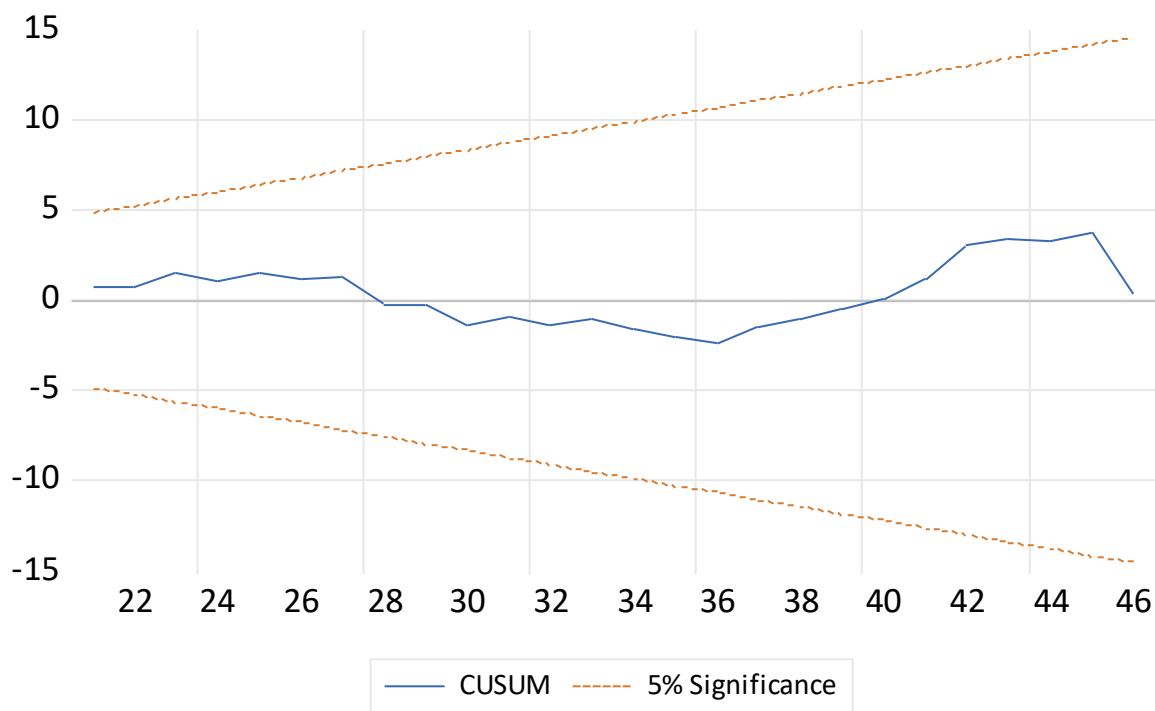
Pairwise Granger Causality Tests
Date: 06/16/22   Time: 17:55
Sample: 1 46
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DO does not Granger Cause GDP	44	5.86950	0.0059
GDP does not Granger Cause DO		0.50271	0.6088
HO does not Granger Cause GDP	44	3.78997	0.0313
GDP does not Granger Cause HO		0.45080	0.6404
RIR does not Granger Cause GDP	44	2.43622	0.1007
GDP does not Granger Cause RIR		0.94197	0.3985
HO does not Granger Cause DO	44	0.64049	0.5325
DO does not Granger Cause HO		1.47054	0.2423
RIR does not Granger Cause DO	44	0.77714	0.4667
DO does not Granger Cause RIR		2.84395	0.0703
RIR does not Granger Cause HO	44	7.40819	0.0019
HO does not Granger Cause RIR		2.95401	0.0639

FINAL THESIS

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