

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE



**IMPACT OF INFLATION ON BANKS' PERFORMANCE: CASE
STUDY OF ZIMBABWEAN COMMERCIAL BANKS.**

By

Yolanda Charamba

B1851699

**A dissertation submitted to Bindura University, Faculty of Commerce,
Department of Banking and Finance, in partial fulfilment of the
requirements of the award of Bachelor of Commerce Honours Degree in
Banking and Finance.**

2022

Harare, Zimbabwe

APPROVAL FORM

The undersigned certify that they have supervised, read and recommended to the Bindura University of Science Education for the acceptance of the research project entitled “**Impact of inflation on Bank’s Performance: Case Study of Zimbabwean Commercial Banks (2018-2021)**”. Submitted in partial fulfilment of the requirements for the Bachelor of Commerce Honours Degree in Banking and Finance.

Signature

Date:.....

RELEASE FORM

NAME OF THE AUTHOR: Yolanda Charamba

DISSERTATION TITTLE: Impact of inflation on bank's performance: Case study
of Zimbabwean Commercial Banks.

DEGREE TITTLE: Bachelor of Commerce Honours Degree in Banking and
Finance.

YEAR GRANTED: 2022

Permission is hereby granted to the Bindura University library to produce single copies of this dissertation and to lend or sell such copies for private, scholarly or scientific research purposes only. As such no part of this research in any form, electronic or photocopy may be reproduced for any other purposes other than academic without permission from the undersigned. The author reserves other publication rights.

PERMANENT ADRESS: 3086 Mhukahuru Street,
Cherutombo, Marondera

SIGNED:

DATE:

DECLARATION

I, Yolanda Charamba, do hereby declare that this dissertation is the result of my own investigation except to the extent indicated in the acknowledgements, references and comments. Therefore, no part of this research can be reproduced for other purposes without permission from the undersigned. The research has not been submitted in part or in full for any other degree to any University.

DEDICATION

To my loving brother James, you have been there for me in my academic journey.

ACKNOWLEDGEMENTS

I am grateful to God for the wisdom and gift of life which were the most critical ingredients in the drafting and polishing of this artefact. It is also important to acknowledge the moral, intellectual, financial and every other type of support that I received from the people who saw me through this huge milestone. First and foremost, my brother James, you are appreciated for being my inspiration and energy whenever the going was at times tough and rough. My fellow classmates, family and friends and every stakeholder that I worked with, you are priceless. Special thanks to Bindura University for affording me the opportunity to get sharpened and the impartation of knowledge.

ABSTRACT

Inflation is not only an economic evil; its effects are far reaching and disastrous as it robs society the very fiber of decent living. Zimbabwe is in inflationary environment and as it seems the number one enemy is here to stay. As political heavyweights and economic echelons scuff their heads for a solution, commercial banks have not been spared in the mêlée against inflation neither has the enemy itself spared the banking system as highlighted by the results of this study under the following topic; banking sector performance in a inflation environment in Zimbabwe for the period 2018 to 2021. The research established that inflation is harmful to banks as highlighted by the trends in profits which are declining against the galloping inflation. The relationship between bank profits and inflation determined using regression analysis; a quantitative technique is positive when inflation is within low levels like below 100% but this relationship becomes inverse as inflation continues to rise. Profits have risen in numeral terms but in real terms the banks are reeling and showing extreme signs of stress as the future gets gloom with dawn every day. If all else were equal maybe these banks could breathe some fresh air beyond Zimbabwean borders but given the overvalued local currency against a background of acute foreign currency shortages, , corruption and expropriation of private properties who else is willing to deal with Zimbabwean banks except a few. Any future research that looks at this dynamic and complex relationship should encompass other important variables that reflect the performance and survival prospects of any financial institutions.

Table of Contents

CHAPTER ONE	1
1.0 INTRODUCTION.....	1
1.1 BACKGROUND OF THE STUDY	1
1.1.1. The Banking Industry in Zimbabwe	3
1.3. PROBLEM STATEMENT	6
1.4. RESEARCH OBJECTIVES	7
1.5. RESEARCH QUESTIONS.....	7
1.6. JUSTIFICATION OF THE STUDY.....	8
1.7. ASSUMPTIONS OF THE STUDY	8
1.8. DELIMITATIONS	9
1.9. LIMITATIONS OF THE STUDY	9
1.10 CHAPTER CONCLUSION.....	11
CHAPTER 2: LITERATURE REVIEW	12
2.0 INTRODUCTION.....	12
2.1 Definition of Inflation Rate	12
2.1.1. Inflation Measurement.....	12
2.1.2 Definition of Financial Sector	13
2.1.3. Importance of Financial Sector.....	13
2.1.4. Bank Profitability	14
2.1.5. Bank Profitability Indicators	15
2.1.5.1. Return on Assets.....	15
2.5.1.2. Return on Equity.....	16
2.1.5.3. Net Interest Margin.....	16
2.2 Theoretical Literature Review.....	17
2.2.1 Inflation and bank profitability.....	17
2.2.2 The monetarist theory	18
2.2.3. Cost-Push Inflation Theory	18
2.2.4. Demand-Pull Inflation Theory.....	19
2.2.5. Inflation Effects	20
2.3 Empirical Literature Review	26
2.3.1 The impact of inflation on bank lending	27
2.3.2 The impact of inflation on bank profitability	27
2.3.3. Research Gap.....	29

2.4 Conclusion.....	29
CHAPTER 3: RESEARCH METHODOLOGY	30
3.0 Introduction	30
3.1 Research design.....	30
3.1.1 Conceptual framework	31
3.1.2 Model Specification.....	31
3.1.3 Justification of the model	32
Diagnostic Tests	33
Multicollinearity test	33
Normality Test	33
Tests of significance	34
3.1.4 Research Population	34
3.1.5 Definition of Variables	35
3.1.6. Research Sample.....	36
3.1.7. Data Analysis.....	36
3.1.7. Data Presentation.....	37
3.1.4.1. Data Collection Methods and Instruments	37
3.4.1.2. Data Reliability and Validity	41
3.4.1.3. Ethical Considerations	41
3.4.1.3. Research Limitations	42
3.5 Conclusion.....	42
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION	44
4.0 Introduction	44
4.1. Response Rate	44
4.1 Background of Respondents.....	44
4.1.1 Job Positions.....	45
4.2.3. Challenges faced by Commercial banks through inflation	46
4.1.2 Reliability Analysis	47
4.3. Descriptive statistics.....	47
4.2. Model Diagnostic Test results.....	48
4.2.1. Normality test results.....	48
4.2.2. Regression Results Presentation.....	49
4.2.3. Regression Statistics.....	49

Source: Research Findings	49
4.2.4. Analysis of Variance (ANOVA)	50
4.2.4. Regression Coefficients Results	51
4.3. Summary	54
CHAPTER FIVE: DISCUSSION; CONCLUSION AND RECOMMENDATIONS	55
5. Introduction.....	55
5.2. Summary of Major Findings	55
5.1.1. Negative relationship between bank profitability and inflation	55
5.1.2. Negative relationship between ROA; ROE and NIM with inflation.....	56
5.1.3. Critical Inflation Thresholds.....	56
5.1.4 The challenges to the banking sector through inflation.....	57
5.1. Conclusion.....	57
5.3. Recommendations	58
5.3.1. To the Zimbabwean Commercial banks	58
5.3.2. To the Reserve Bank of Zimbabwe	60
5.3.3 To the Government	60
Suggestions for future research	60
REFERENCES	62

LIST OF FIGURES

FIGURE 1. 1 : ANNUAL INFLATION PROFILES (April 2016: June 2019).....	1
FIGURE 1. 2: ANNUAL INFLATION PROFILES (FEB 2020: DEC 2021)	2
FIGURE 2. 1 : Supply Demand Pattern for Loanable Funds	22
FIGURE 3. 1: Variables.....	31
FIGURE 4. 1: Length of Service	45

LIST OF TABLES

TABLE 1. 1: ARCHITECTURE OF ZIMBABWEAN BANK INDUSRTY.....	6
TABLE 2. 1: Black Market Rates.....	25
TABLE 3. 1: Architecture of the Banking and Microfinance Industry	34
TABLE 4. 1: Response Rate.....	44
TABLE 4. 2: Job Positions	45
TABLE 4. 3: Descriptive Statistics.....	48
TABLE 4. 4: Test for Normality.....	49
TABLE 4. 5: Regression Statistics	49
TABLE 4. 6:ANOVA	50
TABLE 4. 7: Regression Coefficients for ROA	51
TABLE 4. 8 Regression Coefficients for ROE.....	52
TABLE 4. 9: Regression Coefficients for NIM.....	53

LIST OF ACRONOMYS

AFC	Agricultural Development Bank of Zimbabwe
AIR	Annual Inflation Rate
ANOVA	Analysis of Variance
CSO	Central Statistics Office
CPI	Consumer Price Index
ESAP	Economic Structural Adjustment Programme
GDP	Gross Domestic Product
IMF	International Monetary Fund
MFI	Microfinance Institution
NIM	Net Interest Margin
OLS	Ordinary Least Squares
RBZ	Reserve Bank of Zimbabwe
ROA	Return on Assets
ROE	Return on Equity
ZIMPREST	Zimbabwe Programme of Economic and Social Transformation

Research Topic: Impact of inflation on bank performance: Case study of Zimbabwean Commercial Banks (2018-2021).

CHAPTER ONE

1.0 INTRODUCTION

This study looks into the influence of inflation on the banking industry, with a particular focus on the summary of inflationary trends and the causal effect of lowering consumer prices and low inflation on the performance of the Zimbabwean Commercial Bank from 2018 to 2021. The researcher wants to examine and contrast the influence of inflation on the performance of commercial banks throughout this time period. Profitability, total assets, deposits, cost-to-income ratio, net operating income and net income growth are all examined in connection to inflation. The investigator elaborates on the problem statement, research questions and objectives, study justification, and research scope in this chapter.

1.1 BACKGROUND OF THE STUDY

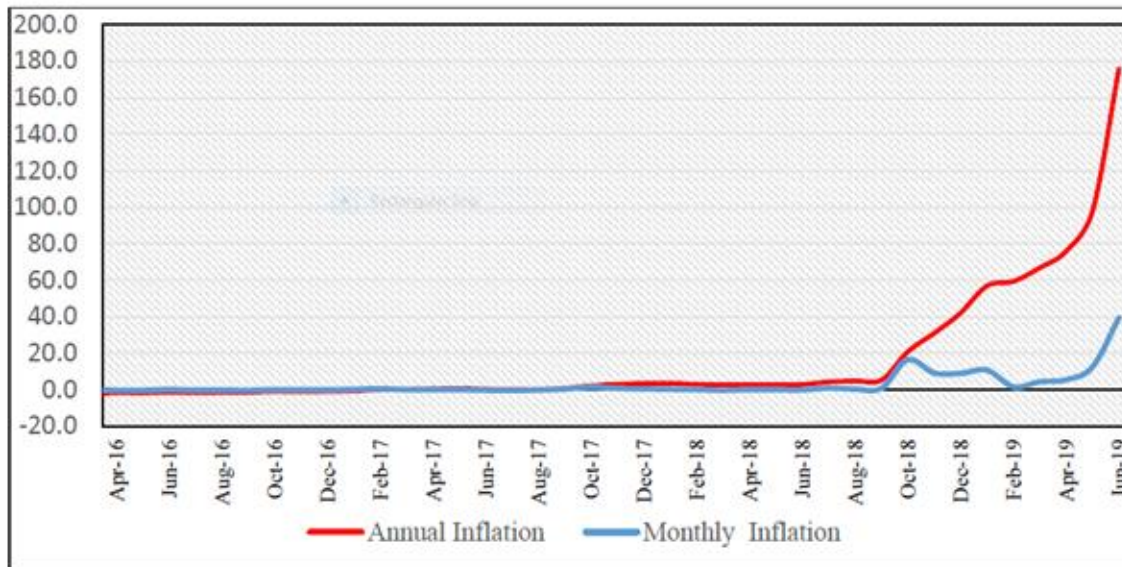
Background and Analysis of the Zimbabwean Economy

The front-page inflation annually had been mainly trending below 5% for the grander part of 2018, in October 2018 hobbled to 21% and additional to 42.1% in December 2018, as inflation forces bodies in the economy. The price hikes in October were caused by excessive speculative behaviour, unrelated to economic fundamentals, which also saw unjustified upsurges in parallel market rates for foreign exchange.

The year-end 2018 saw food and non-food prices spiralling up, transversely most classes of the consumer basket. Most discernible prices escalations were discovered in classes that had noteworthy import content, reflecting the sourcing of foreign exchange from alternative markets due to deficiencies. Month-on-inflation, which had persisted mainly below the 1.5% threshold throughout the year, escalated 16.4% in October 2018.

Inflation remains the major challenge facing the economy even today. The headline inflation of the year speeded from 56.9% in January 2019 to 175.5% in June 2019. The inflation progresses mainly showed exchange rate modifications, following a phased approach to currency reforms, which culminated in the simultaneous abolishment of the multicurrency regime and Zimbabwean dollar re-introduction, on June 24th 2019. FIG 1 shows inflation trends from April 2016 to April 2019.

FIGURE 1. 1 : ANNUAL INFLATION PROFILES (April 2016: June 2019)

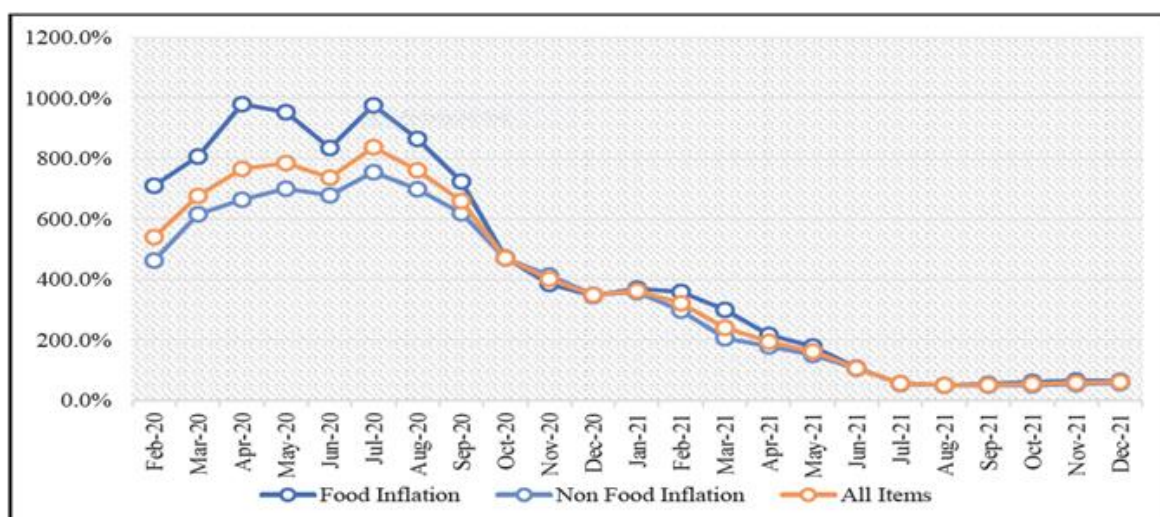


Source: Zimstat, 2019

The apparent spike in inflation in June 2019, in particular, reflected continued speculative pricing tendencies; the factoring in of exchange rate depreciation; implicit benchmarking of prices in US dollars; as well as deliberately high and unfair prices in RTGS, ostensibly aimed at forcing consumers to pay for goods and services in foreign currency.

According to the RBZ February 2022 monetary policy statement, inflation is still affecting the economy. The resurgence of inflationary pressures at the end of 2021, which saw annual inflation closing the year at 60.7%, mainly as a result of the parallel exchange rates pass-through effect on domestic inflation that continues to bedevil the economy, makes the exchange rate pass through an important consideration. Thus, whilst the auction exchange rate depreciated from ZW\$85 per US\$1 for much of 2021 to close the year at ZW\$108 per US\$1, the parallel market premiums which rose to between 40% and 90% exerted significant inflationary pressures on the economy. The Fig 3 below shows clearly the inflation trends from February 2020 until December 2021.

FIGURE 1. 2: ANNUAL INFLATION PROFILES (FEB 2020: DEC 2021)



Source: Zimstat 2021

1.1.1. The Banking Industry in Zimbabwe

Zimbabwe's financial services business was extensively controlled from its start, more than a century ago, until 1990, according to Bleany and Francisco (2016). The Reserve Bank of Zimbabwe (RBZ) rigorously oversaw the industry through its Banking Supervision Department (BSD) to guarantee conformity to the several regulations overriding the institutions, including the Banking Act for Commercial Banks and the Building Societies Act for Building Societies. There were five established Commercial Banks, two Merchant Banks, and a handful of Finance Houses and Insurance Companies serving Zimbabwe prior to independence. Between 1980 and 1990, the government dominated the sector, setting interest rates charged by banks and deposit rates for depositors. Credit limitations were designed to direct funds to specified industries. Commercial banks could only provide short-term working capital financing, merchant banks could only provide wholesale banking, and building societies could only provide mortgage financing. From 1965 through 1980, interest rates stayed in the single digits, ranging from 5% to 8%, due to lending rate caps and administrative controls on other interest rates. In 1980, minor revisions were made as authorities sought to give monetary policy a more active role.

The government purchased 62 per cent of the Dutch Bank of South Africa (Nedbank), allowing the majority in private hands in the country. The purchase price was 91 percent of the prevailing stock exchange share price, and the remaining shares were traded on the local stock exchange as Zimbank. In addition, the government purchased a 47 percent stake in BCCZ, a commercial bank, in cooperation with BCCI, an investment corporation, which held

the remaining 53 per cent. The government, on the other hand, did not use its power over these two banks to sway their decisions. No new government-owned investment banks were founded and no other foreign banks were nationalized (Harvey, 1995).

Following Zimbabwe's liberation in 1980, the new command proclaimed itself a socialist state and took no decisive steps to democratize an economy that was growing despite being severely controlled under the previous administration. The limitations were put in place, understandably, to fight the very heavy economic sanctions that had been executed on the country at the time due to political unrest. The new regime kept many of the rules in place, which made it difficult for businesses to compete, notably in the financial industry (Harvey, 1995). The government's taking on of the Economic Structural Adjustment Programme (ESAP) in 1991 marked a shift in the way the banking sector and the economy as a whole operated. The goal of the ESAP was to shift the economy away from a largely state interventionist approach to a more market-driven approach. The adoption of ESAP and its successor programs, such as the Zimbabwe Programme of Economic and Social Transformation (ZIMPREST) for the period 1996-2000, was a distinguished trend in Africa, where the failure of "socialist" experiments and other models of state management of the economy resulted in countries having to turn to the World Bank and the International Monetary Fund (IMF) for financial assistance.

Banking liberalization resulted from the five-year plan's implementation, which included the abolition of interest rate controls and entrance barriers to the financial industry. Restrictions on the use of surplus money, as well as the interest cap on them, were removed, allowing these funds to be invested in the market at market rates. The subtraction of these controls was intended to boost economic action and growth, improve efficiency, and broaden the range of financial products obtainable to the market, resulting in the emergence of new financial actors such as Intermarket Holdings, Trust Holdings, First Banking Corporation, CFX, and Premier Banking Corporation (Pindiriri 2012). The finance zone non-stop to expand, allowing for more competition and the introduction of new products such as unit trusts and derivative instruments. To minimize segmentation and boost competition, the Reserve Bank Act (1996) and the Banking Act (1996) were changed. Through mergers, acquisitions, and reorganization of original structures, banking groups emerged in the financial sector (RBZ Annual Report 2001) . Kingdom Financial Holdings, Trust Holdings, and Intermarket Holdings are instances of such banking conglomerates. Zimbabwe's financial industry, which includes a Reserve Bank, Commercial Banks, Building Societies, Merchant Banks, Savings Banks, Asset

Management Companies, and Microfinance Institutions, is currently rather sophisticated. There were 22 operational banking institutions, 16 asset management businesses, and 150 microfinance institutions under the Reserve Bank's supervision as of December 31, 2012 (excluding Interfin Commercial Bank, which is under curatorship, and Royal Bank, which is in liquidation) (Monetary Policy Statement, January 2013).

COMMERCIAL BANKS

Commercial banks often operate through a network of branches, agencies, and mobile facilities, providing current and deposit account services as well as loans and overdrafts to businesses and individuals in need. They also provide foreign exchange services, such as accepting deposits in foreign currency (Ofori, Danquah and Zhang, 2017). Financial guidance and clearing mechanisms are also a part of his responsibilities.

Roles:

- Makes the market, in the sense that they stand ready to purchase and vend currencies at the exchange rates declare, acting via their foreign exchange dealers.
- They also deal with customers on the retail side, whilst on the wholesale side they deal in the interbank.
- They participate mainly as speculators.

TABLE 1. 1: ARCHITECTURE OF ZIMBABWEAN BANK INDUSTRY

Registered Commercial Banks	Registered Building Societies	Registered Saving Banks
AFC Bank	Central Building Society	African Post Office Savings Bank
NMB Bank	CBZ Building Society	
Steward Bank	FBC Building Society	
Nedbank Zimbabwe Limited	ZB Building Society	
FBC Bank Limited		
Ecobank Zimbabwe		
ZB Bank Limited		
First Capital Bank Limited		
African Banking Corporation		
Stanbic Bank Zimbabwe		
Standard Chartered Zimbabwe		
CBZ Bank Limited		
Metbank		

Source: RBZ Publications

Aside from the liquidity difficulties caused by the lack of an active interbank market, Zimbabwean banks' ability to operate smoothly is hampered by limited access to affordable external credit lines and the lack of a Lender of Last Resort. Despite this, the financial industry in the country is typically safe and robust (Monetary Policy Statement, 2012).

1.3. PROBLEM STATEMENT

There's an adverse impact on economic performance caused by inflation, business viability, savings and investment patterns which all eat away on bank profits. The negative gap between interest rates and inflation means banks are worse off when they advance their funds to borrowers, they get a negative real return yet interest income contributes the principal chunk of their profits. The traditional income stream of commercial banks is no longer profitable, what options are there for banks to survive - a question that can only be answered by a scientific-based research.

Thulani (2012) studied the link between inflation and interest rate spread in Zimbabwe, as well as the validity of the Fisher effect hypothesis. The study used annual time series data for a twelve-year period commencing in 2000 and ending in 2012. The study discovered that interest rates and inflation have a long-term association. Previous research, such as Liu et al. (2012), Ubide (2014), Leheyda (2016), and Khan et al. (2016), have looked at the factors that influence banking lending rates and performance, as well as how central banks employ monetary policy to govern money markets. It is clear from these past studies that none of them looked into the effects of inflation on the new profitability of the Zimbabwe Commercial Bank. This study aims to close the gap by determining the impact of inflation on the profitability of Zimbabwe Commercial Banks.

1.4. RESEARCH OBJECTIVES

Primary research objective

- i. To establish the relationship between inflation and Zimbabwean Commercial Banks performance

Sub Research Objectives.

- i. To ascertain the impact of inflation on Return on Assets of Zimbabwean Commercial Banks;
- ii. To determine the impact of inflation on Return on Equity of Zimbabwean Commercial Banks;
- iii. To find out how inflation influences Net Interest Margin of Zimbabwean Commercial Banks; and
- iv. To establish the challenges faced by Zimbabwean Commercial Banks through inflation.

1.5. RESEARCH QUESTIONS

Primary Research Question

1. What is the relationship between inflation and Commercial Bank's performance indicators?

Sub Research Questions

- i. What is the impact of inflation on Return on Assets of Zimbabwean commercial banks?
- ii. What is the impact of inflation on Return on Equity of Zimbabwean Commercial Banks?
- iii. How does inflation influence Net Interest Margin of Zimbabwean Commercial Banks; and
- iv. What are the challenges faced by Zimbabwean Commercial Banks through inflation?

1.6. JUSTIFICATION OF THE STUDY

Financial sector development and increased provision of financial intermediary services are linked to economic growth, according to a large body of literature. Through misguided policy decisions, inflation can stifle financial intermediation. Inflation can have an indirect and detrimental impact on an economy's growth or performance by disrupting the financial sector's smooth functioning. Thus, it is envisaged that by determining the influences of inflation on banking sector performance, policymakers will be able to devise effective strategies to mitigate the detrimental consequences of inflation on the sector's performance. In addition, the study is anticipated to yield policy recommendations that would aid in the fight against inflation.

This research also aims to enhance the understanding of the theory and models surrounding the influence of inflation on bank performance metrics in emerging economies from an academic standpoint. The conclusions of this suggested study will thus have an impact on policy restructuring in order to protect financial intermediaries by targeting inflation and other variables.

The investigation will be utilized by commercial banks to develop strategic measures in order to protect depositor funds and boost profitability in the face of inflation. It is also believed that other scholars will find this suggested study beneficial in their research, as there is inadequate writings on inflation in Zimbabwe and its effects on bank performance.

1.7. ASSUMPTIONS OF THE STUDY

This research is founded on a number of expectations but the most paramount which are worth mentioning are listed as below;

- bank performance is largely measured by profitability.

- inflation impacts on bank performance manifest themselves through inflation itself, interest rates, statutory reserves and other variables like the exchange rate.
- The investigation team has access to accurate and unbiased data. This means that the people who will be interviewed will be able to shed light on and reveal the techniques used by successful banks. The data and information obtained in this manner are guaranteed to be private and confidential.
- The study has ample time and resources to complete all of the necessary steps.

1.8. DELIMITATIONS

This paper's thrust is mainly on commercial banks including but not limited to First Capital Bank Limited, Steward Bank, Stanbic Bank, ,CBZ Bank, ZABG Bank, ZB Bank, FBC Bank, MBCA Bank, NMB Bank, Metropolitan Bank and

Though based on these commercial banks the paper will also borrow cases from Germany, especially for the period 1923 to the 1940s, Argentina, Bolivia, Italy and any other countries that once experienced the kind of politically motivated periods of inflation currently in Zimbabwe.

1.9. LIMITATIONS OF THE STUDY

The investigator is expected to meet a number of defies because of the strenuous and confidentiality nature of the data and information involved and chief among these challenges are the following;

- Information access - In the eyes of the banks concerned, the information necessary is usually confidential. Some people may be hesitant to share such information, thus any responses must be guaranteed that their evidence will be preserved with the highest privacy and discretion.
- The central limit theorem violation- due to time and resource restrictions, the review period has been abbreviated, which is likely to undermine the quality of the results obtained.
- time constraint- Due to other academic responsibilities, the study team's time is constrained, which will stymie progress in terms of the timeliness with which compilations and resolutions are made available to the public.

Hypothesis

The study tries to ascertain the following hypothesis;

H0: There is a relationship between inflation and commercial banks performance indicators.

H1: Inflation does not affect commercial banks performance indicators.

Definition of terms

Inflation- a general rise in the price levels of a basket of products and services over time.

Loanable funds- this is the amount of funds that the providers and/or demanders are effectively willing to lend and/or borrow at a particular interest rate. As the interest rate goes up the demand for these funds goes down while the supply rises. The opposite is true when the interest rate is falling.

Performance- It's a reflection of what a bank is harvesting, as assessed by profitability and other characteristics, depending on the specific situation.

Profitability- a measure of net residual income after deducting costs and tax that is earned by an organization.

Qualitative technique- a method of analyzing data using other non-numerical measures which are qualitative in nature.

Quantitative technique- an analysis method that explains a relationship between variables in numerical terms.

Regression analysis- a statistical forecasting method used to depict and evaluate a association between two or more variables.

Statutory reserves – a certain variable percentage of commercial banks' funds that should be kept with the Central Bank for money supply control purposes.

Strategy- this a game plan of actions that an organization employs in an effort to achieve its objectives.

Variable- is an observation that has a relationship with another, the relationship being positive, negative or unrelated.

1.10 CHAPTER CONCLUSION

The section predominantly concentrated on the Zimbabwean economy's backdrop and how various economic, political, and government policies contributed to the country's various inflation rates. The backdrop of the whole banking business, as well as annual inflation numbers from 2000 through 2022, have been provided. The reader was given an overview of commercial banks' duties and current operations in order to gain a better understanding of the institutions that will be utilized as case studies in the assessment of the influence of inflation on banking sector performance. The research problem, as well as the study aims and questions, were examined. The study objectives and questions will serve as a guide to assess if the recommendations satisfy the goals set forth in this first chapter at the conclusion of the study. It should be mentioned that knowledge of the financial industry, as well as an understanding of how elements like inflation might affect bank operations, is a necessary ability for management to attain strategic objectives.

CHAPTER 2: LITERATURE REVIEW

2.0 INTRODUCTION

The chapter conceptual outline of writings from diverse writers. The chapter reviews past studies and sought to answer the investigation intentions which are to scrutinize the bearing of inflation on banking performance, discover the stimulus of inflation on interest rates and affect money-making bank loaning and investment in Zimbabwe.

2.1 Definition of Inflation Rate

It can be demarcated as a skyward movement in the average price level. Its rate is the percentage alteration in the price level (Ofori, Danquah and Zhang, 2017). The formula for the annual inflation rate is:

$$IR = \frac{CyrP - LyrP}{LyrP} \times 100$$

Where:

IR = Inflation rate

CyrP = Current Year's price level

LyrP = Previous Year's price level

2.1.1. Inflation Measurement

Inflation measurement can be impacted by variations in the value of the basics supplied in the Consumer Price Index (CPI). The population use of goods and services is reliant on the specific country as the index is based on a variety of basics. Some commodities will showcase a variation on the price index and this is weighted based on the content of the consumers overall spending. Special bargains that raise the spending habits of customers can also influence CPI since there is a resultant adjustment in the expenses patterns of the customers which influence the weighing of the index (Comley, 2015).

2.1.2 Definition of Financial Sector

The banking sector is divided into official and unofficial sub-sectors, each of which provides a variety of financial services and goods to an economy. Banks, stock exchanges, insurers, credit unions, microfinance organizations, and bankrollers are all part of the financial industry. (Marcus et.al).

2.1.3. Importance of Financial Sector

The aspect of financial organizations is to facilitate the transfer of funds between individuals and businesses. Financial intermediaries make it easier for money to flow through direct and indirect routes. Savers (surplus spending units) obtain direct financial claims or assets issued by people who use the funds, borrowers, in the direct flow of funds (deficit units). Gatherers of funds prefer to deposit their funds with a bank, which then lends the funds to the borrower in the form of bank loans in the indirect channel. As a result, buying and selling debt claims is regarded as the primary activity of intermediaries. Financial intermediaries, particularly banks, contribute to the reduction of illiquidity that builds up in the form of direct debt. Lower interest rates result from more liquid assets, which encourages people to invest more (Ofori,Collins,Frimpong,Benjamin,Adjei,Danquah& Zhang, 2017). Sebede (2014) emphasizes that a financial sector's job is to reduce risk in financial dealings by assembling and diversifying risk variables, as well as to lower the cost of financial intermediation by leveraging economies of scale and scope.

The pooling of savings and subsequent redirection of these funds into investment doings, which pointers to the optimization and apportionment of available resources in the economy, is also a chief core of the financial sector, according to Sebede (2014). According to Locher, Brauchbar & Partner AG, Basel (1998), the financial sector is critical to a country's economic and social growth, and hence fulfils three primary functions. The financial sector of a country provides savings deposit services, with attention given to the security and long-term value of the deposits, as well as loans. Local and international payment transactions are also handled by financial institutions. The financial zone becomes a self-sufficient system of services only when it can meet the needs of its customers in all segments of the economy on a eternal, maintainable and effective basis.

Sukirno's (2017) investigation supports the idea that the financial industry, through the banking system, produces a well-diversified credit portfolio, which is a key aspect of efficient credit allocation. Because there is a significant attention of credit in a few areas of the

economy, the financial sector is exposed to the performance of these segments. This diversified portfolio helps decrease credit risk.

Merton and Bodie (2012), in their archetypal investigation of the financial system, recognized five key jobs of a modern financial sector. These are:

1. a instrument to integrate and syndicate economic resources so as to breed large pools of capital;
2. an instrument to relocation economic resources across time and space;
3. a risk-sharing instrument- Risk-sharing favours both single investors, who can spread their money across a variety of businesses, and borrowers, who can get funding for projects that would be too hazardous for a single investor but are suitable when shared among a group of investors;
4. a method of lowering the fee of information A present financial sector is a massive information exchange - on asset prices, creditworthiness of economic agents, and the chances of a specific economic enterprise succeeding; and
5. last but not least, sustaining all , an instrument for the reimbursement and clearance of outflows and financial claims, without which the exchange of goods and services would be unbearable.

"To replenish productivity expansion, inflation must be quenched quickly, and persons must have trust that inflation will not return," writes Sebede (2014). Government rules that force central banks to produce money, according to Sebede, are the primary cause of inflation. As a result, monetary authorities must play a role in taming inflation.

2.1.4. Bank Profitability

According to Trujillo-Ponce (2018), profitability can be defined as the differences between revenues and costs. Bhati, De Zoysa, & Jitaree (2019) assert that profitability is the level of profit in relation to the volume of activities of an organization. Majority of similar studies have taken return on assets (ROA) and return on equity (ROE) as the measurement of bank profitability. ROA is used to understand how the bank is successful in utilizing its assets to generate income whereas ROE is used to understand how the bank is able to provide returns to the shareholders on their invested money (Nurul, 2019). However, the major drawback of using ROA is that it includes off balance sheet items as well whereas the drawback of ROE is

that different banks have different capital. As such bank with lower capital will have higher ROE (Davydenko, 2010)

In addition, a handful of literature reviewed have also used net interest margin as the proxy to measure bank's profitability. Net interest margin (NIM) is the dissimilarity between the interest earned on loans and interest paid on deposits (Nguyen, Perera, & Skully, 2017). This is the main source of bank's income. Authors like Kosmidou, (The determinants of banks' profits in Greece during the period of EU financial integration. 2008), Demirgüç-Kunt & Huizinga (1998), Shen et al. (2009) among many others have used NIM as measure of bank's profitability.

2.1.5. Bank Profitability Indicators

2.1.5.1. Return on Assets

ROA is reflected by accounting specialists to be one of the most essential ratios for shaping a bank's profitability (Hempel & Simonson, 2019; Rose & Hudgins, 2012; Trujillo-Ponce, 2013). The profit produced per currency unit of an asset is measured by this ratio (Athanasoglou et al., 2008; Trujillo-Ponce, 2018; Dietrich et al., 2014).

Bordeleau and Graham (2015), for example, examined the influence of liquid asset holdings on bank profitability in a working paper for the Bank of Canada. The banks in their sample were from the United States and Canada, and the study period spanned from 1997 to 2009. The dependent variables of profitability in this study were ROA and ROE, which were then regressed against a non-linear expression of liquid asset properties and a set of bank-specific and macroeconomic regulator variables like inflation. According to the findings, banks that hold some liquid assets are more profitable. In other hand, the writers claim that there is a point at which more liquid asset holdings reduce profitability. To add on, outcomes delivered mark that the aforesaid association between liquid assets and profitability, depends on commercial archetypal of each bank and risk of funding market worries.

Khanal (2019) looked at the factors that influence inflation in ten Nepalese commercial banks. For the study, panel data analysis was done for the years 2017 to 2016. The regression analysis indicated that ROA has a considerable beneficial impact on bank profitability.

In Jordan, an examination was also undertaken to generate an inflation effect on commercial bank performance criteria such as profitability (Al-Harbi, 2017). To calculate the bank's profitability, this study used inflation as an independent variable and ROA and ROE as a reliant variable. Mathematical approaches and ratios were used to analyse financial data. When calculated by the study's method, spending and rapid ratios are favourably connected with profitability (ROE). When calculated by, the capital ratio had a beneficial effect once again (ROA).

2.5.1.2. Return on Equity

Extra broadly employed return proxy is a ROE ratio, which measures the return on shareholders' funds (Athanasoglou et al., 2008; Trujillo-Ponce, 2018; Dietrich et al., 2014).

Al-Homaidi, et al., (2019) tried the elements of inflation of Indian banks for the period 2008-2017 and used panel analysis. The outcome signposted that ROA has a negative effect on banks' profitability.

Khanal (2019) looked at the factors that influence liquidity in ten Nepalese commercial banks. For the study, panel data analysis was done for the years 2017 to 2016. The regression results revealed that ROE has a noteworthy and negative consequence on commercial bank profitability in Nepal.

Munteanu (2013) observed a minor positive and negative influence of inflation on both ROE and ROA using panel data from Eastern and Central European commercial banks from 2003 to 2010, indicating a nonlinear link between the variables.

Sujan and Probir (2020), on the other hand, discovered a positive relationship between ROA and cash and bank balances with low liabilities and ROE. From 2003 to 2012, they looked examined the influence of inflation on the profitability of Nigerian banks. They also discovered that there had no important connection between inflation and profitability in Nigeria. There was a harmful association between inflation and bank performance, and vice versa. The data for this investigation came mostly from the management and financial statements of the selected institutions, and it was analysed using the Pearson correlation methodology.

2.1.5.3. Net Interest Margin

Financially, NIM is the difference between interests paid and interest received, altered for the bank's total quantity of interest-generating assets. This indicator demonstrates how well a

bank manages its investment decisions (mostly in relation to its loan portfolio) in comparison to its debt obligations. In conclusion, NIM is a metric that displays how profitable and developing a bank is (Drehman & Nikolaou, 2018). It displays how much interest a bank earns on its loans against how much interest it pays out on its deposits.

Chen, et al. (2018) looked studied the association between bank performance, inflation, and risk for 12 commercial banks in advanced financial countries from 1994 to 2006. Inflation is an endogenous determining aspect of bank performance as measured by NIM, ROA, and ROE, according to the investigation.

Ferrouhi (2014) conducted another study that looked at the impact of bank inflation on profitability in Morocco, as assessed by NIM. The author employed the aforementioned profitability ratios, twelve-year inflation rates, and other macroeconomic and bank-specific data during the period 2001-2012 to establish the relationship between inflation and profitability. The results were mixed, and the profitability-inflation link produced varied depending on the model chosen.

2.2 Theoretical Literature Review

2.2.1 Inflation and bank profitability

Inflation, according to Bisat and Johnson (1989), is bad (especially when it occurs unexpectedly) because it misrepresents the running of the price system, roots illogical redeployment from debtors to creditors, creates incentives for speculative rather than industrious investment actions, and is usually expensive to eradicate. Money validation might get out of hand as a result of inflation. Lipsey and Chrystal (Lipsey and Chrystal, 2014) In the worst-case scenario, hyperinflation occurs, in which money ceases to be a functional medium of commerce and a store of value. However, inflation rates of 50,100,200 per cent or more have accrued year after year in some countries and have proven to be manageable as people adjust their contacts in real terms. Bisat and Johnson's arguments hold water in the Zimbabwean context if one was to look at the banking situation before the failure of entities like Trust, Barbican, Royal and others. According to RBZ publications these banks speculated in fixed slow moving assets and to be precise Trust bank is said to have invested heavily in bricks thus leading to a liquidity crunch. In times of inflation banks are forced to deviate from their core business activities to engage in speculation because of the need to survive. Whilst the banks are claimed to have posted super normal profits for the half-year

ended June 2019 inflation adjustments reveal that most of these banks are actually making losses in real terms and this is the case for Standard Chartered Bank Zimbabwe.

2.2.2 The monetarist theory

Milton Friedman a renowned economist said, “Inflation is permanently and everywhere a monetary marvel....” This means that inflation is caused by purely monetary activities such as the supply of money and that it has purely monetary consequences (Lipsey and Chrystal, (2014). However many forces may cause the price to rise. On the demand side, anything that moves the demand curve to the right gets this result. (Glake F.R, (1989).

Basically, inflation stems from a rise in money supply that in turn causes a rise in demand for goods and services. *Ceteris paribus* the general price level will rise. (Donbusch and Fischer, 1981) .The interest rates have an important consequence on the external worth of the local currency. It therefore puts pressure towards devaluation of the local currency. However for a devaluation to improve the trade balance, the elasticity of demand sum for imports and exports must be less than minus one (-1). It means that the quantities must have adjusted more than in proportion to the changes in relative prices. Therefore an escalation in the price of domestic goods shifts the net exports function downwards; that is an increase in the relative price of domestic goods lowers net exports volume. Marshal et al, (1989).

The current scenario in Zimbabwe has become more of a vicious cycle where there is no clear cut demarcation of causes, effects and controls as authorities seem to miss the real formulae to solve the country’s number one enemy. There is an array of factors and variables that are at play to see the prices rising every day. Included in these factors and variables are the interest rates, printing of money, shortages and supply bottlenecks, production disruptions, sanctions, budget deficits, an unfunded balance of payments deficit and a huge import bill matched to some pathetic export receipts.

2.2.3. Cost-Push Inflation Theory

The idea suggested that was developed by an income push from minor trade unifications confronted with an inelastic demand curve for labour, resulting in profit push produced by managed pricing of revenue split amid a collection of subcategories in the economy (Frisch, 1990). Sir James Stetuart (1776) proposed the cost-push theory, which states that price levels are influenced by competition and costs, and that dropping costs force sellers to lower their prices. A spontaneous increase in the yield level in the wealth stream produced the drop in output and employment, which was improved appropriately to the changes in demand

(Gordon,1974). Self-regulating growth in pay out or revenue demand causes cost-encouraged inflation. Cost-push Inflation is induced by an escalation in the price of other inputs like as raw materials and energy, as well as a rise in the price of money salaries. This type of inflation occurs when salaries upsurge quicker than labour productivity, according to Hall (1982). When there is no equivalent demand for labour, trade unions demand and win higher salaries. As a result, productivity does not increase correspondingly, and prices rise. The wage-push variation of cost-push inflation is the inflation induced by trade unions in certain conditions. It also implies that businesses may shift expenses to customers, resulting in increased profits.

2.2.4. Demand-Pull Inflation Theory

Keynes (1930) argued for the theory, emphasizing the causal role of monetary and non-monetary impulses, respectively. In its dynamic environment, the quantity theory deviated from a stable inflation to a persistent mounting change in demand powered by a persistent monetary accumulation. The Keynesian inflation classical can elucidate price increases that are triggered by fiscal or other non-monetary factors (Gordon,1974). By developing a model for the inflationary process, Keynes demonstrated that the price index would continue to rise. Furthermore, inflation occurs when the short-term capacity of output is basically eternal. The rise in the productivity value index can be linked to increased market expenditure. The development in income will tip to a growth in expenses since there will be an upturn in demand in the economy.

This hypothesis is complete, according to Slawson (2015), and it is the form of inflation that labels what happens in the global economy. The demand-pull hypothesis states that when the economy's demand grows rapidly, the producers in the entire economy are unable to expand the supply of commodities fast enough to fulfil the demand. As a result, people begin bidding against one another for scarce items, causing prices to rise. According to the profit expansion code, values are normally near their profit maximizing levels at all times, and whenever capacity utilization is high enough, marginal costs will commonly rise.

As an outcome, the country's aggregate demand for goods and services grows, resulting in inflation. Changes in monetary policies or private investor spending habits drive the Keynesian inflation model. Demand-pull inflation boosts a company's economic growth, causing prices to rise, resulting in more profits.

2.2.5. Inflation Effects

The impact of inflation on investment rest on whether the inflation is projected or unexpected. If it is fully predicted, the nominal interest rate on fixed-rate debt will climb at the same rate as inflation. The rate of price fluctuations affects net cash flow, which affects the firm's market value. (1989, Bisat and Johnson) If money generates no interest, however, an increase in the projected rate of inflation will lessen demand for real money balances and cause a shift into real assets. If the unpredictability of inflation rises in lockstep with the rate of inflation, then faster inflation means more uncertainty, which diminishes investment incentives. (1978, Nickell).

When money suffers depreciation and devaluation it invites monetary authorities and the government regulation and control measures. Inflation has the following drawbacks. According to Trust Economic review (2012), it produces uncertainty; people are unaware what the money they earn today will buy tomorrow. Improbability in turn deters productive activities, saving and investment. As the purchasing power of the monetary units turn out to be less foreseeable, general public recourse to other means of storing their wealth. This is true in Zimbabwe where people now opt to store their wealth in the form of real assets and other stable foreign currencies such as the American dollar (USD). A very small number of individuals and companies are depositing their funds with the banking sector thus the banker is deprived of his business.

Baumol and Blinder (1992) states that, inflation discourages country competitiveness in the international trade if this is not offset by a devaluation of the national currency against other currencies, it causes the country exports less eye-catching and makes imports into the country more attractive which in turn creates trade unbalance . The Fiscal and Monetary authorities in Zimbabwe usually devalue the dollar when it's long overdue for a number of reasons especially to control speculative activities. The recent devaluation of the dollar from Z\$1/US\$1 to Z\$84/US\$1 (December 2021) came at a time when most exporters were already forced out of business due to the non-viability of the exchange rate. According to Boyd and Champ (2014), inflation is a hidden tax on 'nominal balances' that is bondholders and current account holders denominated in the local currency lose the value of these accounts when the price level increases, just as their money has been taxed away.

High inflation has crippled banks in several ways; first it has caused isolation of the country's market, severe shortages of foreign currency, through the foreign exchange rate regimes

undertaken by the monetary authorities and the interest rates charges on borrowed funds are below expected levels, thus crippling the activities of Zimbabwean Commercial banks on the international market. Secondly the need to store wealthy in terms of money has been greatly reduced resulting in a decline in investments and deposits. Inflation affects interest rates and exchange rates, which in turn affect profitability of a bank.

Nikitin (1980) advocated that banks could hedge themselves against losses equally well as they can afford to increase their prices of services over and above inflation. He went further to state that the prices of services have been rising roughly 50% faster everywhere than those of commodities. Nikitin's thesis hold water in a number of respects especially when he emphasizes that money (money supply) is a necessary condition for inflation. On various occasions the government prints money to meet budget deficits, to eliminate the imbalance in the terms of trade, to repay international creditors like the IMF and to achieve other political mileages that are all salient features of Nikitin's work.

Nikitin explains that during individual phases of economic cycles, the finance and credit system becomes strained owing to the inadequacy of the accumulated part of surplus value and accumulated money savings of the population for covering investment. The banking system makes up for the shortage of funds by excessive issuing of money which eventually lead to "over crediting" of the economy and a chronic surplus of money in circulation; thus upsetting the existing correlation between commodity mass and the volume of means of payments. The banking system becomes deprived of savings in the long run.

Below are other effects of inflation on interest rates, nominal interest rates and exchange rates:

2.2.5.1 Inflation and the level of interest rates

Analysts routinely attribute changes in interest rates to changes in actual or anticipated inflation. Higher interest rates are associated with greater levels of inflation and with the increase in inflation rates, decline with lower inflationary expectations. If it costs more to buy goods, an investor who buys financial assets rather than real goods and services should earn a higher interest rate to compensate for the greater opportunity cost of foregone consumption. (Militala.W, 2012).

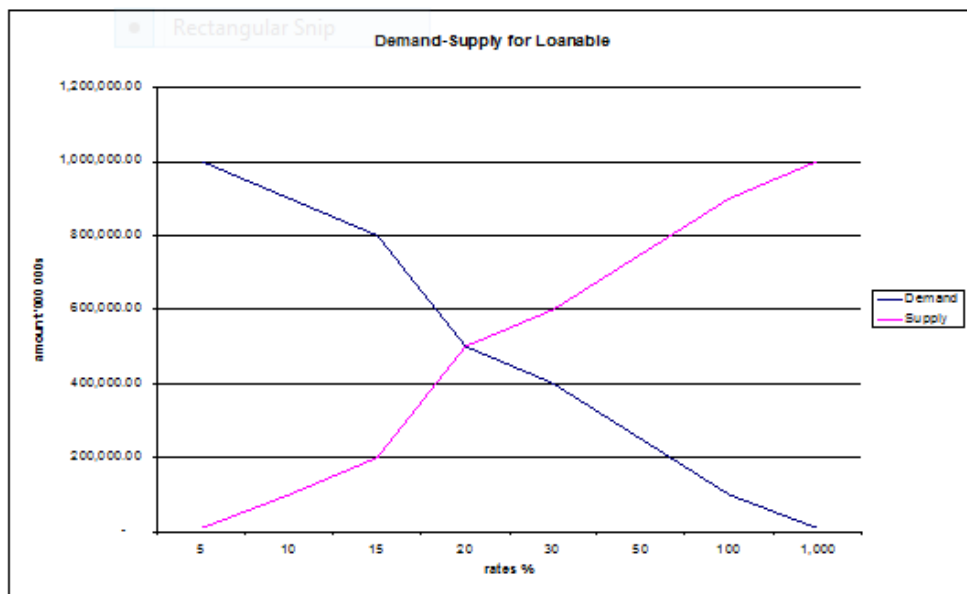
Maier (1975), "inflation involves such a great destruction of the real value of money in circulation that it usually provokes an economic crisis deep enough to regroup political forces

and impel currency reforms. Inflation is the super nova of the monetary firmament, exploding furiously outward only to collapse into the dark neutron stars of economic contraction". Maier's paper can be concluded in relation to banking sector by his statement;" inflation destroys money in circulation and substitutes it with foreign currencies or book-keeping units". In all cases that Maier looked at interest rates could not match the spiral trend to yield positive returns for savers and/or investors thus leaving the banking system with no deposits.

2.2.5.2. Influence of inflation on nominal interest rates

Higher expected inflation raises the demand for and lowers loanable funds supply. If expected inflation increases, lenders will lend less at prevailing interest rates because the money repaid in future will buy fewer good, hence worthless. Borrowers in contrast will borrow more to purchase goods today expecting to take interest and principal payments with depreciated dollars (as shown below).

FIGURE 2.1 : Supply Demand Pattern for Loanable Funds



Source: Raw Data

The demand for loanable funds falls as the interest rates increase while the loanable funds supply will be decreasing. The market will be equilibrium at 20% interest rate but due to other external controls from the RBZ violate the market forces function. The RBZ sets rates

that are in line with their inflation targets. At a rate below 20% the bankers will not be willing to advance so much so that the market will be short of loans, demand is in excess of supply.

2.2.5.3. How much does the nominal risk free rate increase?

According to Fisher, nominal rates of interest will increase by the same amount as the increase in expected inflation. He argued that the real interest rate be taken as constant and thus the equation, $I = r + n$.

Where,

I = nominal interest rate

r = real interest rate

n = the expected rate of inflation

This equation predicts that as inflation increases the nominal rate increases proportionately. Thus a affirmative connection between inflation and interest rates occurs (Melvin, 2012). Inflation in Zimbabwe hit 60% by December 2021 according to RB Monetary policy committee (2021). However, there is no positive relationship between inflation and interest rates as suggested by Fisher. In Zimbabwe interest rates are below the inflation rate (66, 11% as at December 2021). This means that investors are receiving a negative real rate of return (r), from Fisher's equation ($I = r + n$). He suggests that nominal interest rates should be the same with real interest rate plus the expected inflation rate.

This kind of development discourages investment activities, resulting in an adverse effect on the profitability of a bank. The spread between borrowing cost and lending rates is very minimum reducing profits to be earned by the bank. The interest rates offered on the Zimbabwean economy are not according to the parity conditions thus international trade is also affected.

A second theory proposed by Mundell and Tobins (2000) suggests that the increase in nominal rates will be less than the increase in expected inflation due to the real balance effects, wherein individuals save more when expected inflation rises. They suggested that if inflation increases (decreases) real interest rate decreases (increases). The rationale underlining this inverse relationship is what has been referred to as real balance or real wealth. An increase in inflation lowers the value of an individual's money balances because

the money will buy fewer goods and services. Since money balances are part of real wealth, real wealth declines. In order to increase real wealth to its previous level, individuals must save more of their income. This increased saving means there is a rise in the loanable funds supply such that the ex-ante rate declines. Mundell and Tobins (2000) suggest that the ex-ante real rate is not constant and market rates change subsequently in the same directions as expected inflation, but the change is less than that one on one.

The final theory proposed by Darby and Feldstein (2000) suggests that the nominal rate of interest increase by more than the increase in expected inflation due to an increase in taxes paid on nominal income. They argued that lenders are concerned primarily with expected after tax real rates and not before tax nominal rates. So when nominal market rates interest increase by the amount of expected inflation, more taxes will be paid than before. Hence the real return after tax will be low. For instance, let the ex-ante real return be 3% and the expected inflation rate 2% so that the nominal market rate is 5% (3%+2%). If investors are to be made as well off as they were before the increase in expected inflation, the nominal market rate would have to increase by more than the expected increase in inflation to make up for the additional taxes that must be paid (Melvin 2002)

Basically as inflation increases, interest rates should increase to compensate for the value of money lost during the depreciation of the currency. Lenders should charge a premium fee to compensate for the devaluation of the currency.

2.2.5.4. Spiral effects of inflation on Exchange rates

Zimbabwean commercial banks are also involved in international trade. , Stanbic Bank, First Capital, Standard Chartered and MBCA Bank are wholly foreign owned banks. CBZ Bank is partially owned by a foreign investor while, FBC Bank, ZB Bank, Metropolitan, AFC Commercial Bank and NMB Bank are owned by indigenous investors. The reported earnings of the foreign owned banks are heavily compromised by the overvalued Zimbabwean dollar. The current acute shortage of foreign currency in the market makes it difficult for these banks to actively trade in foreign currency denominated securities.

This entails that banks are losing heavily on potential foreign currency earnings. These commercial banks find it difficult to invest in global markets due to the scarcity of the stable hard currency leaving the bankers at a disadvantage. This implies that foreign exchange

regimes undertaken by the monetary authorities in trying to put inflation under control, has an impact on the banks profitability. Therefore another notable problem associated with inflation has been the critical foreign currency shortage. This is as a result of exchange rate regimes the government is currently undertaking. For the period between 2018 and 2021 the Reserve bank of Zimbabwe authorities adopted free float exchange rate regime and they introduced the tradable foreign currency Balance system. (RBZ publication, 2019). All these efforts have failed to deliver any measurable results.

The control of price under the equilibrium price causes excess demand and a black market is invited. The black market prices would charge higher than the equilibrium price after having bought at the controlled price. A maximum price setting neither will have no consequence (maximum price set neither at nor above equilibrium) or will cause a deficiency of the product (maximum price set below the equilibrium) thereby decreasing the quantity actually purchased and disposed below its equilibrium price. (Lipsey and Chrystal , 2012).

The existence of price controls has culminated into a thriving black market for the controlled products. The market is gaining ever-greater vitality, its operations illicitly sourcing most of limited supplies and the total disregard of price controls. The market is charging as much as 200% of controlled price thereby markedly increasing real inflation and intensifying suffering for the majority of the population (over 80% who barely subsist at below the poverty datum line).

Official and Black Market Rates

A fixed exchange rate system allows foreign central banks to buy and sell their currencies at a predetermined price in terms of the local currency. Official intervention is employed to keep the exchange rate constant (or near to it) (Donbusch and Fisher, 1981).

TABLE 2. 1: Black Market Rates

Currency	Official selling rate	Black Market rate
GBP	\$148,9216	\$170,00
USD	\$110,2960	\$150,00
EUR	\$124,8881	\$140,00
SDR	\$154,3691	\$200,00

Source: RBZ Publications 2021

Basically the rising exchange rate will continue to further inflation which in turn will render exports uncompetitive and they shrink and cost escalating will set in, given the pegged exchange rate. These exchange rate regimes cause isolation of the Zimbabwean banks on the international market. Zimbabwean securities are now less competitive internationally thereby reducing the profitability of banks.

Moreover banks are failing to pay accounts denoted in foreign currency due to foreign shortages. Foreign currency is sourced on the black market, banks are not supposed to engage in black market trading as it is illegal for banks and other registered companies to engage in black market activities. These are exposed to foreign currency risk which they cannot hedging against as foreign currency risk hedging is taken as part of the speculative business that the Reserve Bank of Zimbabwe is trying to eliminate on the Zimbabwean economy. This exacerbates the plight of Zimbabwean banks on both the home and foreign markets as they cannot actively trade in the foreign currency market due to these stringent controls

2.3 Empirical Literature Review

Inflation exacerbates frictions in lending markets, according to a study by Boyd and Champ (2013). Banks can easily alter nominal interest rates when credit markets are working smoothly, but frictions create barriers that make these adjustments harder. Interest rate ceilings imposed by the government are one example of such a stumbling block. Other roadblocks arise from banks themselves, when they respond to incentives and risks established by current laws, regulations, policies, and economic conditions in the best possible way.

Credit market roughness is more severe in less developed countries than in industrialized countries, according to empirical investigations. Inflation may have an impact on economic growth by lowering the quantity of credit accessible to the economy through the banking sector. Inflationary pressures can reduce the real rate of return on assets. Savings are discouraged by a lower real rate of return, whereas borrowing is encouraged. Fresh borrowers entering the market at this time are more probable to be of lower quality and default on their loans. Banks may ration lending as a result of the joined effects of reduced real returns on their loans and the influx of riskier borrowers. That is they have to either reduce the amount of loanable funds per individual borrower or increase the nominal interest rates. Increasing

nominal interest rates on loans results in low risk borrowers exiting the market, this lowers investment portfolios of the bank.

2.3.1 The influence of inflation on bank lending

Various economists have discovered that nations with high inflation rates have limited banking divisions and equity markets that are inefficient. R.J. Barro (2015). This consequence implies that inflation shrinks bank lending to the private sector, which is in line with the theory that an adequately high rate of inflation causes banks to ration credit. Barro's research went even farther, concluding that there is a deleterious association between inflation and real economic growth, an empirical conclusion that sparked a flurry of research.

High inflation adversely affects bank profitability, as shown by the research of Barnes, Boyd and Smith (2018). Their studies concluded that if upper inflation does not result in a proportionately greater nominal interest rate the result will be a rise in loanable funds demand and their supply falls. This exactly explains the Zimbabwean situation where there are no deposits to the financial system yet most customers are willing to borrow.

In a similar paper Levine and King (2013), Levine and Zervos (2012) financial intermediaries appear to play a crucial part in economic development. The palpable connection between the two findings is the likelihood that inflation might be upsetting real economic evolution through the financial markets-specifically by hurting them or encumbering their operations (eating on their profitability).

2.3.2 The influence of inflation on bank profitability

Real money market rates, real Treasury bill rates, and actual time deposit rates are all negatively correlated with inflation, meaning that when inflation rises, the real rate of return on these instruments lowers. In a study by Boyd and Champ (2003) it was noted on average, those countries with high inflation levels have zero real treasury rate of return. They also discovered that the banking sector's size and profitability are both negatively related to inflation. More evidence comes from survey data, which appear to corroborate the idea that banks may curtail loans when inflation rises. The World Business Environment Survey polled 5,000 enterprises in 49 countries about their difficulties acquiring external financing in 2019 and discovered that as inflation rises, corporations find it increasingly problematic to secure external financing

In October 2018 an International Monetary Fund delegation concluded that was sound with the following statement,” Zimbabwe’s financial system has shown remarkable resilience to

the very difficult macro-economic environment “. It was said to be sound and their stress testing indicated that the system was resilient to any significant shocks including credit , interest rate , foreign exchange risks and other risks inherent in the normal course of a bank’s operations.

Six months down the line the IMF delegation conclusion was proved wrong on two fronts;

1. The banking system was tottering and succumbing to a severe interest rate exposure
2. Asset composition shifted from short term to longer dated half year, year and even two-year treasury bills.

According to the Zimbabwe Independent Global Credit Rating (GCR) August 2019 Supplement by April 2019 these resilient banks were accruing approximately \$50 billion gross losses daily due to the asset and deposit interest disparity. The GCR Banking Bulletin made a number of conclusions that indicate that all is not well within the Zimbabwean financial fraternity as shown by a number of indicators. The rate of deposit mobilization declined sharply during 2019 as members of the public lost confidence in both the dollar and the soundness of the financial system at large. The private sector credit ratio to GDP fell astronomically from 87% in 2001 to a mere 21% by end of 2019.

In 2019 commercial bank assets grew by 399% to total \$94.3 million against a year on year inflation figure of 586%, cash liquid assets rose by 433% while advances by 227% all implying a contraction in real terms as they fail to surpass the inflation figure. Net interest margin contracted to 34% in 2019 from 47.1% in 2018 and continues to be on the decrease due to the restrictive reserve requirements, increasing levels of non-performing loans and the in-deplume rule.

Due to all these factors and a lack of investment opportunities commercial banks have resorted non-core operations centred on management of money market and liquidity positions thus increasing operational risks exacerbated by a massive flight of skills from the Zimbabwean banking arena. This development is evidenced by growth in the ratio of “other” income to total operating income that has been on the rise in most commercial banks. On average this income is said to have rose from 20.1% in 2018 to 33.6% in 2019 (GCR Bulletin, August 2019).

The GCR Bulletin concluded that profitability indicators are now highly distorted by hyperinflation, while many institutions have reported huge profits in their Annual Financial Reports adjustments for inflation indicate losses and an erosion of the shareholder's wealth.

2.3.3. Research Gap

Following a review of related literature and empirical evidence, it appears that the mainstream of studies have focused on the influence of inflation on bank lending and profitability. Despite the fact that, to the best of the researcher's knowledge, no investigation has been done on the actual impact of inflation problems on the performance of Zimbabwean commercial banks from 2018 to 2021. This investigation is anticipated to fill a knowledge gap in the existing literature. In Zimbabwe's multi-currency era, little to no research has been done on the effects, causes, and solutions to inflation. Furthermore, because inflation is one of the key hazards that commercial banks face, the study provides a complete framework for controlling inflation in the future

2.4 Conclusion

This chapter explored the literature review, which includes theoretical literature found in textbooks, manuscripts and any other material that covers the facets of this research that is inflation, banking sector performance, profitability and survival. Empirical studies carried by other researchers' point to the fact that the real rate of return on financial securities decreases as the rate of inflation increases, thus negatively affecting the bank profitability. Opposite to rationale and the assumptions of the Zimbabwean banking sector, has maintained a track record of recording super-profits in the face of these challenging operating conditions. This presents a very important concern that past scholars have failed to address: how can these institutions survive in a low-inflation environment? The next chapter tries to develop a research technique for developing solutions or answers to the topical question of how to survive in a high-inflation environment.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This section concentrates on the framework of the data collecting part of the research. The research is going to use both primary and secondary information for the differing building blocks of the project as follows; data relating to variables like inflation, interest rates, exchange rate will be sourced from already existing data sources like the RBZ and Central Statistics Office (CSO) while bank profits will be looked for from the banks in question. In order to collect primary data, a variety of research methodologies will be used, comprising but not restricted to questionnaires and interviews with samples that ought to signify the entire population. The remainder of this chapter covers the study design, the population to be studied, sample design and justification, and concludes with a preview of the next chapter's contents, which includes a presentation and analysis of this chapter's findings.

3.1 Research design

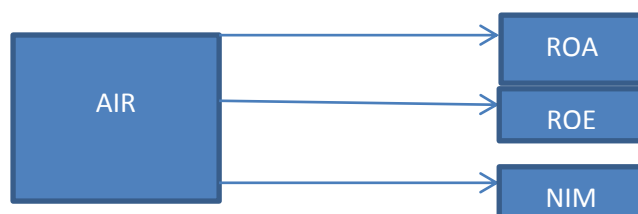
A study design, according to Cooper and Schindler (2015), is a plan for identifying the sources and types of information that will be used to riposte the investigation questions. A descriptive study design was utilized by researcher. Because the study's goal was to characterize the current situation regarding the elements that influence the link between inflation and bank profitability, a descriptive research approach was chosen. A descriptive research, according to Monsen & Van Horn (2018), is one in which data is collected without changing the environment and is not modified in any way. Because the study's goal was to scrutinize the influence of inflation on commercial bank profitability, this approach was chosen. "A descriptive investigation can be used to propose an association," according to Monsen and Van Horn (2018).

This is also a two tier project that uses both qualitative and quantitative techniques to make conclusions as follows; quantitative techniques was used to look mainly at the relationship of bank profits and inflation and included other variables that move inter-alia with inflation such as interests rates, exchange rates, while qualitative techniques was used to look at strategies that banks can employ to survive inflation which is the major thrust of this whole research. The relationship was analysed using regression analysis. The responses to questionnaires sent to analysts, industry captains, and advisors with an in-depth understanding of the Zimbabwean economic climate and apparitions as to how or what can be embraced in terms of approaches plans, or means by commercial banks to navigate these choppy waters were used to generate qualitative data. These questionnaires also looked at what other banks have already embarked on; on the understanding that such stances are likely or promise to bring positive results to the troubled finance players. The research was built on both primary data and secondary data. This secondary data formed the basis of analysing and interpreting the findings.

3.1.1 Conceptual framework

It is a graphical depiction of the variables being investigated in a study (Bourke, 2019). It is a crucial research tool designed to assist the researcher in gaining a better grasp of the situation. The link between the independent and dependent variables is depicted in the conceptual Framework displayed in Figure 3.1 below. This study is based on a framework similar to that used by Molyneux and Thornton (2012).The basis suggests that inflation will have a direct impact on bank profitability. The profitability indicators are ROA, ROE and NIM.

FIGURE 3. 1: Variables



3.1.2 Model Specification

The explanation of the process by which the dependent variable is formed by the independent variables is referred to as model specification (Arif & Nauman Anees, 2018).

The bulk of bank profitability research, such as Goddard et al. (2014), used regression models to evaluate the influence of numerous aspects that could be crucial in clarifying profits. Similarly, to examine the link between the independent factors (inflation) and the dependent variables, this study will employ quantitative Ordinary Least Squares regression (OLS) regression models (profitability). As a result, the paper's theoretical framework incorporates previous research (Athanasoglou et al., 2018; Arif & Nauman Anees, 2018; and Dietrich et al., 2014), and allows inflation to have a variable impact on profitability.

The impact of an independent factor on reliant variables is estimated using OLS (Cooper & Schindler, 2015). It also helps in clarifying how changes in the dependent variable disturb the independent variable. It also helps in shaping which variable proves that the independent variable is allied to the dependent variable, as well as their relationship. As a result, a multiple regression was used to determine the influence of inflation on the banking sector's profitability in Zimbabwe. The economic model is based on Fry (1996) who studied the inflation dynamics in Nigeria.

$$\pi_t = b_0 + b_1H_t + b_2R_t + b_3S_t + b_4E_t + \mu$$

Where, π bank profitability

b is regression coefficient

H is the inflation rate (hyperinflation rate)

R is the ROA

S is the ROE

E is the NIM

μ is the error term

t is time

3.1.3 Justification of the model

Theoretical and empirical evidence have centre on inflation, interest rates, statutory reserves, exchange rates among other variables as chief drivers of profits earned by commercial banks. Having established the inverse relationship between these variables

and bank profits it has become crucial to carry an in-depth scrutiny of the nature and strength of this dynamic association in the Zimbabwean context. The linear relationship between inflation and bank profits and the other variables is linear bearing similarities to the situation that Fry focused was trying to explain.

Diagnostic Tests

A diagnostic test is one of a number of processes used in regression analysis to determine the validity of a model in a variety of ways (Al-Harbi, 2017). To reinforce the validity of the results, robustness tests for multicollinearity, serial correlation, normalcy, and heteroskedasticity will be performed.

Multicollinearity test

When the explanatory variables are significantly associated with one another, multicollinearity occurs, and the standard error of the coefficients increases (Al-Harbi, 2017). The matrix of correlations between the distinct variables can be used to determine the level of multicollinearity. The Correlation matrix was used to perform a multicollinearity test. If the correlation coefficient is greater than 0.7 among the two or more predictors it indicates the presence of multicollinearity.

Normality Test

It is employed to test whether a dataset is normally distributed (Bonfim & Kim, 2017). If the variable is normally distributed the parametric statistics that are based on this assumption are used. If a variable fails a normality test, data is transformed to either to logs or square roots to make the data normal. Skewness and Kurtosis test was used to test for normality.

H₀: the residual follows the normal distribution

H₁: the residual does not follow the normal distribution

Decision rule:

Discard the null hypothesis if p-value is less than 0.05 of significance level. This means that the residual does not follow the normal distribution. However, we fail to reject the null hypothesis if p-value is greater than 0.05 significance level. This means the residuals follows the normal distribution.

Tests of significance

The fitness of the model under consideration was determined using analysis of variance (ANOVA) and the F-Test. The coefficients depict the impact of each variable on profitability. The significance results were evaluated at a 5% level of significance. The variation in the dependent variable owing to changes in the independent variables was calculated using adjusted R squared. The p-values were analyzed.

Stationarity tests

To check for stationarity, an ADF unit root test was used. If the model's variables are stationary at their own level, the research will continue to incorporate all of the model's variables. Further tests are made to test the various economic problems.

3.1.4 Research Population

According to Blanche et al. (2016), the population of a investigation is the greater pool from which sampling features are drawn and to which discoveries will be generalised. For this research, the population was the Zimbabwean banking zone. Data from the Reserve Bank of Zimbabwe (Bank Supervision Annual Report, 2020) endorses that, as at 31 December 2020 there were thirteen (13) registered and licenced commercial banks, (five) building societies, one (1) savings bank and one (1) merchant bank in Zimbabwe. This makes up a total of twenty (20) banks, thus the study population. Table 3.1 below shows the Zimbabwean banking architecture.

Choice of this population was premised on the fact that banks are of strategic importance to the economy as they dictate movement of funds in the financial system. Further, choice was based on the need to bridge the knowledge gap on the power of inflation on the financial performance of banks.

TABLE 3. 1: Architecture of the Banking and Microfinance Industry

Type of Institution	31 Dec 19	30 Dec 20
Commercial Banks	13	13
Merchant Banks ³	1	1
Building Societies	5	5
Savings Bank	1	1
Total Banking Institutions	20	20
Credit-only Microfinance Institutions	222	209
Deposit-taking Microfinance Institutions	7	8*
Development Finance Institutions	2	2
Total	231	219

**Includes Ndoro Microfinance and Cashbox Financial Services which are yet to commence operations.*

Source: Reserve Bank of Zimbabwe (2020)

3.1.5 Definition of Variables

The goal of this study was to see if inflation had an influence on the performance of commercial banks. The profitability of commercial banks was used to gauge performance in this study. Therefore, the study attempted to investigate the probability that independent variable causes changes in the dependent variables (profitability proxies) (Saunders et al., 2015). The researcher found numerous liquidity and profitability measures that were employed after examining the literature. An independent variable is a variable that is manipulated or modified to see how it affects a dependent variable, whereas a dependent variable can vary owing to changes in other variables (Al-Harbi, 2017).

Independent Variables

Just as there are numerous meanings of inflation, there are also sundry dealings of such risk. Inflation-the erosion of the dollar's purchasing power has a significant bearing in light of what a bank reports as year-end profits. Do the profits outweigh this erosion of purchasing power? Is the shareholder or investor better off by foregoing consumption to enjoy profits after period t which usually is a year? More often than not, if exact inflation

figures could be calculated most banks are failing to beat inflation rates thus meaning losses in shareholder's wealth.

Dependent Variable

Financial ratios examination is a regularly used practice for analysing bank performance (Halkos & Salamouris, 2004; Rahman, 2016). Horrigan (1965) categorizes financial statistics into two classes: liquidity and profitability, both of which are important topics in our research. Three key ratios will be used to as proxies for bank profitability (dependent variables) namely *ROA*, *ROE* and *NIM*.

3.1.6. Research Sample

Data will be collected from a poll sample of all the thirteen commercial banks in Zimbabwe, which represents about 65% of the total population. Choice of a sample of only commercial banks was premised on the fact that commercial banks lead the banking zone in terms of total assets, total deposits and total loans as at 31 December 2020, accounting for 90.03% , 90.86% and 87.48% , respectively (Reserve Bank of Zimbabwe, 2020). This then increases the confidence levels in reporting the research findings as the results can be a fair representation of the full population. Further a taster scope of this magnitude is large enough to minimise systematic errors that have potential to distort the results.

According, all variables from the sampling frame will be sampled, thus a convenience sampling technique will be used as it fits the purpose of the study. This choice is guided by the need to maximise efficiency while at the same improving confidence levels in representation of the entire population. This was the same approach that was adopted in a similar study carried out by Muthoni (2013) on the power of inflation on profitability of commercial banks in Kenya.

3.1.7. Data Analysis

Data analysis, as Sivia and Skilling (2016) point out, is the act of analysing all available data and evaluating the pertinent data that might aid in better decision-making. Two kinds of data analysis approaches, descriptive and quantitative, were employed in this investigation to examine the influence of inflation on commercial bank profitability. Similar strategies had already been employed in previous investigations.

STATA 14 was also used to conduct data analysis. STATA 14 is one of the greatest tools for data processing, importing data from other sources, creating summary data sets, merging data sets and error checking, and collapsing cross–section time-series data on either of its dimensions. STATA 14 was used because it provides normal analysis procedures and mostly used for econometrics.

3.1.7. Data Presentation

The researcher will make use of a range of data presentation tools containing pie and circular charts to provide a filmic interpretation of the fallouts of the research. Circular will be used charts due to their aptitude to show relative degree and to relate diverse features in the study. The study will also include tables and bar graphs as these utensils allow easier data interpretation and analysis. Software packages such as Microsoft Excel shall be employed in the presentation of data.

3.1.4.1. Data Collection Methods and Instruments

Primary Data Gathering

According to Sebede (2014), primary data is information gained by conducting a research project for the first time on a certain topic. It will almost always be congregated to reply precise questions, demonstrate a concept, or disentangle a problem that might otherwise go unnoticed. This data collection technique was utilized to obtain the profitability of the banks in the sample over the time era under consideration, as well as the survival tactics employed by these banks. For convenience of use in the model, the findings were averaged.

In this situation, primary data will most likely provide the researcher with useful information and/or data from respondents to both questionnaires and personal interviews. The primary data collected as part of this study will be used strictly for scholarly purposes. Data such as bank profits and survival methods are primary data in this situation.

Benefits

- Data is assembled explicitly for the determination of the project at hand. The significance and correctness of such data cannot be undervalued.
- The recent environmental conditions and time range are frequently reflected in primary data. This means that by obtaining primary data, one is not looking at

historical events that may or may not be relevant to the current situation, but rather is looking for the genuine factors at work right now. This essentially accepts that circumstances and conditions change for the better and for the worst; the environment is extremely lively and unpredictable.

Shortcomings

- Collecting primary data is difficult and costly since it requires a significant amount of resources and time to visit banks for the drive of interviewing and delivering questionnaires to respondents.
- Certain respondents may purposefully provide you with skewed information, particularly when it comes to sensitive material such as strategies and survival measures. By increasing the number of independent respondents, this will necessitate a more diversified study approach.

Secondary Data

Thulani (2012) postulates that secondary data is that earlier congregated, printed and printed data by other researchers or statisticians on other subjects that are straight or indirectly associated to this study project. In this instance all issues covering inflation, bank profitability and any other variable thereof is assumed to be relevant to this paper.

The investigator will assemble secondary data from the following sources;

- i. Economics Textbooks for strategies suitable for inflation.
- ii. Economics bulletins, reviews and journals
- iii. Monetary Policy statement Review Policy(s) [2018-2021]
- iv. Economic consultancy and the internet
- v. Secondary data form the basis for literature review.

Rewards

- Data collection is cheap since the researcher can quickly get information from books in the library, the internet, and other relevant materials such as journals and bulletins.
- It can be used to highlight what other scholars have already done, guiding the researcher on how to do study.
- It will not take up a lot of time for the researcher to gather.

Drawbacks of secondary data

- For the reason of the ever-changing and dynamic environment, secondary data may not be useful or accurate. This lessens the worth of any decisions made simply on its basis, necessitating the integration of primary and secondary findings in this study.

Questionnaires

Questionnaires are an alternative to personal interviews for gathering information (Melvin 2012). In this situation, the researcher will create questionnaires by designing questions and arranging them in a meaningful fashion. There will be two sorts of questions used by the researcher: open-ended and closed-ended inquiries. There are, however, some questions that allow respondents to comment on or explain certain aspects of the topic. These questions are particularly important in this case because they generate different responses from different people, which the researcher may not have included as an option in the questionnaires.

Advantages

- the respondents can reply at their own time when they are in a comfortable mood without any pressure.
- The questionnaire can produce accurate and straightforward responses if the questions have been well planned and designed and so important information for the project can be gathered.

Disadvantages

- the use of questionnaires roots postponements in the analysis of data. This is because it may take time for the questionnaires to get to the respondents.
- some questionnaires maybe overlooked and the collaboration from respondents is no certain.
- Because what is clear to an undergraduate student may not be clear to another individual, especially in circumstances when non-finance people are involved, questionnaires are prone to misunderstanding and misinterpretation.

Interviews

Interviews, according to Sebede (2014), entail meeting face to face with respondents in order to acquire information. An interview is a two-person dialogue in which the interviewer asks the interviewee for information. The researcher finds this strategy valuable because it allows her to interview a large number of people from various departments in a shorter amount of time while also allowing her to explore deeper. As a result, the interviews are meant to test the validity and applicability of the responses in answering the study questions.

Justification of interviews

- Interviews are effective because they allow busy executives who are the decision makers to give reliable material for the study.
- Particularly good at fabricating data which deals with subjects in depth and in detail.
- They are also elastic as alterations to the lines of enquiry are made during the interview itself.
- They are generally pre-arranged and scheduled for a suitable time and location thus certifying a relatively high response rate.

Limitations of interviews

- Other respondents are averse to reply. This sorts the comparison and coding of data difficult during the process.

- Interviews are also pricey as the cost of the interviewer's time and travel.
- Non-verbal manner is sometimes misjudged leading to inexact conclusions.

3.4.1.2. Data Reliability and Validity

In edict to ensure completeness, consistency, and legibility, questionnaires were thoroughly examined prior to coding. Pre-testing the questionnaires to check if the responses could be altered and if they were practical helped to eliminate areas that had been unsatisfactory. All of the data was gathered in order to eliminate errors. Data validity is an essential issue in clinical data trial administration, according to Brunnrmeir (2012). The most important goal is to keep the data safe. According to Bourke (2012), an instrument is considered valid if it accurately measures what it is designed to measure. Content validity, often known as "facial validity," is the most common type of validity (Thatcher, 2015).

The term "facial validity" simply refers to the legitimacy of a claim at face value (Parsian & Dunning, 2009). It refers to the extent to which the measuring equipment covers all of the study's exploratory issues (Cooper & Schindler, 2014). Face validity can be determined by simply showing the survey to a panel of people who will judge how well the instrument fits the standards. The test items for an instrument are independently assessed as essential, beneficial but not essential, or not necessary by a panel of experts (Cooper & Schindler, 2014). Face validity was determined in this study by asking professionals in the field (research supervisors) to decide if "the measure appears to reflect the idea concerned" at face value (i.e. be valid). As a result, study experts (research supervisors) were requested to look at the questionnaire to see if it was a good measure. The findings of the reliability test utilizing OLS and confirmatory factor analysis in Chapter four will give construct validity of the research instrument (4).

3.4.1.3. Ethical Considerations

Ethical issues do have an impact on research in both directions. Research ethics should be upheld by authors conducting studies. The researcher will be committed to the following ethical considerations in the carrying out of the research:

- Intentional contribution of respondents in the study. Furthermore, participants have rights to pull out from the investigation at any phase if they wish to do so;

- Respondents ought to contribute their informed consent to participate. The researcher will be dedicated to providing adequate information and guarantees about contributing in order for persons to wholly comprehend the insinuations of involvement and to make an informed, deliberate, and freely given decision about whether or not to participate, free of any pressure or compulsion.
- The investigator will uphold respect for intellectual property by credit of works of other authors used in any part of the dissertation with the use of Harvard referencing system;
- The use of aggressive, prejudiced, or other intolerable language will be dodged in the design of questionnaires and interview group questions;
- Confidentiality and namelessness of respondents is of a paramount importance; and
- Conservation of the maximum level of objectivity in debates and scrutinizes throughout.

3.4.1.3. Research Limitations

The study had a number of flaws and was dependent on a quantity of suppositions that must be acknowledged and possibly addressed in the future. The argument that the discoveries are appropriate to all financial institutions is not appropriate for this study. However, it is hoped that the study may be replicated to see how broadly the findings can be applied. Employees' perspectives on historical occurrences were also gathered as part of the investigation. The personnel were supposed to be stating the truth about their feelings about those incidents. Some employees reflected on specific occurrences that had a straight influence on their life in order to assess the control of inflation on the banking sector's performance. This, in turn, alters the research's findings and results to some extent. Finally, another drawback of this investigation is the flora of the data, which pertains to Zimbabwe's major commercial banks and may not be applicable to banks of lesser size or nationality. The discoveries may or may not be appropriate to other financial institutions. It is wished, however, that the investigation may be replicated to test the discoveries.

3.5 Conclusion

The approaches for collecting and presenting data, as well as the various motivations for using them, were discussed in this chapter. To collect data on bank profits, a descriptive methodology was adopted, while a quantitative technique was offered to examine the link between the variables in concern, which are bank profits, inflation, exchange rates, and interest rates. It will be collected through primary and secondary sources, and data will be offered via tables and conversations.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This section grants the interpretations and presentations of the outcomes based on the objective of the research which sought to establish the influence of inflation on the profitability of commercial banks in Zimbabwe. Also portrays scrutiny and outcomes of the research set out in research methodology. Regression analysis was done for the four (4)-year period in order to determine the reasonable inference on controls of inflation on the profitability of commercial banks in Zimbabwe. The research covered period 2018 to 2021.

4.1. Response Rate

Beneath is the diagrammatical demonstration briefing the response rate in the research.

TABLE 4. 1: Response Rate

	Occurrence	Percentage Total (%)
Responses	10	77
Non-response	3	23
Total	13	100

A trial size of thirteen (13) Zimbabwean Commercial Banks was used (N=13) from a total population of twenty (20). Conversely, not all of the firm's selected respondents collaborated by filling the questionnaires that were sent to them. Non-responding banks mentioned a sum of whys and wherefores ranging from confidentiality to security reasons.

Out of the thirteen banks of preferred sample size, it was pretty reassuring that there was a solid affirmative reaction from ten commercial banks, whereas only three defaulted. This translated to a seventy -seven per cent (77%) response rate. This is a very high response rate.

4.1 Background of Respondents

All in effort to eradicate or at least diminish investigation preconception and also to safeguard dependability and legitimacy of responses, the respondents were quizzed for material connecting to their background. The information was branded into job

position held, length of service and proportion of time spent in a specific bank. The outcomes are presented in the consequent sub-sections.

4.1.1 Job Positions

Below is the Table 4.2 showing the various job positions of respondents in the investigation.

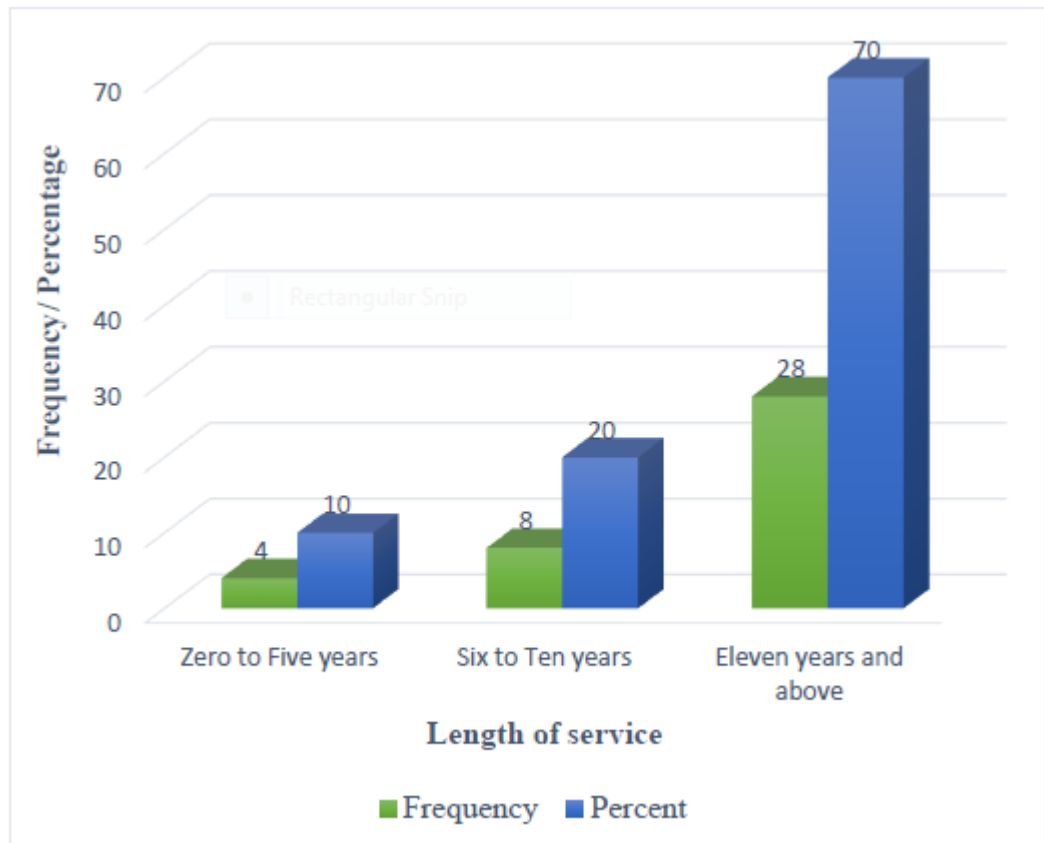
TABLE 4. 2: Job Positions

	Occurrence	Percentage (%)	Valid Percent	Per Cumulative Percentage (%)
Credit Analysts	3	23	23	23
Consumer Banking Managers	2	15	15	38
Branch Managers	3	23	23	61
Risk Analysts	5	39	39	100
Total	13	100	100	

The greatest percentage which is 39% was the Risk analysts' respondents. This was shadowed likewise by respondents who were Credit analysts as well as Branch managers with 23% apiece of the sample. While, only 15% of the respondents were Consumer Banking Managers. This ensured an all-round research response.

4.1.1. Length of Service

FIGURE 4. 1: Length of Service



As painted by Figure 4:2 above, it is seeming that adjacent to three quarters of the ten respondents, thus to be more accurate 70% have helped their current organisation for a bottom of eleven years or more. This discovery exposed that a mainstream of the respondents had immense familiarity and familiarity on their current organisation’s procedures and actions. Massive experience comes with maturity thus making the investigation conclusions more dependable as it is often said that “a fine wine matures with age”.

4.2.3. Challenges faced by Commercial banks through inflation

The other sub-objective of this investigation was to establish the trials confronted by banking sector due to inflation. The results of the respondents showed the following challenges:

- Banks and market participants make choices that they would not have made if the environment had not been clouded by inflation. As a result, market endings are less efficient than they would be in an economy without high inflation rates.

- High inflation lessens durable capital establishment by decreasing the incentive to save and effectively reduces long-term expenditure by increasing the cost of goods.
- It causes firms become less absorbed on core-business as they attempt to endure.
- If the host country's inflation rate is greater than that of other trading countries, a fixed exchange rate will be undercut by a decreasing balance of trade, resulting in foreign currency shortages.
- When inflation is larger than interest rate it re-distributes income from those on fixed incomes to those with variable income which may preserve speed with inflation.

4.1.2 Reliability Analysis

Cronbach's Alpha	Number of items
0.867	16

Cronbach's alpha statistics was employed in weighing the dependability of the research instruments. According to Melvin (2012) the least recommended alpha statistic for dependability is benchmarked at 70%. A usable result of 0.867 was detected centred on the 16 key questions. Deducing from these results it can therefore be concluded that the research instruments were reliable to the research as it is high enough to surpass the minimum 0.7.

4.3. Descriptive statistics

It is the word given to the breakdown of data that supports pronounce, display or abridges data and allows simpler interpretation of the data. Descriptive Statistics are employed to present quantitative descriptions in a fathomable manner. Table 4.3 below shows the summary characteristics of the individual variables that is, the mean, standard deviation, variance, skewness and kurtosis.

TABLE 4. 3: Descriptive Statistics

<i>STATISTIC</i>	<i>AIR %</i>
<i>Mean</i>	355.775
<i>Standard Error</i>	33.53802
<i>Median</i>	406.25
<i>Mode</i>	10.6
<i>Standard Deviation</i>	241.8461
<i>Sample Variance</i>	58489.52
<i>Kurtosis</i>	1.0222
<i>Skewness</i>	-1.0702
<i>Range</i>	589.4
<i>Minimum</i>	10.6
<i>Maximum</i>	600
<i>Sum</i>	18500.3
<i>Count</i>	52
<i>Confidence Level(95.0%)</i>	67.33038

Source: Research Findings

As earlier on alluded in Chapter 3, the skewness for a normal distribution is 0 whereas the kurtosis for a standard normal distribution is 3 (Blanche et. al, 2016). Thus, using the findings from the table above we can observe the following:

Annual Inflation Rate (AIR) is negatively skewed with -1.07, implying that the data is slightly off a normal distribution. However, on kurtosis is normally distributed since its less than the standard limit of 3.

To add on, Table 4.1 displays a summary of the inflationary spot of Zimbabwean Commercial banks. Zimbabwean commercial banks have an average AIR of 355.775%. The standard deviations imply the level of variation. Henceforth, AIR, has a very high level of variation, thereby implying to be more unstable when forecasting the performance of commercial banks in Zimbabwe.

4.2.Model Diagnostic Test results

4.2.1. Normality test results

Normality test was conducted to catch out whether the data set of the investigation was normally distributed or not.

TABLE 4. 4: Test for Normality

<i>Variable</i>	<i>Obs</i>	<i>PreSkewness</i>	<i>PreKurtosis</i>	<i>Adj Chi2 (2)</i>	<i>Prob> Chi2</i>
myResidual	50	0.3696	0.8324	0.9	0.6361

Source: Research Findings

Table 4.2 above show results on the Skewness and Kurtosis test for normality. The p-value is 0.06361. We fail to discard the null hypothesis because p-value is greater than 0.05 significance level. This means that the residuals follow the normal distribution, thus we can interpret to say the residuals are normally distributed.

4.2.2. Regression Results Presentation

4.2.3. Regression Statistics

TABLE 4. 5: Regression Statistics

<i>Regression Statistics</i>	
Multiple R	0.667655
R Square	0.64576
Adjusted R Square	0.55453
Standard Error	0.1371837
Observations	52

Source: Research Findings

Table 4.5 above grants the coefficient of model fitness on how inflation clarifies commercial bank profitability. The R Squared and Adjusted R Squared values of 0.64 and 0.55 respectively both signposted that there was a great unit of goodness of fit of the regression model used in the study. This meant that 64% of variance in the dependent variable (profitability) might be explicated by the regression model.

The Adjusted R squared is a coefficient of determination which enlightens the dissimilarity in the dependent variable due to alterations in the explanatory variables (Blanche et. al, 2016). Table 4.3 depicted that Adjusted R Squared is 55% which informs that inflation positively explains profitability of commercial banks. This means that approximately 55% of profitability is due to ROA, ROE and NIM at 95% confidence interval.

4.2.4. Analysis of Variance (ANOVA)

It was employed to define the linear relationship amongst the variables under exploration. The ANOVA was also used to trial the validity of the regression model pertaining the significance in the differences in means of the dependent and independent variables. It contains of calculations that offer information about levels of variability within a regression model and form a basis for tests of significance (Cooper & Schindler, 2015). According to Blanche et al. (2016), the "F" column delivers a statistic for testing the hypothesis that all $\beta = 0$ against the null hypothesis that $\beta \neq 0$.

TABLE 4. 6:ANOVA

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.060738566	0.060739	10.038112	0.031316584
Residual	50	2.925434243	0.058509		
Total	51	2.986172809			

Source: Research Findings

The ANOVA established a 0.03131 which is less than the 0.05 significance level, thus inflation has a significant consequence on the profitability of commercial banks in Zimbabwe as shown in Table 4.6 above.

To add on, the calculated value is larger than the critical value ($10.03 > 1.70$) which designates that the model is statistically significant. Therefore, from the results ROA, ROE and NIM have significant impact on the profitability.

4.2.4. Regression Coefficients Results

Regression coefficient informs whether there is a affirmative or adverse correlation between each independent and the dependent variable. The coefficient value connotes how much the mean of the dependent variable changes given a one-unit shift in the independent variable while holding other variables in the model constant.

TABLE 4. 7: Regression Coefficients for ROA

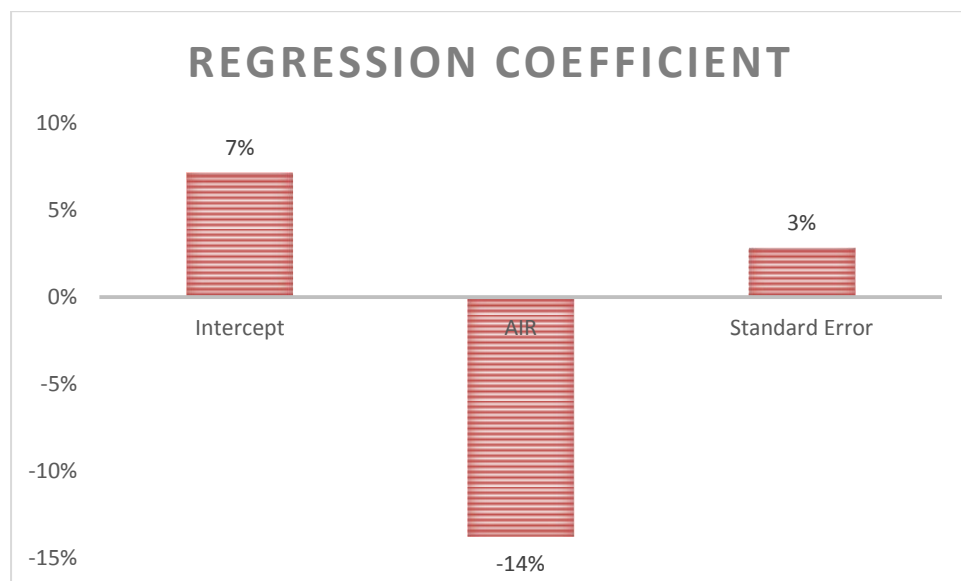
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.0711654	0.24065679	2.089065	0.041812
AIR	-0.13758	0.027942	0.473159	0.638159

Table 4.5 above shows regression results when the dependent variable used was ROA, that is the first regression model equation can be presented as underneath:

$$ROA = 0.0717 - 0.1376 + 0.0279..... (1)$$

The profitability as measured by ROA would be 7% when the inflation component is held at zero constant. Inflation is inversely linked to profitability; a unit increase in the volume of internet banking would result to an upsurge in profitability by a factor of -0.1376.

The causal effect of the regression coefficients on ROA can be depicted graphically as shown below:



In summary, the regression results depicted in Table 4.5 above indicate that, taking ROA as a dependent variable, there is a negative association of banks' performance in Zimbabwe with a rise in inflation. Thus, the fallouts show a negative association between ROA and inflation.

TABLE 4. 8 Regression Coefficients for ROE

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.03703175	0.060065461	5.444589	1.57E-06
AIR	0.18269679	0.0140051	1.018878	0.313166

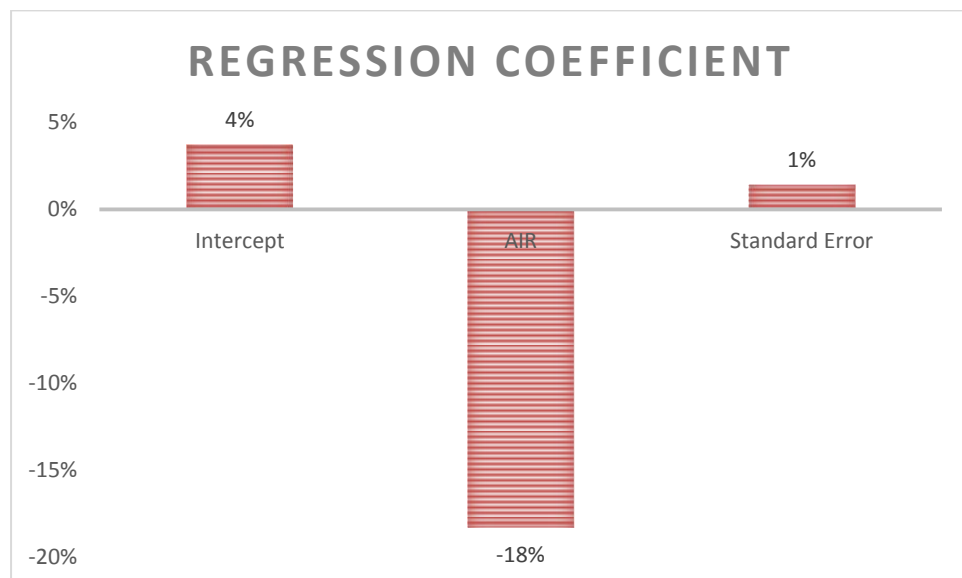
Source: Research Findings

Table 4.6 above shows regression results when the dependent variable used was ROE that is the second regression model equation which can be presented as underneath:

$$ROE = 0.037 - 0.1827 + 0.140..... (2)$$

The profitability of commercial banks as measured by ROE would be 4% when the inflation component is held at zero constant. Inflation is adversely interrelated to profitability; thus, a unit increase in the volume of AIR would lead to a lessening in profitability by a factor of about -0.1827.

The causal effect of the regression coefficients on ROE can be depicted graphically as shown below:



In summary, the regression results depicted in Table 4.6 above indicate that, by taking ROE as the dependent variable, there is an inverse relationship of commercial bank profitability in Zimbabwe with a surge in inflation. Thus, the outcomes display a negative association between ROE and inflation.

TABLE 4. 9: Regression Coefficients for NIM

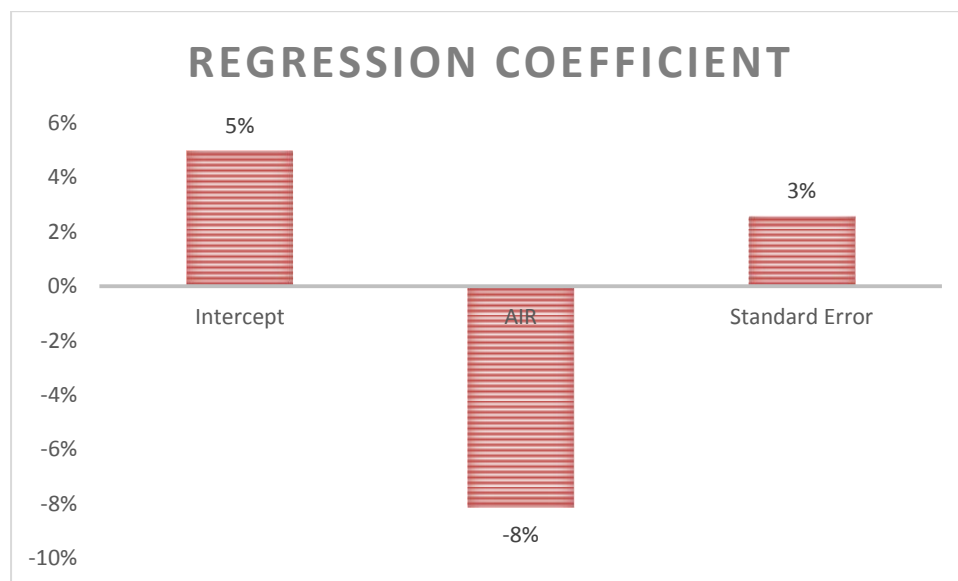
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.04974	0.066766919	6.848597	1.04E-08
AIR	-0.0812	0.0255676324	0.52197	0.603996

Table 4.7 above shows regression results when the dependent variable used was NIM that is the third regression model equation which can be presented as shown underneath:

$$NIM = 0.0497 - 0.0812 + 0.0256.....(3)$$

The profitability as measured by NIM would be 5% when the inflation mechanisms are held at zero constant. Again, here inflation is harmfully linked to profitability; thus, a unit upsurge in the volume of AIR would lead to a corresponding shrinkage in profitability by a factor of -0.0812.

The causal effect of the regression coefficients on ROE can be depicted graphically as shown below:



In summary, the regression results depicted in Table 4.7 above indicate that, by taking NIM as the dependent variable, there is a marginal, undesirable association of banks' performance in Zimbabwe with an upsurge in inflation. Thus, the outcomes confirm a marginal, damaging association between NIM and inflation.

4.3.Summary

The chapter covered the descriptive statistics, model diagnostic tests, regression presentation, and interpretation of results. An association between inflation and commercial bank performance was observed. The discoveries of the investigation shall be used in the following chapter. The next chapter wraps up the study by discussing the research results, laying out the framework for managing inflation crises and finally brings up recommendations.

CHAPTER FIVE: DISCUSSION; CONCLUSION AND RECOMMENDATIONS

5. Introduction

This episode gifts the general findings of the investigation and comparing them to the study objective in order to establish whether the research objectives were met. Further, the study contributions to the scholastic world and practical benefits are detailed. The chapter concludes with laying an inflation management framework, recommendations, and limitations of the study as well as further research suggestions.

5.2. Summary of Major Findings

The association of inflation with bank's performance has harvested diverse outcomes through dissimilar areas and time eras. Then, a wide study to define its influence on the Zimbabwean banking sector was required in order to formulate better policies and regulatory framework for the Southern African nation. Our general conclusion as regards inflation and profitability was arrived at by statistically analysing the inflation and profitability proxies. Based on the empirical study conducted, the researcher posits that inflation is a very important concept in the banking sector.

5.1.1. Negative association between bank profitability and inflation

The primary goal of this investigation was to specify the power of inflation on performance (profitability) in the context of commercial banking sector over the period 2018 to 2021. Therefore, considering the results as presented in Chapter 4, it is evident that inflation has a destructive consequence on the performance of commercial banks in Zimbabwe. This was reinforced by profitability ratios which showed that an upsurge in inflation has a corresponding inverse negative effect of performance of commercial banks.

From the findings on the coefficient of determination, the investigation establishes that there would be great variation in the profitability of commercial banks of Zimbabwe. To add on, the study results were significant for ROA and ROE and less significant for NIM.

However, all the dependent variables showed a negative relation of inflation spot with commercial bank performance.

These outcomes are consistent with a figure of studies in dissimilar states of the world. Investigations piloted in banking sectors of Iran, Tunisia, South Africa, Malaysia and other sections show a encouraging performance with an growth (Ofori, Danquah and Zhang 2017, Lipsey and Chrystal, 2014). Some studies have also revealed a trend of same nature. Their study also established a negative association between inflation and banks' performance.

5.1.2. Negative relationship between ROA; ROE and NIM with inflation

The results from linear regression analysis show that ROA is negatively affected by the inflation rates. ROE is also strongly, negatively impacted by inflation. NIM has a weak, negative relationship with inflation rates. These results all point to the conclusion that there is a negative impact of inflation on profitability.

However, these results are not in line with the result of other few scholars. The scholars explored the bearing of inflation on profitability of the private commercial banks in Bangladesh. They accepted the null hypothesis in their study which indicated that there is no noteworthy association between inflation and profitability. In support, it is worth noting that not every rate of inflation is detrimental to the survival of banks as shown by the smooth positive association between inflation and bank profits for rates below 100%. In fact low rates of inflation are a stimulus of economic growth and make a conducive environment for banks to excel. These ascertain is shown by the Zimbabwean rate of growth of profits for the period from 1999 when inflation was low. The rate at which profits were rising clearly outstripped the inflation rates, such periods enable to earn supernormal profits. This trend of good profits ended in 2003 when inflation begun to get out of hand. Despite this antagonistic position, the wider view remains that there is a strong negative influence of the inflation on profitability of commercial banks and this is supported by the research results of this study.

5.1.3. Critical Inflation Thresholds

- Outcomes of the investigation steered display that inflation altitudes of between 1% and 99% are marginally harmful to banking sector performance. Heights of inflation superior than 100% greatly harmfully disturb bank performance.
- When inflation is very little, at altitudes less 5%, real interest rates incline to be great and borrowing is condensed. To the bank the propensity to lend is great yet borrowing becomes costly to clients.

5.1.4 The challenges to the banking sector through inflation

- Banks and market participants make decisions that they would not have made if the environment had not been clouded by inflation. As a result, market outcomes are less efficient than they would be in an economy without high inflation rates.
- High inflation lessens durable capital establishment by decreasing the incentive to save and effectively reduces long-term expenditure by increasing the cost of goods.
- It causes firms become less absorbed on core-business as they attempt to endure.
- If the host country's inflation rate is greater than that of other trading countries, a fixed exchange rate will be undercut by a decreasing balance of trade, resulting in foreign currency shortages.
- When inflation is larger than interest rate it re-distributes income from those on fixed incomes to those with variable income which may preserve speed with inflation.

5.1.Conclusion

The dominant objective of the investigation was to inspect the influence of inflation on the profitability indicators which are ROE, ROA and NIM of Zimbabwean commercial banks. Also covering challenges faced by these banks due to inflation for the period 2018-2021.As of checked annual financial reports secondary data was composed. The quantitative research design was employed, and figures were run out to observe the

influence of inflation on profitability through OLS regression. It is summarised that the profitability of commercial banks under investigation is controlled by inflation. For that reason, corporations must reflect recommendations below and must design and instrument guidelines that in turn aid banks to retain inflation in check in order to maintain not only bank profitability but also sustainability through maximisation of shareholder wealth.

5.3. Recommendations

5.3.1. To the Zimbabwean Commercial banks

- **Operate beyond Zimbabwean borders**

This aids these banks to spread their proceeds streams as most countries in the SADC area and the whole African continent have low heights of inflation averaging nearly below 10%. By going international the commercial banks will be spreading away the systematic risks of operating in Zimbabwe.

- **Concentrate on corporate clients as niche markets**

On average most corporate firms have seasonal cash flows. If banks can tailor make loan products that exploit proceeds for such firms' likelihoods are they are likely charge off the inflation pressures. For the record Standard Chartered Bank Zimbabwe and CBZ Bank which have the biggest clientele base in Zimbabwe have been adjudicated to be financial sound and able to cruise through this inflation stage. Nonetheless Standard Chartered Zimbabwe has reported a loss of \$43 billion in inflation adjusted terms, the bank is safe since it is wholly owned by Standard Chartered which has international operations. On a consolidated level the Zimbabwe loses are insignificant to the holding company.

Commercial banks should go beyond the traditional role of proving funds to borrowers by offering advisory services especially to long term loyal customers. This will ensure that the bank has a certain level of deposits that comes from the members of the public even when savings are so low. Most entities in nearly all sectors including the agriculture, mining and manufacturing sector are facing viabilities though some of these

challenges are a management deficiency. Banks should take this opportunity to help such firms in terms of management of cash flows, risk mitigation and any other challenges. Establishing such cordial rapport with customers will entail that the customer is likely lodge his business transaction with that bank thus reducing its cost of funding in the long run.

- **Cost reduction actions**

Though this maybe a micro moderating ration it means that the bank can at least floppy through the problematic whiles until the economy normalizes. This can be attained through automation of errands and obligations, teaching of staff to surge their performance and competence. Banks should also attempt to make use of such amenities like the Productive Sector Fund (PSF), Distressed Company Funds and other amenities availed by the RBZ to contact low-cost reserves. This lessens the cost of funding by a fairly huge margin.

- **Strategic alliances**

This can be completed in a collection of systems like through mergers and acquisitions, funding projects on Research and Development, marketing and other forms. Such alliances should draw out beyond Zimbabwean boundaries. MBCA Bank usually accesses loan facilities from other international banks like the Afriximbank for its commercial clients through Letters of Credit.

Mergers and acquisition do not only aid in expanding earnings streams and threats but they usually provide enlargement to tougher entities that are able to tolerate inflationary defies. Watching at the recipients of mergers CBZ Bank is one of the forces to reckon with in the financial division and is actually appealed to be the major bank currently in terms of asset base. Its acquisition of firms like Datvest and Beverley cannot be underrated. FBC Bank another giant in the making is a product of mergers and acquisitions of banks that the economy thought at the edge of going under.

- **Borrowing from abroad**

Using the interest rate parity proposals banks can pick to access inexpensive funds from countries with which Zimbabwe is in good books. The obvious country which comes to mind is China not to indicate associates of the Asian community. In so doing the banks

will not only be saving them but will actually be doing the nation a giant progress in foreign currency generation.

- **Introduce new innovative products to mobilize savings**

The Zimbabwean commercial banks should make conscious efforts to introduce innovative products that encourage savings among the populace. Such products can be derivative products that are still new on the African continent.

5.3.2. To the Reserve Bank of Zimbabwe

- **Adopt a market driven interest rate regime**

The current arrangement where the RBZ sets interest rates in an effort to control the money supply has left banks at a compromising position as they earn negative returns on their loan books

- **Introduce a market driven exchange rate regime**

This will entail that Zimbabwean commercial banks can actively trade in international securities denominated in other foreign currencies

- **Address fundamentals that focus on production and an export stance and ignore statutory reserves**

5.3.3 To the Government

- **Engage the international community to rebuild the economy.**

Proposals for future research

After finalizing the investigation the succeeding are the dreary areas that upcoming investigators may find very vital in their pursuit for academic brilliance;

- inclusion of non-profit variables as performance indicators-taking profit as the only indicator of a bank performance and survival chances is prone to criticism due to the fact that profits are a function of

activities like speculation which actually increases the risk faced by the bank in question. This actually may mean that the bank is heading for failure like what happened to Trust Bank, Time Bank, Royal Bank and others that failed in 2003.

REFERENCES

- Al-Harbi,A(2017).Determinants of banks liquidity: Evidence from OIC countries.
Journal of Economic and Administrative Sciences, 33(2), 164-177
- Al-Homaidi, E., Tabash, M., Farhan, N., & Almaqtar, F. (2019). The Determinants of liquidity of Indian listed commercial banks: A panel data approach. *Cogent Economics & Finance* 7, 1-20
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. (2018). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of international financial Markets, Institutions and Money*, vol. 18, no. 2, 121-136.
- Arif,A,& Nauman Anees,A (2018).Liquidity risk and performance of banking system.
Journal of Financial Regulation and Compliance,vol 20 no2,182-195
- Blanche, M.T,Blanche, M..J,Durrheim,K,& Painter,D,(2016) .Research in practice.
Applied methods for the social sciences .Juta and Company.
- Barro, R (2012),Macroeconomic Crises since 1870.National Bureau of Economic Research.
- Bordeleau, E., & Graham, C. (2015). The Impact of Liquidity on Bank Profitability.
Retrievedfrom<https://doi.org.ezp.sub.su.se/http://www.bankofcanada.ca/en/res/wp/2010/wp10-38.pdf>.
- Boyd ,J,H et al(2003).The Impact of Inflation on Financial Markets Performance.
Journal of Monetary Economics 47,pp 221-248
- Boyd, J & Champ,(2004).*Inflation and Financial Market Performance: What Have We Learned in the Last Term Years*. University of Minnesota. Carlson School of Management and Federal Reserve Bank of Cleveland
- Bonfim , D,& Kim ,M(2017).Liquidity risk in banking is there herding. *European Banking Centre Discussion Paper* ,vol 24,1-31

- Bittencourt. (2007). Inflation and World Equity Selection. *Journal of Economic Dynamics and Control*, 28-42.
- Bleany, Michael & Manuela, Francisco. (2016). Inflation and fiscal deficits in sub-Saharan Africa. *Journal of African Economics*, 529-547.
- Chen, Y., Shen, C., Kao, L., & Yeh, C. (2018). Bank liquidity risk and performance”, *Review of Pacific Basin Financial Markets and Policies*, vol. 21, no. 1, 1-40.
- Coats, W. (2013). Zimbabwe: Challenges and Policy Options after Hyperinflation. *International Monetary Fund* (pp. 55-60). Washington DC: International Monetary Fund.
- Comley, P. (2015). *Inflation Matters: Inflationary Wave Theory, its impact on inflation past and present and the deflation yet to come*. London: Pete Comley.
- Cooper, D., & Schindler, P. (2015). *Business research methods* Tata: McGraw -hill Edition
- Correia, C. F. (2011). *Financial Management*. Cape Town: Mc Graw Hill.
- Creane. (2004). Finance and Growth. *Quarterly Journal of Economics*, 717-38.
- Degregorio. (1992). *The Effects of Inflation on Economic Growth*. London: European Economic Review.
- Dietrich, A., Hess, K., & Wanzenried, G. (2014). The good and bad news about the new liquidity rules of Basel III in Western European countries. *Journal of Banking & Finance*, vol. 44, 13-25.
- Donbusch and Fischer. (1981). *Inflation and the Theory of Money*. London: Martin Robertson.
- Drehman, M., & Nikolaou, K. (2018). Funding liquidity risk: definition and measurement. *Journal of Banking & Finance*, vol. 37, no. 7, 2173-2182.

- Ferrouhi, E. M. (2014). Bank liquidity and financial performance. *Evidence from Moroccan banking industry. Business: Theory & Practice, 15(4)*.
- Frisch, H. (1990). Inflation: definition and measurement. *In Theories of inflation (2nd ed., pp10-29)*. Cambridge Univ. Press.
- Ghirmay. (2004). *Nonlinear Adjustment to Purchasing Power Parity in the post-Bretton Woods Era*. Boston: Boston College Working Papers in Economics.
- Hakimi, A., & Zaghdoudi, K. (2017). Liquidity risk and bank performance: An empirical test for Tunisian banks. *Business and Economic Research, 7(1)*, 46-57.
- Hall, R. E. (1982). *Inflation: Cause and Effects*. Chicago: The University of Chicago Press.
- Hanke, S. (2008). *Zimbabwe: Hyperinflation to Growth*. Harare: New Zanj Publishing House.
- Halkos, P., Laders, E. & Salamouris, D. S. (2014). Efficiency measurement of the Greek commercial banks with the use of financial ratios: a data envelopment analysis approach. *Management Accounting Research, vol 15, no. 2, 201-224*
- Hempel, G. H., & Simonson, D. G. (2019). *Bank management: text and cases (5. ed.)*. New York: Wiley.
- IMF. "Statement by IMF Staff at the Conclusion of the 2019 Article IV Consultation Discussions in Zimbabwe." *Press release. International Monetary Fund. 18 Dec. 2019.* <<http://www.imf.org/external/np/sec/pr/2019/pr06282.htm>>.
- IMF, 2020. "World Economic Outlook Database October 2020." <<http://www.imf.org/external/pubs/ft/weo/2020/02/weodata/index.aspx>>
- Lyman, Princeton. "Zimbabwe: The Limits of Influence," *African Renaissance, vol.*
- Kairiza, T. (2015). *Unbundling Zimbabwe's journey to hyperinflation and official*

- dollarization2*. Tokyo: National Graduate Institute for Policy Studies (GRIPS).
- Kavila, William & Pierre, Le Roux. (2017). The role of monetary policy in Zimbabwe's episode. *African Review of Economics and Finance*, 133-166.
- Keynes, J.M. (2018). The postulates of the classical economics: In P. Krugman & R. Skidelsky (Eds), *The general theory of employment, interest and money* (pp. 5-20). Cham, Switzerland: Springer Science and Business Media.
- Khanal, S. (2019). Determinants of liquidity in commercial banks of Nepal. *International Journal of Economics and Management Studies*, 6(8), 11-19.
- Levine, R. (1997). Financial Development and Economic Growth. *Journal of Economic Literature*, 688-726.
- Lipsey RG & Chrystal K.A, (2009). *Principles of Economics 9th Edition*, Oxford University Press, Great Clarendon St Oxford, Britain.
- Maune, A. (2021). Is Money Supply the Cause of Inflation in Zimbabwe? *International Financial Statistics* (pp. 24-44). Harare: International Monetary Fund.
- Marozva, G. (2015). Liquidity and bank performance. *International Business and Economics Research Journal*, Volume 14, Number 3.
- Molyneux, P., & Thornton, J. (2012). Determinants of European bank profitability. *Journal of Banking & Finance*, vol 16, no. 6, 1173-1178.
- Monsen, E., & Van Hom, L. (2018). *Research successful approaches* (3rd ed). Chicago: American Dietetic Association.
- Munteanu, I. (2013). Optimizing Bank Liquidity in Central and Eastern Europe, 6(1). 83-90.
- Muthoni, M.R., (2013). The Effect of Liquidity and Solvency on the Profitability of

Commercial Banks in Kenya.

Nyoka , C. (2012). The effects of local currency absence to the banking. *Banks and Bank Systems*, 15-22.

Ofori,Collins,Frimpong,Benjamin,Adjei,Danquah& Zhang. (2017). The impact of money supply on inflation. *Imperial Journal of Interdisciplinary Reserach*, 2312-2318.

Olagunju, A., David, A. O., & Samuel, O. O. (2012). Liquidity management and commercial banks' profitability in Nigeria. *Research Journal of Finance and Accounting*, vol. 2, no. 7-8, 24-38.

Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International journal of economics and financial issues*, 3(1), 237.

Pindiriri, C. (2012). Monetary reforms and inflation dynamics in Zimbabwe.

International Research Journal of Finance and Economics, 207-222.

Reserve Bank of Zimbabwe (2005).*Report on Failed Banking Institutions:Banks and Banking Survey*.

Reserve Bank of Zimbabwe ,(2006).*Risk Management,Bank*

Licensing,Supervision&Surveillance Guideline No.1-2006;24-25

Reserve Bank of Zimbabwe,(2018),*Monetary Policy Statement (2016)*.

Reserve Bank of Zimbabwe(2020),*2020 Bank Supervision Annual Report*

Reserve Bank of Zimbabwe,(2019),*Monetary Policy Statement*

Rose, P. S., & Hudgins, S. C. (2012). *Bank management & financial services*. (9. ed.).

New York: McGraw-Hill.

Saunders,M,Lewis,P,& Thornhill,A (nd).*Research Methods forBusiness Students (Vol*

Seventh edition).New York : Pearson.

Sebede,M (2014). Monetary reforms and inflation dynamics in Zimbabwe. *International Research Journal of Finance and Economics*, 200-205.

Sivia, D, S, & Skilling, S.(2016).*Data Analysis: A Bayesian tutorial (2nd ed)*.Oxford: Oxford University Press.

Slawson,W.D.(2015).*The new inflation: The collapse of free markets*. Princeton, NJ: Princeton University Press.

Sujan, C. P., & Probir , K. B. (2020). Impact of Liquidity on Profitability: A Study on the Commercial Banks in Bangladesh. *Advances in Management & Applied Economics*, Vol. 11, No. 1, 73-90

Tabari, N. A., Ahmadi, M., & Emami, M. (2013). The effect of liquidity risk on the performance of commercial banks. *International Research Journal of Applied and Basic Sciences*, Vol, 4 (6), 1624-1631.

Thulani. (2012). *Relationship between Interest Rate Spread and Inflation in Kenya*. Nairobi: Moi University.

Trujillo-Ponce, A. (2018). What determines the profitability of banks? Evidence from Spain. *Accounting & Finance*, vol. 53, no. 2, 561-586.

APPENDIX 1: QUESTIONNAIRE

Please respond by placing in the suitable box and lettering in the spaces provided

1. Has your bank profits moved in line with inflation trends?

Yes No Not necessarily

2. How best can you describe the relationship between your bank profits and inflation?

Positive Inverse rlated

3. On average, has the interest rates been yielding a positive real return?

Yes Sometimes/Rarely

4. If no, what has your bank done (or doing) to curtail this anomaly which actually is a loss to your bank in inflation adjusted terms?

.....
.....
.....

5. Has your bank been able to maintain a positive margin without negatively impacting the demand for loans and advances?

Yes No

6. What trend is being taken by deposits?

On the increase on the decline not changing

7. In your own words, what would you say has been the impact of the overvalued RTGS to your bank in terms of foreign exchange trading book?

.....
.....
.....

8. What has been the impact of the stringent foreign currency regulations to your bank?

.....

.....
.....

9. Do you think the free float exchange rate regime is good for the current economic climate of inflation?

Yes

10. If no which regime would you suggest and why?

.....
.....
.....

11. Has your bank been paying dividends in the past ten years?

Yes No Yes but just until recently

12. If yes would you say the returns to the shareholders are any better than other investment avenues like the black market, property market, stocks etc?

Yes No fairly equal

13. What relationship exists between statutory reserves and bank profitability?

Positive Negative not related

14. What word best describes the overall impact of inflation on your bank's performance, growth and long term survival?

Detrimental Conducive irrelevant

15. If detrimental what strategies is your bank employing to profitably grow and survive

16. In your own words can you give any other comments, be it in terms of advice to monetary and fiscal authorities, the government and fellow bankers or suggestions as to what ought to be done to tame this inflation and ensure economic growth.

.....
.....

.....

...

second 2 draft

ORIGINALITY REPORT

17% SIMILARITY INDEX	12% INTERNET SOURCES	1% PUBLICATIONS	8% STUDENT PAPERS
--------------------------------	--------------------------------	---------------------------	-----------------------------

PRIMARY SOURCES

1	www.library.uz.ac.zw Internet Source	5%
2	Submitted to Midlands State University Student Paper	1%
3	liboasis.buse.ac.zw:8080 Internet Source	1%
4	Submitted to Asia e University Student Paper	1%
5	Submitted to Women's University Student Paper	1%
6	online-cig.ase.ro Internet Source	1%
7	www.clevelandfed.org Internet Source	1%
8	Submitted to American Intercontinental University Online Student Paper	<1%
9	Submitted to Zambia Centre for Accountancy Studies	<1%

Student Paper

10	John E. Marthinsen. "Demystifying Global Macroeconomics", Walter de Gruyter GmbH, 2020 Publication	<1%
11	Submitted to Intercollege Student Paper	<1%



