



THE EFFECT OF EXCHANGE RATE FLUCTUATIONS ON BANK PROFITABILITY IN ZIMBABWE

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Abstract : The economic well-being of any economy is based on the effective functioning of the financial sector, however the profitability of banks is based mainly upon their intermediation duty in the financial system, which exposes banks to various risks. In Zimbabwe, banks are exposed to exchange rate risks due to the continual weakening of the Zimbabwean currency. The general objective of this study was to determine the effects of exchange rate fluctuations on banks' profitability. The study sample included 13 commercial banks and 1 savings bank in Zimbabwe for the period 2016 to 2021. Panel data was analyzed using E-views package. The research established a significant negative relationship between exchange rates and banks profitability that is the depreciation of the Zimbabwean currency has a negative significant relationship with bank profitability. The study further concluded that deposit to assets ratio has a negative significant relationship with bank profitability. Economic growth represented by (GDP) had a positive significant relationship whilst inflation had a negative significant relationship with bank profitability. These results were consistent with literature. Implementation of exchange rate risk hedging policies is recommended for the central bank and banks. Banks are recommended to employ robust liquidity management techniques and good corporate governance because diseconomies of the scale were found to exist.

Keywords: *Exchange rate, Bank profitability and macro-economic factors.*

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I. INTRODUCTION

Exchange rates has always reflected underlying economic and political conditions. The previous global financial crisis of 2007-2008 resulted in the depreciation of currencies, closure of various global financial institutions and companies. Various authorities are concerned with the effects of Covid-19 pandemic and the Russian and Ukraine war on exchange rates and prices of commodities.

Since 2008, Zimbabwe has been exposed to exchange rates fluctuations mainly caused by the loss of confidence in the local currency by economic agents. The introduction of the multicurrency regime in 2009 stabilised the economy, however the central bank was stripped of its autonomy power to influence the economy through the monetary policy as well as seigniorage. In addition to that, the multi-currency regime was characterised by unavailability of change when economic agents were doing their day-to-day transactions since small denomination coins were scarce.

The reintroduction of the local currency in different phases from 2014 to 2018, destabilised the economy and caused exchange rate and inflationary pressures in the country. According to the grasham law, bad money drives out good money. The resultant scarcity of foreign currency lead to continued depreciation of the local currency. Jefferies (2020) argued that the shortage of forex at the official determined rate in formal financial institutions paved way for the black market which availed foreign currency at higher rates.

The continual weakening of the Zimbabwean dollar lead the government to introduce the Dutch auction system to stabilise exchange rates fluctuation (RBZ 2020) as all economic agents were mandated to trade using the prevailing auction exchange rate (SI 126 2021). However the central bank failed to avail foreign currency as per the auction system agreements, leading to its ineffectiveness.

Okika, Udeh and Okoye (2018) argued that profitability, price and allocation of resources are directly influenced by exchange rates and when exchange rates are volatile it makes business difficult as they need to make an informed decision. Many businesses in Zimbabwe failed and some are in financial distress because of the unstable currency, inflationary pressures and high interest rates.

1.1 Statement of the problem

Zimbabwean currency crisis has become an unending theme as the local currency continue to depreciate against other regional and international currencies. Gumbo, Njerekai, Murungu and Damabaza (2020) argued that exchange rate fluctuations in Zimbabwe has resulted in the deterioration of depositor confidence and thereby loss of deposit in financial institutions. The country experience hyperinflation in the period 2007-2009, adopted multicurrency regime during the period 2009-2016, reintroduced the

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local currency in 2014, dedollarised in 2018 and readopted the use of multicurrency regime in 2020. This research aimed at analysing the effects of all the economic phased to the profitability of banks.

1.2 Research objectives

- a) To determine the effect of exchange rates fluctuations on banks profitability.
- b) To determine other bank specific factors that affect bank profitability in Zimbabwe.
- c) To determine other macro-economic factors that affects bank profitability in Zimbabwe.

II. Literature Review

Sloman and Wride (2009) defined exchange rate as the value at which one currency can be exchanged for another in the forex market. The concept of exchange rates is hinged on the purchasing power parity theory, the international Fisher effect theory, the monetary approach to exchange rates, and interest rate parity theory. The theory comes in two forms namely absolute and relative purchasing power parity. The backbone of the theory is the law of one price which postulated that the price of the same basket of goods in one country should be equal to the price of the same basket in another country. According to Coakley, Flood, Fuertes, and Taylor (2005) absolute purchasing power theory states that purchasing power of a unit of local currency is just the same in a foreign economy after exchange. The theory states that the exchange rate between two currencies is in equilibrium when their domestic purchasing powers at that rate of exchange rate are equal. That is a basket of goods or services should cost the same in two countries once you take the exchange rate between the two countries into account.

2.1 Effects of exchange rates on bank profitability

Literature concurred that there is a negative relationship between exchange rate fluctuations and bank profitability however exchange rates mainly affect banks that transact internationally directly than those that do not transact globally (Comey and Togbenou, 2017). Christian et al (2018) investigated the effects of exchange rate volatility on firm profitability in Nigeria. Their study established that exchange rates possess a direct negative relationship with business profitability. In the same vein Manyok (2016) investigated the effects of exchange rates on commercial banks' performance in South Sudan and established a negative relationship between financial performance and exchange rates fluctuations. Therefore exchange rate fluctuations has a negative impact on both firms and financial institutions profitability.

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In addition to that Baba and Nasieku (2016), they carried out research on the effects of the exchange rate on the performance of commercial banks in Nigeria. Their findings implied that banks' profitability is significantly affected by exchange rates in an inverse relationship. However Kiganda (2014) study on the effects of exchange rates on the profitability of a commercial bank in Kenya established that exchange rates have a weak and insignificant positive effect on bank profitability. Kiganda (2014) can however be opposed because the sample study was a case study of one bank and used very few observations.

2.2 Bank-specific factors that affect bank profitability.

Bank-specific factors are factors that are inherent within a bank or internal factors that affect banks' profitability. These include interest rates, bank size, liquidity ratio, and corporate government. Moussa, Boubaker, and Naimi (2022) investigated determinants of bank profitability. Their research was based on 11 banks in Tunisia from 2000-to 2018, a multiple regression analysis which comprised total deposits to total assets, DTA, total credits to total deposits, operating expense/ total assets, and bank size, returned on assets (ROA), GDP economic growth, and inflation rate. The research concluded that bank size, operating cost, deposits, and liquidity significantly affect the return on assets of a bank. Bank size has a positive effect on banks' profitability, a 1% increase in the size of a bank will result in 0.0015%. Alexiou and Sofokis (2009) concur with Moussa (2022) after studying the determinants of banks profitability in Greek, they found out that bank size has a positive effect on banks' profitability. They argued that big banks can spread risk over a diversified portfolio of financial products. Madhi (2017) differs by factoring in the moral hazards of big banks as they rely on inter-bank and support from the Reserve bank, they then relax in their corporate governance and then affect profitability.

Combey and Toybenou (2017) agreed with Alexiou (2009) after studying banking performance and macro-economic variables in Togo, they concluded that bank size has a significant positive effect to return on assets. Hirindu and Kushani (2017) investigated factors that affect banks' profitability and the results concur with the former cited authors. Bank size was concluded to be significantly and positively related to banks' profitability conforming with economies of scale. The finds connect with the research in that bank profitability is measured using return on assets and also bank size affects positively banks profitability. Big banks enjoy

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economies of scale meaning their operation costs are relatively low as compared to small banks. This is so because big banks can diversify their products in the market because they have the capital to do so. In the case of bank runs, big banks can easily be funded by the reserve bank and they can use that to create overnight loans and boost their profitability.

Hirindu (2017) elucidated that deposits are also critical in determining the profitability of commercial banks in that deposits possess a positive significant relationship with banks' profitability. Baba (2016) and Alexiou and Sofokis (2009) concurred with Hindu (2017) justifying deposits to be the cheapest bank source of funds in other words deposits are the cheapest cost of production (source of funds) to commercial banks which then translates to high profits *ceteris paribus*. Moussa (2022) advocated the findings of the three arguing that a 1% increase in deposits will result in a 0.0213 increase in the profitability of the bank.

2.3 Macro-economic factors that affect banks' profitability.

Combey and Toybenou (2017) argued that gross domestic product positively affects bank profitability. GDP improves loan losses and interest income while reducing operating costs. It is evident that the profitability of banks increases during expansion times in business cycles, which then leads to firm loans and deposits, and finally banks' profitability will increase. In addition to that, an increase in GDP means an increase in disposable income for households, credit risk will decrease to consumer loans and savings/ deposits will increase which banks can use to generate income by advancing to the deficit side. However, Alexiou and Sofokis (2009) differ from Combey (2017) they researched banks' profitability determinants and they concluded that macro-economic variables are insignificant in determining banks' profitability. This then connects with the objective of this research in that it seeks to determine the effects of other macro-economic variables such as GDP on banks' profitability.

An increase in inflation also erodes the interest on principal to banks though it reduces default the truth and borrowers will be repaying less in real terms. In periods of high inflation banks or lenders usually suffer losses especially if they charge fixed interest rates and the inflation rate is higher than anticipated. Finally, bank profitability will be negatively affected by an increase in the inflation rate. Although some argue that if bank management is effective

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enough, they can efficiently predict inflation and charge interest rates based on the expected inflation, inflation will not affect bank profitability.

III. METHODOLOGY

The research was based on the quantitative research design. The study made use of this model:

$$ROA = \alpha + \beta EXC + \beta_1 BS + \beta_2 DTA + \beta_3 EG + \beta_4 INF + \beta_4 LTD + \epsilon$$

Where:

ROA = return on asset, α = return on asset while exchange rates are zero, it is a parameter estimated in the model, **EXC** = exchange rate at time t, **BS** = bank size, **DTA** = the ratio of total deposits to total assets, this ratio was used to measure liquidity of the bank., **LTD** = Loans to deposit ratio, **EG** = economic growth and **INF** = inflation rate, these two variables were used as macro-economic variables that affect bank profitability, β , β_1 , β_2 , β_3 and β_4 are regression coefficients and **E** = is a random error term or stochastic error term. Interviews were conducted among 10 bank managers to enhance the research findings of the model.

IV. DATA ANALYSIS

The study made use of hypothesis testing and regression model in analyzing data making use of E-views application. The was done on testing the effects of exchange rates on banks' profitability.

V. FINDINGS

5.1 The effect of exchange rate, bank specific factors and macroeconomic factors on bank profitability.

The following regressions analysis was used to determine the effect of exchange rate on bank profitability, the effect of bank specific factors and macro-economic factors on the profitability of banks.

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Table 1: Regression results

Variable	Coefficient	Std. Error	t-statistic	P-value
Bank size	-0.080072	0.037576	-2.130961	0.0370
Deposit to total assets	-0.264201	0.057680	-4.580455	0.0000
Economic growth	0.009599	0.005746	1.670621	0.0998
Exchange rate	-0.004373	0.001969	-2.221230	0.0299
Inflation	-0.000867	0.000344	-2.520655	0.0143
Loan to deposit	0.034001	0.010836	3.137866	0.0026
Constant	0.149839	0.041298	3.628263	0.0006

R-squared 0.507646

Source: secondary data

Adjusted R-squared 0.460755

F-statistic 10.82610

P Value (F-statistic) 0.000000

The above results lead to the specification of the regression model as:

$$\text{ROA} = 0.149839 - 0.080072\text{BZ} - 0.264201\text{DTA} + 0.009599\text{EG} - 0.004373\text{EXC} - 0.000867\text{INF} + 0.034001\text{LTD}$$

4.3.2 Interpretation of results

The above specified equation explains the profitability of banks using banks specific variables, macro-economic and exchange rates were of paramount importance in this research. Regression model stipulates that holding exchange rates, bank specific factors and macro-economic factors to zero return on assets or profitability of the bank will be 0.149839. The model R-squared was 0.507646 which concludes that the model explains 50.76% of the dependant variable bank profitability. According to Wooldridge (2012) F statistic value is a tool to test the hypothesis that all coefficient parameters are equal to zero. This means that F statistic value is the universal indicator of the model significance. Gujarati (2004) affirms the same postulating that regression coefficients are simultaneously zero. The economic principle about F statistic is that it must be greater than 5 for the whole model to be considered significant in explaining the regressand. The research F statistic value is 10.83 which portray the significance of the model in explaining banks profitability and the hypothesis that coefficients are all equal to zero is rejected.

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Exchange rates

The results established that there is a significant negative relationship between exchange rates and banks profitability. Exchange rates are statistically significant in explaining ROA (profitability), this is proved by the p-value (0.0299) which is less than 0.05 and t-statistic value of (-2.221230) which according to Gujarati (2003) depicts a statistically significant variable because the modulus of -2.221230 is greater than 2.000 the econometrically acceptable t-statistic to conclude the significance of the variable. Exchange rates have a negative statistically significant effect to banks 'profitability meaning that a single percentage change in exchange rates will lead to - 0.004373 fall in banks return on asset. The results concur with Combey and Togbenou (2017) findings that exchange rates have a negative relationship and significantly affects banks profitability which concludes the rejection of null hypothesis that exchange rates do not affect banks profitability. However, Kiganda (2014) exchange rates effect on banks profitability was one his research objective but he differs postulating that exchange rates insignificantly affects banks profitability but agreed on the existence of a negative relationship between the two.

Banks specific factors

The second objective of the research was to determine whether banks specific factors such as bank size and liquidity affects banks profitability. Two liquidity ratios deposit to total assets ratio, the loan to total deposits ratio and bank size in relation to overall market capitalization was used as banks specific variables. The results showed that there is a statistically significant strong inverse relationship between banks profitability and bank size. The notion is evidenced by the p-value which is less than 0.05 and t-statistic which also is above econometrically acceptable. According to the model, a single increase in bank size will lead to -0.080072 decline, ceteris paribus. This is in accord with Madhi (2017) that the bigger the banks exhibits low profits because they are protected by the government and hence there will be moral hazards knowing that any sign of bank run will be financed by the mother bank. Gumbo et al (2020) concluded that the bigger the bank is, the more it suffers liquidity challenges and that shows the decline in profits as the bank will not be able to issue new loans or settle obligations without incurring undesirable costs which reduces the profitability of the bank. However, Moussa (2022) postulated that there is a positive relationship between bank size and profitability but was in corroboration on the significances of banks size explaining banks ROA.

Deposit to asset ratio, DTA which explains the liquidity position of the bank. Banks main function is to create loan term loans from short-term savings therefore, higher deposits entails increase in banks production which is a function of banks profitability. Research findings depicts a strong negative relationship between deposits to asset ratio to banks profitability as portrayed by p-

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value of 0.0000, t statistic of -4.580455 and coefficient of -0.264201. This expresses that on a single change of DTA ceteris paribus, banks ROA will fall by -0.2642. However, the research outcome is contrary to other research findings in the literature. According to Kana (2017) higher DTA transforms to increase in banks profitability in the case of South African banks. Combey and Toybenou (2017) after carrying out research on the performance of banking sector consorted with Kana (2017) in that increase in deposits directly increase banks profitability but they were in corroboration with research on the significance of DTA in explaining banks profitability. The results concurred with Logat (2016) research conducted in Latin America, the conclusion was that DTA is negatively related to return on assets and statistically significant. The research findings are also justified in that South African economy is different to Zimbabwe. Zimbabwean bank's deposits are mainly short-term that is why the central bank (according 2021 and 2022 Monetary policy) is constantly increasing statutory reserve and interest of demand deposits and time deposits to encourage savings and induce long term deposits or liabilities and finally long term loans. Fugacious deposits cannot be used to issue out long-term or even short-term without exposing the bank to liquidity risk therefore, the higher deposits of this type will definitely transpose to decrease on ROA of banks.

Lastly, there is loans to deposits ratio, which depicts the percentage of deposits tied up in loans. The results communicated that there is significant positive relationship between LTD and ROA because the p-value is 0.0026 which is less than the econometric principle and its t-statistic value is also greater than 2 and 0.034001 is the coefficient meaning that for a single increase in LTD it will lead to 0.034 increase in banks ROA. However, this should not be the case because according Gumbo et al (2020) the higher ratio depicts exposure of the bank to liquidity challenges. Alexiou and Sofokis (2009) corresponds arguing that the liquidity is significantly negative related to banks profitability because the higher the ratio depicts illiquid of the bank. The results may be caused by the income hungry of the banks and the real values of deposits has been eroded by weakening ZWL and hence the bank's profitability increase because the cost of funds were dampened by inflation the past years.

Macro-economic factors

The last objective of the research was to investigate the effect of other macroeconomic variables of which in this research and economic growth and inflation was used to represents macroeconomic variables. The findings proved that economic growth insignificantly affects banks profitability positively because its p value of 0.0998 which greater than 0.05 and alternatively its t-statistic value of 1.670621 which less than 2 the acceptable criterion. The results are in tandem with Sufian and Kamarudin (2012) findings on that as the economy grows economic agents rate of loan defaulting will

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be low and companies will be borrowing causing the profitability of the banks to increase and hence the positive relationship. Petria, Capraru and Ihnatov (2013) concluded the same positing that in the period of economic growth investors' confidence mount up thereby creating a favourable environment to advance loans and deposits which either way one take it, affects banks profitability positively. Shuremo (2016) differs with the research findings that economic is statistically insignificantly in explaining banks profitability after research on Ethiopia's commercial banks. In Zimbabwe, economic agents even if economy grows, they will choose to bank under mattress because of low trust in the local banks which is attributed to dynamic policies of the RBZ narrowly on exchange rates determination.

Inflation from the research was concluded to have a strong negative relationship with banks profitability. The p value of 0.0143 and -2.520655 t statistic value are images of significance of inflation on ROA with the coefficient of -0.000867. Portraying that for every single increase in inflation rate will lead to 0.000867 change on banks ROA, ceteris paribus. The results consisted with Sufian and Kamarudin (2012) findings in Bangladesh who concluded that there is an inverse relationship between inflation and ROA.

VI. RECOMMENDATION

After a thorough research on the effects of exchange rates fluctuations on banks profitability, the researcher proposes the following recommendations to the stakeholder of this study. The study recommends the need to manage the currency crisis in the country urgently as the fluctuations has a negative impact on bank profitability. Financial institutions should hedge against foreign exchange rate risk as poor management has potential of causing bank distress. The central bank should continue to devise strategies that can improve bank liquidity and exchange rates in the country. Banks are recommended to employ robust liquidity management techniques and good corporate governance because diseconomies of the scale were found to exist.

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REFERENCE LIST

1. Alagidede and Ibrahim (2016) On the causes and effects of exchange rate volatility on economic growth: Ghana, University of the Witwatersrand.
2. Alexiou, C. and Sofokis, V. (2009) Determinants of bank profitability: Evidence from the Greek banking sector, *Journal of Economic Annals*, Vol. LIV (182), pp 96-118.
3. Alshatti, A, S. (2016) Determinants of bank profitability-case of Jordan, *Investment management and financial innovations*, 13(1), pp 84-91.
4. Altayligil, Y, B. and Çetrez, M. (2020) Macroeconomic, institutional and financial determinants of current account balances: a panel data assessment, *Journal of economic structures*, available at doi.org. (accessed 03.03.2022)
5. Artus. J.R and Young (nd) Fixed and flexible exchange rates: A renewable debate, *International Monetary Fund*, pp654-698.
6. Baba, S. and Nasieku, T. (2016) Effect of macroeconomic factors on financial performance of commercial banks in Nigeria, *International journal of social science and information technology*, 2 (IX), pp 1278-1299.
7. Bamu. S. (2019) The effects of exchange rate fluctuations on Uganda's export performance, Makerere University available at <https://hdl.handle.net/10570/7604> (accessed 03.03.2022).
8. Baris, Y., A. and Çetrez, M. (2020) Macroeconomic, institutional and financial determinants of current account balances: a panel data assessment, *Journal of economic structure*; 9(49), pp 1-23.
9. Beardshaw. J., Brewster. D., Cormack. P. and Ross. A. (2001) *Economics student guide* 5th edition, Prentice hall, Harlow.
10. Bouraoui. T. and Hammami. H. (2017) Does political instability affect exchange rates in Arab Spring countries? *Journal of applied economics* vol.49(55).
11. Brooks, C. (2008) *Introductory econometrics for finance*, Cambridge University Press, New York.
12. Chen, W., Xiang, G., Liu, Y., Wang, K (2012) Credit risk Evaluation by hybrid data mining technique, *Systems Engineering Procedia* 3 (2012), pp194 – 200.
13. Chinjova, F. and Zinhumwe, R. (2019) Causes of Liquidity Crisis in Zimbabwe after the Adoption of the Multicurrency in 2009, *International Journal of Research and Innovation in Social Science (IJRISS)* |Volume III, Issue X, pp150-153.
14. Coakley, J., Flood, R, P., Fuertes, A, M. and Taylor, M, P. (2005) Purchasing power parity and the theory of general relativity: the first tests Purchasing power parity and the theory of general relativity: the first tests; *Journal of International Money and Finance*, 24 (2005), pp 293–316.

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15. Combey, A. and Toybenou, A. (2017) The Bank Sector Performance and Macroeconomics Environment: Empirical Evidence in Togo, *International Journal of Economics and Finance*; Vol. 9, No. 2; pp 180-188.
16. Das, D. K. (2016) Determinants of current account imbalance in the global economy: a dynamic panel analysis, *Journal of economic structures*; 5(8), pp 1-24.
17. Elhussein, N, H, A and Osman, O, E, E (2019) Exchange Rate fluctuations and Financial Performance of Banks: Evidence from Sudan, *International Journal of Economics and Finance*; 11(12) pp 15-27.
18. Farhi E, and Gabaix, X. (2016) Rare disasters and exchange rates, *The Quarterly Journal of Economics*; 131 (1), pp 1-52.
19. Funso, K , T and Lawal, N , A (2020) The Exchange Rate Risk and Financial Sector Performance: Evidence from Nigeria, *Journal of Economics and Behavioral Studies*; 12(1), pp 1-6.
20. Griffiths, A. and Wall, S (2012) *Applied economics*, 12th edition, Pearson Education Limited, Harlow.
21. Gujarati, N, D. (2003) *Basic econometrics* 4th edition, McGraw Hill, United states military academy, West point.
22. Gujarati, N, D. (2004) *Basic econometrics*, McGraw Hill, New York.
23. Gujarati, N, D. and Porter, C, D. (2010) *Essentials of econometrics*, McGraw Hill, Boston.
24. Gumbo, L. Njerekai, C. Murungu, C. and Damabaza, J. (2020) *Bank Liquidity in Distressed Macro-Economic Conditions: The Case of Zimbabwe*, *Global Journal of Management and Business Research: C Finance*; Vol 50, No.5.
25. He, L, T, Fayman, A, and Casey, K, M (2014) Bank Profitability: The Impact of Foreign Currency Fluctuations, *Journal of Applied Business and Economics*; vol. 16(2), pp 98-104.
26. Kawshala, H. and Panditharathna, K. (2017) The Factors Effecting on Bank Profitability, *International Journal of Scientific and Research Publications*; Volume 7, Issue 2, pp 212-216.
27. Ison, S. and Wall, S. (2007) *Economics* 4th edition, Prentice hall.
28. Jefferis. K. (2020) Zimbabwe currency curse and the economic malaise, Institute for security studies available at
29. Jongrim Ha, M., Stocker, M and Yilmazkuday, H (2019) Inflation and Exchange Rate Pass-Through, Policy Research Working Paper 8780, World bank group.
30. Kalu. K.U. and Mike. A. (2020) Exchange Rates fluctuations and international trade in a Mono-product Economy: Nigeria's experience 1986-2018, *South Asian Journal of social science and economics*, volume 7(2), pp 21-48.

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31. Kana, K, M. (2017) Determinants of bank profitability: an empirical study of South African banks, UNIVERSITY OF SOUTH AFRICA.
32. Kandongwe, S (2015) THE ROOT CAUSES OF BANK FAILURES IN ZIMBABWE SINCE THE YEAR 2008 TO 2015, available at ssrn.com (accessed 10.03.2022).
33. Keshtgar, N., Pahlavani, M. and Mirjalili, S , H (2020) The Impact of Exchange Rate volatility on Banking Performance (case of Iran), *International Journal of Business and Development Studies*; Vol. 12, No. 1, pp 39-56.
34. Kiganda, E, O. (2014) Effect of Macroeconomic Factors on Commercial Banks Profitability in Kenya: Case of Equity Bank Limited, *Journal of Economics and Sustainable Development*; 5(2), pp 46-56.
35. Lagat, C, C and Nyandema, D , M. (2016) The influence of foreign exchange rate fluctuations on the financial performance of commercial banks listed at the Nairobi securities exchange, *British Journal of Marketing Studies*; Vol.4, No.3, pp.1-11.
36. MacDONALD. R. and Swagel. P. (n.d) Business cycle influences on exchange rates: survey and evidence, chapter five.
37. Mahonye, N. and Mandishara, L. (2015) Currency reform, trade and economic performance in Zimbabwe. *Journal of Banks and Bank Systems*, 10(3), 87-97.
38. Mahmud, K., Mallik, A., Imtiaz, M. and Tabassum, N (2016) The Bank-Specific Factors Affecting the Profitability of Commercial Banks in Bangladesh: A Panel Data Analysis, *International Journal of Managerial Studies and Research (IJMSR)*; 4 (7), pp 67-74.
39. Makena. P. (2017) RBZ, Determinants of Inflation in a Dollarized Economy: The Case of Zimbabwe.
40. McNown. R. and Wallance. M.S (1989) international price levels, Purchasing Power Parity and co-integration: test of 4 high inflation economies, *journal of international money and finance* volume 8, pp 533-545.
41. Morina.F, Hysa. E, Panait. M, and Voica. M.C. (2020) The Effect of Exchange Rate Volatility on Economic Growth: Case of the CEE Countries, *Journal of risk management*, 13 (177), pp 1-13.
42. Moussa, M, A, B. Boubaker, A. and Naimi, A. (2022) The determinants of bank profitability: case of Tanzania, *International journal of business and management review*, 10(1), pp 44-56.
43. Munyawiri. E. (2014) ZAR/USD exchange rates and effects on inflation, Midlands State University.
44. Nor, M, I. Masorn, T, A. and Alabdullah, T, T, Y. (2020) Macroeconomic fundamentals and the exchange rate volatility: empirical evidence from Somalia, *Sage journal*; pp 1-12

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45. Offiong, A., Hodo B. Riman, H. B. and Akpan, E. (2016) Foreign exchange fluctuations and commercial banks profitability in Nigeria, *Research Journal of Finance and Accounting*; 7 (18), pp 121-126.
46. Okika Christian E.M., Udeh, Francis N.P, Okoye Greg. O (2018) Effect of Exchange Rate Fluctuation on Firm Profitability: Evidence from Selected Quoted Conglomerates in Nigeria, available at <http://dx.doi.org/10.6007/IJARBS/v8-i12/5154> (accessed on 25.01.22).
47. Omofomwan. S. (2014) Exchange rate risk and impact on foreign trade, postgraduate thesis, University of East London.
48. Opolot. J. and Okello. A. J (2020) Exchange rate determination in low income commodity exporting countries: does the PPP hold in Uganda, Bank of Uganda, working paper no..15/2020.
49. Ouma. D. O. and Kihui. E. (2018) Exchange rate fluctuations and stock performance in Nairobi securities exchange, *Journal of emerging issues in economics, finance and banking (JEIEFB)* vol. 7(1)
50. RBZ (2020) Introduction of a foreign exchange auction trading system, (accessed on 14/02/22)
51. RBZ (2015) Assessing the impact of the real effective exchange rate on competitiveness in Zimbabwe, Economic research department, working paper series no1-2015.
52. Riley. G. (2022) managed floating exchange rates available at www.tutor2u.net (accessed 14/02/22).
53. Sarac. T. B. and Karagoz. K. (2015) Impact of short-term interest rate on exchange Rate: case of Turkey, *Journal of economics and Finance*.
54. Shuremo, G, A. (2016) Determinants of banks profitability: Evidence from banking industry in Ethiopia, *International journal of Economics, commerce and management*, 4(2), pp 442-463.
55. Slavin, S, L. (2009) *Macroeconomics* 9th edition, McGraw Hill, New York.
56. Sloman and Wride (2009) *ECONOMICS* 7th edtn, Prentice Hall
57. Teall, J, L (2019) *Financial trading and investing* 2nd edition
58. Tomanová, L. (2014) Exchange Rate Exposure and its Determinants: Evidence on Hungarian Firms, *European Financial and Accounting Journal*; vol. 9, no. 2, pp. 47-65.
59. The Bank of Canada (2020) Letting the currency float, available at www.bankofcanada.ca (accessed on 14/02/22).
60. The global times (2021) Two-way fluctuation of Chinese yuan to become new norm central bank, available at www.globaltimes.cn published on 23 May (accessed on 14/02/22).
61. Williams, C. (2007) Research Methods-Grand Canyon University, *Journal of business and economic research*, 5(3) March, pp 65-72.