

# Effect of Exchange Rate Fluctuation on Financial Performance of Forex Bureaus in Rwanda. Case Study of XYZ Forex Bureau

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## ABSTRACT

The main objective of this study was to assess the effect of exchange rate fluctuation on financial performance of forex bureaus in Rwanda. The study was carried out at XYZ Forex Bureau. Both descriptive and regression research designs were used during the study. Apart from financial statement analysis, the researcher used the universal sampling technique on which 23 employees were selected and answered on a given questionnaire. The data collected were analyzed using SPSS version 23. Based on the result shown from the test of hypotheses, it was found a positive and significant effect of exchange rate fluctuations on the financial performance of XYZ Forex Bureau. Thus, the researcher recommends the Rwandese policy makers to implement policies aiming at rising the Rwandan currency and effectively monitor high exchange rate fluctuations which lead to the poor performance of forex bureaus.

**Key words:** exchange rate fluctuation, forex bureau financial performance.

## INTRODUCTION

The all-time highs and all-time lows of currencies seem to occur more frequently now than ever before. Exchange rates are continuously changing, which can be frustrating for international enterprises and regular visitors worldwide (Wamukhoma, 2014). But why do currency prices change so frequently? Supply and demand are the comparatively straightforward solution. Supply and demand are “the amount of a commodity, product, or service that is accessible and the desire of consumers for it, seen as factors regulating its price”. According to Hossin (2015), the price of something is determined by the amount of supply vs the demand for it (Hossin, 2015).

All necessities have recently realized an increase in price in Rwanda. Prices have risen for nearly everything from manufactured goods (like sugar and fuel) to agricultural and food products. Given that the factors of supply and demand on the foreign exchange market continue to affect the level of the Rwandan francs, the cause may be found in the exchange rates (Kabayiza, 2019). According to Kabayiza’s research (2019), greater currency rate volatility in the short term has led to a decline in the Rwandan economy. Long-term increases in the real exchange rate led to an increase in the price of agriculture. The Rwandese exports were greatly and negatively impacted by the fluctuating currency rates.

Because flexible exchange rates are used to trade most currencies, their prices fluctuate in response to supply and demand on the foreign exchange market. A currency’s value will increase if demand for it increases or supply declines (Anifowose, Ismail & Sukor, 2018). Its price will be lowered by a decline in demand or an increase in supply. Money supply and demand are influenced by several interconnected factors, such as monetary policy, inflation rates, and the state of the political and economic climate (Anifowose et al. 2018).

As it influences their financial intermediation process, the fluctuation of foreign exchange prices is a potentially fascinating aspect that determines the amount of profitability of different operators in the exchange sector. International markets play an important role in the current difficult era, and international trade involves different currencies (Kinyuma, 2013). Foreign exchange rates are useful because no nation is self-sufficient; instead, they all conduct business with one another. According to Adetayo (2013), a country's trade balance is significantly influenced by changes in the currency rate. In addition, Bilal, and Shahbaz (2019) said that supply and demand play a role in currency rates just like they do with other commodities. Changes in fiscal policy explain currency supply, but a variety of factors, including inflation and interest rates, impact currency demand (Anifowose et al. 2018).

The major function of forex bureaus is to act as a middleman between the supply and demand sides of the foreign currency market (Mwirigi., 2014). According to Wekesa (2012), changes in exchange rates frequently result in sizable gains or losses. If a company does not take steps to mitigate this risk, it may experience financial gains or losses because of transactions of foreign activities.

The rate at which one currency is exchanged for another fluctuates often in the environment where forex bureaus operate. When fluctuations in exchange rates favor forex bureaus, these currency exchanges at shifting rates may present prospects for arbitration. Contrarily, it is thought that exchange rate fluctuations enhance the risks that these organizations face, and consequently, incidental costs that emerge from those risks have an impact on financial performance (Guileidi, 2020). According to Guileidi (2020), there was a bad link between financial success and changes in the foreign exchange rate. More than \$5 trillion is exchanged daily on the FX market, making it the most active market in the world compared to global equities (Bilal & Shahbaz, 2019). Despite such massive trade volumes, currencies typically don't make headlines. However, there are instances when currency movements are substantial and have an international impact (Hossin, 2015). Thus, the need felt by the researcher on assessing the issue of fluctuations of exchange rates and its effect on financial performance of forex bureaus, in the Rwandan context.

This research supported the theory of International Fisher Effect established by Irving Fisher in The Theory of Interest 1930. The theory uses market interest rates (rather than inflation rates) to explain why exchange rates change over time. The International Fisher Effect states that fluctuations in interest rates cancel out fluctuations in exchange rates. Real interest rates in all countries are equal, according to the Fisher theory, since there may be opportunities for financial market arbitrage, which often takes the form of capital flows. In this theory, equal real interest rates imply that the country with the higher rate should also experience higher inflation, which over time reduces the real value of the country's currency (Lyke & Odhiambo, 2017).

The relationship between relative interest rates and currency exchange rates is explained by the interest rate theory of exchange rate expectations. Differences in nominal interest rates between two countries often correspond to changes in the exchange rate. Interest rates tend to be low in currencies that are appreciating and high in currencies that are depreciating if the global Fisher effect is true, which would balance off expected currency gains and losses (Khan, 2015).

The International Fisher Effect (IFE) theory states that foreign currencies with relatively high nominal interest rates frequently depreciate because these rates reflect expected inflation rates (Lyke & Odhiambo, 2017). Can future currency movements be predicted using the difference in interest rates? There is now contradictory evidence, much as the PPP theory. Despite notable short-term anomalies, there appears to be a long-term connection between interest rate differentials and potential future changes in the spot exchange rate (Hill, 2004). The International Fisher Effect is notoriously bad at forecasting short-term variations in spot currency values. One of Fisher's most significant contributions to the field of economics is his explanation of the relationship between inflation and the real and nominal interest rates. This relationship is known as the Fisher Effect which predicts that an increase in the growth rate of the money supply will result

in higher inflation, higher nominal interest rates, and higher inflation rates.

The idea is that price indices might be used to contrast the exact costs of comparable commodities across nations. The major challenge with this notion is determining how to evaluate the Purchasing Power Parity produced from price indexes given that different countries use different items to define their price level (Reid and Joshua, 2004).

The theory of choice for best expressing the goals of the research investigation is the set of research questions. An answer to this particular management query is required. There could be multiple questions or just one (Saunders, 2012). The research used the following research questions to assess all the study's components:

1. What is the effect of exchange rate fluctuation (Inflation rate and Monetary Policy) on the Return on equity of Forex bureaus in Rwanda?
2. What is the effect of exchange rate fluctuation (Inflation rate and Monetary Policy) on the Return on assets of Forex bureaus in Rwanda?
3. What is the effect of exchange rate fluctuation (Inflation rate and Monetary Policy) on the Net profit margin of forex bureaus in Rwanda?

## METHODOLOGY

This study used both descriptive and regression research design. In addition, universal sampling technique was used, and 5 Likert scale administered questionnaires were distributed to all 23 employees of XYZ forex bureaus located in Kigali city – RWANDA (in Central Africa). The confidentiality of any information that would compromise the respondents' privacy was the researcher's responsibility. The data collected were analyzed using SPSS version 23. For data collection, the researcher accessed a wide range of research tools. The study uses both primary and secondary data necessary to achieve its objectives.

### Model Specification.

X = Independent Variable (Exchange rate fluctuations)

Y = Dependent variables (Financial performance)

$Y = f(x)$

Where  $f(x) = (x_1 = \text{inflation rate (IFR)}, x_2 = \text{Monetary policy (MP)})$ ;

while the  $f(y) = (y_1 = \text{Return on equity (ROE)}, y_2 = \text{Return on Assets (ROA)}, y_3 = \text{Net Profit Margin (NPM)})$

$ROE = f(\text{IFR}, \text{MP})$  f1

$ROA = f(\text{IFR}, \text{MP})$  f2

$NPM = f(\text{IFR}, \text{MP})$  f3

Based on these functions the following multiple regression models were established, (where  $\epsilon =$  error term):

$ROE = \beta_0 + \beta_1 \text{IFR} + \beta_2 \text{MP} + \epsilon$ , Model 1

$ROA = \beta_0 + \beta_1 \text{IFR} + \beta_2 \text{MP} + \epsilon$  Model 2

$$NPM = \beta_0 + \beta_1 IFR + \beta_2 MP + \varepsilon \text{ Model 3}$$

## RESULTS

In this study, the respondents were asked to give their opinion on Inflation rate as factor of exchange rates fluctuations, and the results are shown below:

**Table 1: Perceptions of Respondents on Inflation rate**

Statements on Inflation rate	Mean	Comment	CV	Comment
We witness a high purchasing power on the exchange market	4.45	Strong	0.12	Homogeneity
We witness a high foreign capital attraction in Rwanda	4.32	Strong	0.11	Homogeneity
There is a rising of the Rwandan currency value	2.38	Tend to weak	0.11	Homogeneity
Overall mean	3.72	Tend to Strong		

As is shown in table 1 three statements were considered and the results are provided. Basing to the last statement, respondents disagreed with the impression that the value of the Rwandan currency is rising, as indicated by the mean of 2.38 (tend to weak) and the CV of 0.11 for the last statement (homogeneous) indicating that responders share a comparable comprehension of the highlighted statements. And this gets supported by the observed exchange rate of Rwandese Francs comparing to valuable foreign currencies such as dollars, etc.

**Table 2: Perceptions of Respondents on Monetary policy**

Statements on Monetary policy	Mean	Comment	CV	Comment
The National Bank of Rwanda accommodates exchange market pressure	4.42	Strong	0.13	Homogeneity
Exchange rate always affect the monetary policy	4.25	Strong	0.13	Homogeneity
Special attention is made to exchange rates and the value of the domestic currency	3.38	Tend to Strong	0.12	Homogeneity
Overall mean	4.02	Strong		

Source: primary data (2022)

Table 2 showed how respondents felt about monetary policy. Three factors were considered while evaluating monetary policy, and the results are shown in Table 2. The statement, “The National Bank of Rwanda accommodates exchange market pressure which was supported by a mean of 4.42 and a CV of 0.13, indicating that most respondents strongly agreed with the statement and shared its interpretation.

The respondents are also inclined to agree that special consideration is given to exchange rates and the value of the home currency. This is shown by the tend to strong mean of 3.38 and the CV of 0.12 homogeneity, which shows that they expressed similar opinions.

**Table 3: Return on equity (Net income/ Total equity) \*100**

Ratio	2020 RWF ‘000	2021 RWF ‘000
Net profit	92,860	121,283

Total Equity	997,555	982,672
ROE in %	9.31	12.34

Source: XYZ, financial statements 2020-2021

The Return Equity in table 3 above is 9.31 percent in 2020, and 12.34 percent in 2021. As is known, the ROE is a metric for management’s capacity to make a profit from the equity at its disposal. Tugas (2012) asserts that ROEs over 5% are typically seen favorably by financial institutions. Accordingly, XYZ Forex Bureau performs well specifically during the year 2021.

**Return on Assets (ROA)**

Profitability, which is a means to gauge a company’s financial performance, is measured by ROA. Simply said, profitability is the ability to turn a profit. A profit is the amount of money that remains after all expenditures and expenses associated with obtaining the income have been paid. The table below presents the computed ROA during the period from 31<sup>st</sup> December 2020 and 31st December 2021 as drawn from the financial statement of XYZ Forex Bureau (2020-2021).

**Table 4: Return on assets (Net profit/ Total assets) \*100.**

Ratio	2020 RWF ‘000	2021 RWF ‘000
Net profit	92,860	121,283
Assets	1,090,999	1,273,581
ROA in %	8.51	9.52

Source: XYZ, financial statements 2020-2021

A Return on Assets of 8.51 percent in 2020, and 9.52 percent in 2021 are shown in Table 4. The table shows that, despite the 2020 financial crisis, XYZ’s return on assets has been improving from 2020 to 2021. This suggests that a larger portion of the firm’s overall earnings is coming from its assets.

Net profit margin was computed to measure XYZ forex efficiency of operation as the Net profit margin reflects the relationship between prices, volume, and costs. The table below represents their views:

**Table 5: Net profit margin (Net profit/ Revenues) \*100**

Ratio	2020 RWF ‘000	2021 RWF ‘000
Net profit	92,860	121,283
Revenues	3,734,580	3,409,150
NPM in %	2.49	3.56

Source: XYZ, financial statements 2020-2021

In the table above shows that the Net Profit Margin ratio of XYZ forex bureau was 2.49% in 2020, and 3.56% in 2021. This indicates that the profitability has increased from 2020 to 2021. The limitation of this financial analysis is considered as we don’t have financial statements for previous years before the financial crisis due to the Covid 19, which would allow us to analyze the financial performance of XYZ Forex bureau before the pandemic.

**Table 6: Coefficients between Exchange rates fluctuations and ROA**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
2 (Constant)	18.07	2.533		7.13	0
IR	0.343	0.112	0.224	3.05	0
MP	0.512	0.118	0.32	4.32	0

1. Dependent Variable: Return on assets.

Table 6 findings show that the inflation rate (IR) has a negative impact on the return on equity for foreign exchange bureaus (1=-.0158; t= -.089, sig. =.930). According to this, a 1% change in the inflation rate results in a -.0158% decrease in the return on equity for forex brokers. According to Table 6 (2=.647; t= 3.518, sig. =.002), monetary policy (MP) significantly influences the return on equity in forex bureaus. This shows that a change in monetary policy of 1% results in an increase in return on equity for forex brokers of 0.647%.

**Table 7: Coefficients Between Exchange rates fluctuations and ROE**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.744	5.738		0.304	0.8
IR	-0.03	0.291	-0.0158	-0.09	0.93
MP	0.669	0.19	0.647	3.518	0

1. Dependent Variable: Return on equity.

Table 7 findings show that the inflation rate has a favorable impact on the return on assets in foreign exchange bureaus (1=.224; t= 3.049, sig. =.003). This shows that a 1% change in the inflation rate causes a return on assets in forex bureaus to increase by 22.4%. According to Table 7 (2=.320; t= 4.323, sig. =.000), monetary policy has a favorable and significant impact on the return on assets in forex bureaus. According to this, a 1% change in monetary policy results in a 32% increase in Return on Assets in Forex bureaus.

**Table 8: Coefficients between Exchange rates fluctuations and NPM**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
3 (Constant)	3.4	5.19		0.66	0.5
IR	0.28	0.263	0.205	1.08	0.29
MP	0.36	0.172	0.434	2.07	0.05

1. Dependent Variable: Net profit margin

According to table 8 findings, the inflation rate contributes positively to the net profit margin of foreign exchange bureaus (1=.205; t= 1.077, sig. =.291). According to this, a 1% change in the inflation rate causes the net profit margin at forex bureaus to increase by 20.5%.

According to Table 8 (2=.434; t= 2.067, sig. =.048), monetary policy significantly affects the net profit

margin in forex bureaus. This shows that for Forex bureaus, a 1% change in monetary policy results in a net profit margin of 43.4%.

## DISCUSSION

This research conducted at XYZ Ltd. intended to evaluate exchange rate fluctuation and financial performance in forex bureaus in Rwanda. Regression analysis by SPSS 23 version was utilized in the study's survey research design to examine the information gathered through a questionnaire. 23 employees of the cited Forex bureaus made up the study's entire population. 23 respondents provided information that served as the basis for analysis, and subsequent analysis and interpretation concentrated on the information gleaned from the targeted respondents' survey responses.

Model 1 shows that the coefficient of determination (R square) was 0.343 and the adjusted coefficient of determination (Adjusted R square) was 0.270. This implies that the predictors of exchange rates fluctuations contribute 0.270% on the Return on equity in Forex bureaus. The F-test is 4.704 and is significant at .009, which implies that exchange rates fluctuations indicators have a causal contribution to the Return on equity in Forex bureaus. Model 2 +shows that the coefficient of determination (R square) was 0.047 and the adjusted coefficient of determination (Adjusted R square) was 0.137. This implies that the predictors of exchange rates fluctuations contribute 0.137% on the Return on assets in Forex bureaus. The F-test is 9.607 and is significant at .000 which implies that exchange rates fluctuations indicators have a causal contribution to the Return on assets in Forex bureaus. Model 3 shows that the coefficient of determination (R square) was 0.143 and the adjusted coefficient of determination (Adjusted R square) was 0.480. This implies that the predictors of exchange rates fluctuations contribute 48% to the Net profit margin in Forex bureaus. The F-test is 1.499 and is significant at .003 which implies that exchange rates fluctuations indicators have a causal contribution to the Net profit margin in Forex bureaus. Based on the result showed from the test of hypotheses, the conclusion was taken that there is positive and significant effect of exchange rate fluctuations on the financial performance in forex bureaus in Rwanda and all null hypotheses were rejected at all levels of significance as shown in ANOVA tests. The researcher recommends the policy maker to implement policies aiming at rising the Rwandan currency, and the forex bureaus to utilize effective assets to improve its ROA and NPM.

The analysis of inflation rate with an overall mean of 3.72 (table 1) and analysis of monetary policy with an overall mean of 4.02 demonstrated that the employees of forex bureaus tended to strongly confirm that exchange rate changes contribute to the financial performance in forex bureaus in Rwanda. Even though exchange rate variations have a significant impact on the financial success of forex bureaus, the researcher has identified some flaws and recommends concerned decision-makers to undertake policies aiming at increasing the Rwandan currency through tourism, local savings, and foreign investment.

Researcher advises Forex bureaus to offer new assets that could boost their ROA and bring in higher returns. To maximize their advantages and benefits, the researcher advises Rwandese Forex bureaus to manage their exchange rates as possible as they can; however, the researcher speculates that the global pandemic's consequences could also be to blame for the weak Return on Assets and Net Profit Margin.

The Forex bureaus that was the subject of the study was treated as a single entity. The researcher suggests doing a comparative study to examine the subject in several currency bureaus.

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