
EFFECT OF MACROECONOMIC DETERMINANTS ON FINANCIAL PERFORMANCE OF AIRBUS COMPANY IN UNITED KINGDOM

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Abstract

This study ascertained the effect of macroeconomic on financial performance of Airbus companies in United Kingdom. Specifically, the study ascertained the effect of; interest rate and inflation rate on financial performance of Airbus companies in United Kingdom. Ex Post Facto and time series data were adopted for the study. Data were extracted from the International Monetary Fund, and the annual financial reports of the Airbus Company in United Kingdom (UK) from 1999 to 2022. The study employed multiple regression analysis to test the two formulated hypotheses. The study found that interest rates have a significant negative effect on the financial performance of Airbus companies in United Kingdom; while inflation has a positive and insignificant effect on the financial performance of Airbus companies in United Kingdom. The study thus recommended that interest has a negative effect on the economic results of Airbus companies in the UK; the government has been advised to control interest rates through macroeconomic regulators depending on fluctuations in inflation levels, which will significantly contribute to the ability of corporate firms to provide financial intermediation services efficiently and sustainably.

Keywords: Macroeconomic, Interest rate, Inflation rate and Return on assets

1.0 INTRODUCTION

A business is an organization that combines and organizes resources to produce goods and services to sell in the market to its customers for profit. The ultimate goal of a company is to maximize its value and increase profits. Better financial performance is the way to satisfy your investors. It tells about the trend of the company, which is either improving or decreasing. Financial performance is evaluated based on profitability, maximization of company size and market value, employee satisfaction, customer satisfaction, environmental protection and social performance (Haider, et al, 2018).

The relationship between organizational performance and macroeconomic factors is a topic that has attracted great interest among many researchers and other stakeholders (Ally, 2022). Sharma and Singh (2011) explain that macroeconomic factors such as interest rate, inflation, exchange rate, gross domestic product, market risk and money supply are the most influential macroeconomic factors. According to Kipichirchir (2011), globalization and the development of technology have greatly influenced the way of working in the business environment. This has led to organizations and their management constantly evaluating the macroeconomic factors affecting their operations. With the increase in demand and supply of quality goods and services, international trade has grown, including commercial banks to meet the growing demand for quality financial services (Ally, 2022). Exchange rates, interest rates and inflation must be taken into account when making investment decisions. Commercial banks are interested and conduct analyzes to find out the impact of the smallest changes in these variables on their business (Vines, 2017). Exchange rates, inflation and interest rates deserve special attention in developing countries, because small increases in interest rates are very sensitive and controversial, due to the need for structural adjustments and changes necessary to remove economic uncertainties in the system (Idaka, Ugwoke, Ajuh and Edith, 2021). Countries around the world try to maintain a good economic policy, because the manufacturing sector is very key, which makes economic development a developing economy, because the manufacturing industry has a positive effect on economic activity both in terms of job creation and the added value of the gross domestic product and export.

This macro economy, whether negatively or otherwise, has influenced most manufacturing companies in the UK and around the world to change their policies. Airbus decided to delay the delivery of its flagship Airbus A380, reducing the production quantity from 20 to 9 in 2007 to face the financial crisis. The company is facing a dynamic increase in costs and a decrease in expected profits, which would require a new large-scale investment program. Airbus must increasingly seek to open financial markets for long-term investments instead of government-guaranteed loans. Program partners must assume high risks and rewards for new programs and exert pressure on raw material suppliers. Many previous researches prove that macroeconomic factor have an impact on company's financial performance. In existing studies, the effects of macroeconomic factors were mainly analyzed for the banking system, stock market, and profitability of companies. However, majority of the studies did not look at the effect of macroeconomic variables on specific industry and also most of these studies use stock returns instead of absolute accounting variables to measure performance. This work attempts to evaluate the macroeconomics variables to determine the effect on financial performance of Airbus Company in United Kingdom. Specifically, the study intend to:

1. *Ascertain the effect of Interest rate on financial performance of Airbus companies in United Kingdom.*
2. *Determine the effect of Inflation rate on financial performance of Airbus companies in United Kingdom.*

2.0 REVIEW OF RELATED LITERATURE

2.1 Macroeconomic

The word "macroeconomics" comes from the Greek prefix macro, meaning "large" and economy, and is the branch of economics that deals with the functioning, structure, behavior and decision-making of the economy as a whole (Sullivan and Sheffrin, 2003). The macro environment examines the forces surrounding a company that may affect its operations (Davis and Powell, 2012). The Institute of Chartered Accountants (ICAN) considered that it can be thought of as a set of factors or conditions that are external to the company but can affect the operations of the company. Macroeconomics is still a developing science, but the goals of macroeconomic policy have been globally consistent. These include price stability, exchange rate stability and full employment, balance of payments, economic growth and development. Although these policies are very important, they cannot be implemented simultaneously because some of them conflict with each other. Therefore, there is always a compromise between different objectives, which is why the country pursues its development-related policies at different times and under different conditions (Ebikila, Agada, Lucky and Matthew, 2018). The government and policy makers have adopted various macroeconomic policies to address these issues. Some of the policies included the use of Monetary and Fiscal Policy, Export Promotion Strategy, Import Substitution Strategy and National Economic Empowerment Strategy (NEEDS). The main objectives of the policy are price stability, maintaining the balance of payments and promoting employment, economic growth and sustainability. These goals are necessary to achieve a balance between the intrinsic and extrinsic value of money and promote long-term economic development (Nwoko, Ihomeji, and Anumudu 2016). Macroeconomic policy refers to government policies directed at the economy as a whole, usually to promote the macro goals of full employment, stability and growth. Common macroeconomic policy is fiscal and monetary policy. Fiscal policy is a macroeconomic policy where the government makes changes in public spending or taxation to encourage economic growth, while monetary policy deals with changes in the money supply or changes in parameters that affect the supply of money in the economy (Okoye, 2022). The objectives of this policy are to achieve sustainable economic growth and development, stable prices and full employment. Some of the set goals may conflict with each other, meaning that while trying to achieve one goal, the other is "sacrificed". For example, achieving full employment in the short term may lead to price inflation in the long run (Ojede, Amin and Daigyo, 2013). Macroeconomic variables are indicators or key indicators that show current trends in the economy. Macroeconomics studies the structure and performance of national economies and the policies implemented by governments to influence economic performance (Abel et al., 2011). Macroeconomics can be seen as an external factor affecting the daily operations of a company (Ihsan, Sembel and Malau, 2023). A country's investment is correlated with a number of macroeconomic factors, including gross domestic product (GDP), exchange rates, inflation, interest rates, national income, employment, international trade, industrial output, and retail sales (Abel et al., 2011). Thus, Keynes identified some of the most important macroeconomic variables that study the economy as a whole: Gross Domestic Product (GDP), Exchange Rate (EXR), Interest Rate, Inflation and Money Supply.

2.2 Interest Rate

Many scholars have defined interest rate with different meanings to give meaning to users of accounting data or financial data. Interest is the price paid for borrowing money, which is sometimes determined by the forces of supply and demand (Obura and Anyango, 2016). The reason for the acquisition of loanable funds is the capital structure of managers, which allows

for a balanced leverage ratio to ensure effective and efficient operations (Osoro and Ogeto, 2014).

Loading charges are financial charges that financial institutions or individuals charge for funds provided by a lender to a borrower, usually based on a percentage of the principal or actual loan amount. According to the neoclassical theory, an increase in interest rates negatively affects the investment decision and thus leads to a decrease in economic activity. Paying a financial cost is the capital investment company paid for the borrowed funds and the cost can affect the involved companies either positively or negatively, which in turn affects the investment decision (Olweny and Omondi, 2011). Adegbemi (2018) noted that macroeconomic variables such as interest rates play a vital role in attracting investors. Without interest rate stability, domestic and foreign investors will stay away and resources will be diverted. Econometric evidence on investment behavior shows that, in addition to traditional factors (past growth in economic activity, real interest rates, and private sector credit), private investment is significantly and negatively affected by uncertainty and macroeconomic instability. Mwangi (2013) explains that the financial performance of an organization is usually determined by some critical macroeconomic factors such as interest rate, exchange rate, inflation, unemployment, money supply and stock market. Both governments and individual investors watch these variables closely. The results of this study revealed that there is a weak negative insignificant correlation between return on assets and average interest rate. A study by Baba and Nasieku (2016) showed that interest has a negative and significant relationship with the financial performance of Nigerian banks. A study by Chimkono (2017) investigated the impact of both micro and macroeconomic variables on the financial performance of commercial banks in Malawi. The results showed that loan accounts significantly affect the financial performance of banks in Malawi. A study by Njuguna (2013) on the impact of macroeconomic variables on the financial performance of depository microfinance institutions in Kenya showed that an increase in interest rates leads to a decline in financial performance as measured by return on assets. A study by Simiyu and Ngile (2015) investigated how macroeconomic factors affect the profitability of commercial banks in Kenya. The results showed that there is a negative significant relationship between profitability and interest rate. A study by Kungu (2013) showed that the interest rate is third after inflation when it comes to microeconomic variables that have the greatest positive impact on the financial performance of companies. The study found that there is a positive relationship between interest rates and performance of commercial banks in Kenya. According to Khan and Sattar (2014), the effect of interest rates on the financial performance of companies can be in both directions. Therefore, depending on its movement, it can be either negative or positive. A study by Osamwonyi and Chijuka (2014) examined the impact of macroeconomic factors on the financial performance of commercial banks. The study revealed that interest rate has a negative significant relationship with the financial performance of the organization.

2.3 Inflation Rate

One economic variable that has continued to disrupt or cause setbacks for many countries is inflation because during inflation the value of money decreases as the prices of goods and services rise (Maimunah and Patmati (2018). Because inflation affects the bottom line and other performance variables) such as net worth, return on equity, etc., the first reaction point is the volume of sales and also the effect on the level of operating costs, which also leads to a decrease in the stock of matter and other variables (Akabom-Ita, 2012). As a result, an increase in inflation causes a decrease in the value of currencies and this affects companies that use local components or materials in their production, because it takes more naira to buy

few components or materials. When inflation is low, firms can still operate efficiently within certain limits, but high inflation reduces the profitability of firms because the prices of production inputs rise and the demand for output also decreases, leading to lower annual income growth (Meyers, 2001). An increase in the inflation rate affects the manufacturing industry in two ways; This can lead to an increase or decrease in sales, depending on how companies manage to control the increase in the cost of materials used in production. The increase in inflation also affects procurement components and also the cost of existence in the market. The effects of inflation are not included in the nominal financial statements prepared by management, but the effects have always caused consequences for the economy even during a period of relatively low inflation (Ali, 2015). Kungu (2013) showed that inflation is second only to GDP in terms of microeconomic variables with the greatest positive impact on corporate financial performance. A study by Desaro (2012) investigated the impact of macroeconomic variables on the financial performance of commercial banks in Kenya. The study revealed that return on capital is positively correlated with inflation. This is supported by a study conducted by Onger (2014) which showed that inflation has a positive effect on bank profitability because banks receive higher returns on cash flows. This is also supported by Baba and Nasieku (2016) who pointed out that there is a positive correlation between inflation and bank financial performance.

2.4 Financial Performance

Efficiency is the ability of an organization to use its environment to obtain limited resources, which is done by measuring the perceptions, opportunities, and challenges of the various stakeholders of the organization (Kidron and Peretz, 2022). Strong financial performance is an example of success of banks in their operational activities (Najam et al, 2022). The financial performance of a company is the most important factor in analyzing the overall performance of the company itself. The economic result is the value according to the financial statements included in the annual and quarterly reports of the company. The economic performance of a company can be seen through financial indicators such as liquidity ratio, solvency, activity ratio, profitability and market value (Aruan et al., 2022; Bertuah and Sakti, 2019; Razak et al., 2020). The key numbers aim to assess the financial condition of the company during the preparation of the annual accounts. The results of KPIs can reflect the state of the financial performance of the company or the bottom line (Malau and Murwaningsari, 2018). Financial performance includes elements of accounting literature, and for decades researchers have considered sub-elements or variables suitable metrics to evaluate the performance of small, medium and large companies/organizations (Kaguri, 2013).

2.5 Empirical Studies

Mwenda, Ngollo and Mwasota (2023) analyzed the effect of macroeconomic variables on 21 DSE-listed firms from 2006 to 2021 due to past inconclusive results from other research across the globe. Mixed-sequential explanatory research design was used. Random effect model and thematic analysis were utilized for data analysis. The study found that GDP, inflation, and money supply had significant positive coefficients, while interest rates and exchange rates had significant negative coefficients, indicating that macroeconomic conditions have a substantial effect on firm performance. Alfred (2023) analyzed the influence of those internal macroeconomic factors that can be used to formulate strategies to develop the financial efficiency of banks, and how much these factors affect the financial efficiency of banks. The research used is an explanatory study. The object of the study namely; Conventional banks and Islamic banks located in Bitung, North Sulawesi, Indonesia were selected using purposive sampling. The study was conducted from August to October

2022. The data used in this study is secondary data obtained from; financial statements of selected banks. Inflation, interest rates, composite stock price index, exchange rates and gross domestic product (GDP), capital adequacy ratio (CAR) has effect on return on assets (ROA). The impact of macroeconomic conditions variables on banking activity is 76.9%, while the remaining 23.1% is the impact of other variables not included in this study. Walde and Makori (2022) established effect of macroeconomic variables on the financial performance of the DTMFIs in Kenya. The causal research design was employed in the study. The study adopted census where all thirteen (13) DTMFIs that are operational in Kenya were considered. The study utilized secondary data which was obtained from the annual supervisory reports on DTMFIs by CBK and KNBS for duration of ten (10) years (2010-2019). Diagnostic tests that were carried out include multicollinearity test, linearity test, heteroscedasticity test, normality test, unit root test and autocorrelation test. Karl Pearson correlation moment and multiple regression analysis model was used to analyze data. Multicollinearity results showed that there was a weak correlation between interest rate and financial performance. There was a very weak correlation between inflation rate and financial performance, the correlation between exchange rate and financial performance was moderately strong while the correlation between GDP and the financial performance was strong. Additionally, the correlation was positive for interest rate, inflation rate and GDP and negative for the exchange rate. Umar, Jaleel and Shamshair (2020) conducted a study titled "Do Macroeconomic Factors Affect Firm Investment Decisions?" Generalized method of moments (GMM) was employed. The researchers studied 12 Asian countries, where the study covered 10 years, and the analysis method is the GMM approach, which was used to find out the relationship between macroeconomic factors and capital investment of companies. Based on the results of the study, it was concluded that an increase in inflation leads to a decrease in investment due to an increase in future investment costs. An increase in interest rates also leads to a decrease in capital investment, which affects the value base of companies. Countries with good GDP also have opportunities to increase capital investment, but countries with high FDI had high competition and their investment opportunities are low. Ahmed *et al.* (2018) did a research on interest rates and financial performance of Pakistan banks. Determinants for measuring financial performance were ROA, ROE, and EPS. Annual data of 20 banks operating in Pakistan from 2007-2014 was obtained. The study used Correlation and Regression analysis and the result shows that deposits with other banks and interest rate are negatively affecting the profitability of banks. Haider, *et al* (2018) ascertained the macroeconomic variables impact on financial performance, using the financial statement of listed companies in Automobile sector of Pakistan stock exchange. The study covered the period from 2007 to 2016. Before applying the GMM model the preliminary test was done. Firm performance is measured with return on assets, return on equity and gross profit margin ratio. The results revealed that the selected macroeconomics variables have the negative relationship with return on equity, return on assets and gross profit margin and the inflation has positive relation with return on equity and negative relation with return on assets (ROA) and gross profit margin (GPM). Khan, Ullah, Ali and Khan (2018) have empirically investigated the relationship between the interest rate, inflation rate, exchange rate, GDP growth rate and the unemployment rate with the dividend payout ratio. The authors collected the macroeconomic variables data from the State Bank of Pakistan and the dividend payout ratio data from the official website of the companies. For the analysis of the data the authors used OLS model. Form the analysis of the data the authors concluded from his result that there is a positive relationship between the exchange rate and the unemployment rate and negative relationship with the interest rate, inflation rate and GDP growth rate with the dividend payout ratio. The scholars investigated the impact of macroeconomic variables on the dividend payout ratio: evidence from the textile sector listed

on the Pakistan Stock Market. The study concluded from his result that the inflation rate has a negative impact on the dividend payout ratios and the interest rate and the exchange rate has a positive relationship with the dividend payout ratios.

3.0 RESEARCH METHODOLOGY

3.1 Research Design

The study employed *Ex-Post Facto* as the research design. By analyzing events or past information for potential counterproductive factors, *Ex-Post Facto* identifies factors related to certain conditions, situations, events, or behaviors. This is applicable because the purpose of the study is to determine the effect of one variable on another without the experimenter manipulating the variables.

3.2 Populations

The population of the study consist the Airbus companies operating in United Kingdom. The elements of the population include the annual reports and accounts of the companies.

3.3 Source of Data Collection

Data for the study were extracted form the International Monetary Fund, World Bank and OECD indicators, as well as the annual financial reports of the Airbus Company in United Kingdom (UK). The data include; interest rate, inflation rate, exchange rate, grosses domestic product, and money supply growth for independent variables and return on assets for dependent variable, while firm leverage and firm size for control variables. The time series data covers twenty four (24) years from 1999 to 2022. The purpose is to ensure equal representative of the periods between the dependent and independent variables.

3.4 Model Specification

The study applied the model of Muftaudeen and Hussainatu (2014) which looked at macroeconomic variables and performance of commercial banks in Nigeria.

The model is stated thus:

$$ROA = f (ITR, IFR)$$

$$ROA_{it} = \beta_0 + \beta_1 ITR_{it} + \beta_2 IFR_{it} + \beta_3 FSZ_{it} + \mu - - - - -1$$

ROA_{it}= Return on Asset of firm i in period t (Dependent variable)

ITR_{it} = Interest Rate i in period t (Independent variable)

IFR_{it}= Inflation Rate i in period t (Independent variable)

FSZ_{it}= Size of firm (Total Assets) i in period t(Control variable)

β_0 and μ are the constant and error term respectively

3.5 Data Analysis Techniques

Descriptive statistics will be employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics will also be utilized with the aid of E-Views 9 using:

- i. Coefficient of correlation: which is a good measure of relationship between two variables that tell us about the strength of relationship and the direction of the relationship as well?
- ii. Multiple regressions analysis: Regression analysis envisages the value of the dependent variable based on the value of the independent variable and clarifies the effect of variations in the values of the variables.

Decision

The study's hypotheses were tested with a 5 percent margin of error. Therefore, when the p-statistic appeared at or equal to the critical level of 0.05, we accepted the alternative hypothesis and confirmed that a significant association existed.

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix)

Table 4.2: Correlation Analysis Matrix

	ROA	ITR	IFR	SIZ
ROA	1			
ITR	-0.310975	1		
IFR	0.383972	-0.189364	1	
FSZ	0.351434	-0.828853	0.255574	1

Source: researcher's computation (2023)

The use of the correlation matrix in most regression analyzes is to check multicollinearity and examine the relationship between each explanatory variables (ITR and IFR) and the dependent variable (financial performance) such as ROA. Table 1 focused on the correlation between ROA and independent variables (ITR, and IFR). The results of the correlation matrix table show that all our independent variable (ITR=-0.311) were negatively related to financial performance, while (IFR=0.384, FSZ=0.351). Checking for multicollinearity, we found that the two explanatory variables were not perfectly correlated. This means that there is no problem of multicollinearity between the explanatory variables. Multicollinearity can lead to incorrect signs or implausible sizes of estimated model coefficients, as well as bias in the standard errors of the coefficients.

4.2 Test of Hypotheses

Table 2: ROA Pooled Regression Results

Dependent Variable: ROA

Method: Least Squares

Date: 06/28/23 Time: 15:27

Sample: 1999 2022

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.078101	0.072811	-4.357281	0.0005
ITR	-0.003718	0.001641	-2.265999	0.0377
IFR	0.188655	0.109474	1.723292	0.1041
FSZ	2.60E-07	1.58E-07	1.648122	0.1188
R-squared	0.790134	Mean dependent var		0.091140
Adjusted R-squared	0.786811	S.D. dependent var		0.016324
S.E. of regression	0.106326	Akaike info criterion		-7.021096
Sum squared resid	0.021640	Schwarz criterion		-6.738322
Log likelihood	91.32572	Hannan-Quinn criter.		-6.867217
F-statistic	17.38160	Durbin-Watson stat		1.945505
Prob(F-statistic)	0.001461			

Source: Researcher's computation through E-view 9.0 statistical package

From the above table 2, the R-squared and adjusted squared values were (0.79) and (0.78). This shows that all independent variables together explain about 78% of the systematic variation in our company's ROA over a 24-year period (1999-2022). The F-statistic (17.382) and its Prob(F-statistic) of 0.0015 indicate that the financial performance regression model is well specified. The study also found that the DW statistic is 1.946, and the information criteria of Akaike and Schwarz criteria, which are 7.021 and 6.738, also confirms this. our model is well defined. However, the control variables; firm size (FSZ) but was not statistically significant p-value = (0.1188).

Hypothesis One

Ho₁: Interest rate has no positive significant effect on financial performance of Airbus companies in United Kingdom.

From Table 2, the coefficient of interest rate (ITR) is -0.003718 and p-value is 0.038 and it is found to have a negative effect on the financial performance of our sample companies and this effect is statistically significant as its p-value. is less than 0.05.

The decision:

Therefore, this result suggests that we accept our alternative hypothesis (Ho₁) that interest rate has a negative and significant effect on the financial performance of Airbus companies in United Kingdom.

Hypothesis Two

Ho₂: Inflation rate has not positively significant effect on financial performance of Airbus companies in United Kingdom.

From Table 4.3, Inflation Rate (IFR) has a coefficient of 0.188655 and a p-value of 0.104, it was found that it has a positive effect on the financial performance of our sample company, but this effect was not statistically significant because its p. -value is greater than the value of 0.05.

The decision

Therefore, this result suggests that we should accept our null hypothesis and reject the alternative hypothesis (Ho₁) that inflation has a positive and insignificant effect on the financial performance of Airbus companies in United Kingdom.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study examined the impact of macroeconomics on the financial performance of Airbus companies in the UK. The data were collected from the indicators of World Bank and OECD, as well as the annual reports of the United Kingdom (UK) Airbus Company for a period of 24 (24) years from 1999 to 2022. The hypotheses were tested using multiple regression analyses. The result revealed that the interest rate has a negative and significant effect on the economic in Great Britain, while inflation has a positive and insignificant effect on the financial performance of British Airbus companies in United Kingdom.

The research result shows that companies that have learned to adapt to the surrounding business environment operate optimally, encourage companies to innovate and increase productivity, maximize shareholder value, and this ultimately leads to better corporate performance. Therefore, managers and other relevant stakeholders must know that there is a

direct relationship between macroeconomic variables and the financial performance of a company

5.2 Recommendations

Based on the findings, the study proffers the following recommendations;

1. The interest has a negative impact on the economic results of Airbus companies in the UK; the government has been advised to control interest rates through macroeconomic regulators depending on fluctuations in inflation levels, which will significantly contribute to the ability of corporate firms to provide financial intermediation services efficiently and sustainably.
2. The government, through the Ministry of Finance and Planning, must ensure that inflation is controlled so that it has a positive impact on the company's operations and results. Stopping inflation in the country has a positive effect on individual companies and the national economy.

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