THE IMPACT OF MACROECONOMIC VARIABLES ON THE PERFORMANCE OF ISLAMIC BANKS: AN EMPIRICAL STUDY

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ARTICLE INFO	ABSTRACT
	Purpose: The study examines the impact of macroeconomic variables (economic growth, public debt growth, inflation, foreign direct investment, and balance of payments) on the performance of Islamic banks (return on assets, return on equity, and return on equity). **Theoretical framework:** These economic changes have also reduced the level of working capital in financial institutions, including Islamic banks, making it difficult for them to determine the best course of action (Kotz, 2009). **Design/methodology/approach:** The study used multiple linear regression analyses of periodic data for Jordanian Islamic banks in Jordan during the period (2007-2021). **Findings:** The findings demonstrated a positive correlation between macroeconomic factors and performance, except for foreign direct investments, which have a negative effect on performance because they require the use of external financial resources. This means that the country's use of expansionary fiscal policy or expansionary monetary policy leads to better performance. **Research, Practical & Social implications:** The researcher points out that the government should use an expansionary fiscal and monetary policy, and foreign investors should use the funds of Islamic banks in financing and investments to improve the performance of Islamic banks. **Originality/value:** The performance of Islamic banks will improve despite the high rates of inflation, public debt and balance of payments, and the decline in foreign direct investment.

O IMPACTO DAS VARIÁVEIS MACROECONÔMICAS NO DESEMPENHO DOS BANCOS ISLÂMICOS: UM ESTUDO EMPÍRICO

RESUMO

Objetivo: O estudo examina o impacto das variáveis macroeconômicas (crescimento econômico, crescimento da dívida pública, inflação, investimento estrangeiro direto e balanço de pagamentos) sobre o desempenho dos bancos islâmicos (retorno sobre ativos, retorno sobre patrimônio e retorno sobre patrimônio).

Referencial teórico: Essas mudanças econômicas também reduziram o nível de capital de giro nas instituições financeiras, incluindo os bancos islâmicos, tornando difícil para eles determinar o melhor curso de ação (Kotz, 2009).

Desenho/metodologia/abordagem: O estudo utilizou análises de regressão linear múltipla de dados periódicos para bancos islâmicos jordanianos na Jordânia durante o período (2007-2021).

Resultados: Os resultados demonstraram uma correlação positiva entre os fatores macroeconômicos e o desempenho, exceto para os investimentos estrangeiros diretos, que afetam negativamente o desempenho porque exigem o uso de recursos financeiros externos. Isso significa que o uso do país de política fiscal expansionista ou política monetária expansionista leva a um melhor desempenho.

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Pesquisa, implicações práticas e sociais: O pesquisador aponta que o governo deve usar uma política fiscal e monetária expansionista, e os investidores estrangeiros devem usar os fundos dos bancos islâmicos em financiamentos e investimentos para melhorar o desempenho dos bancos islâmicos.

Originalidade/valor: O desempenho dos bancos islâmicos vai melhorar apesar das altas taxas de inflação, da dívida pública e da balança de pagamentos e da queda do investimento estrangeiro direto.

Palavras-chave: Desempenho, Variáveis Macroeconômicas, Bancos Islâmicos.

EL IMPACTO DE LAS VARIABLES MACROECONÓMICAS EN EL DESEMPEÑO DE LOS BANCOS ISLÁMICOS: UN ESTUDIO EMPÍRICO

RESUMEN

Propósito: El estudio examina el impacto de las variables macroeconómicas (crecimiento económico, crecimiento de la deuda pública, inflación, inversión extranjera directa y balanza de pagos) en el desempeño de los bancos islámicos (rendimiento de los activos, rendimiento del capital y rendimiento del capital).

Marco teórico: estos cambios económicos también han reducido el nivel de capital de trabajo en las instituciones financieras, incluidos los bancos islámicos, lo que les dificulta determinar el mejor curso de acción (Kotz, 2009).

Diseño/metodología/enfoque: el estudio utilizó análisis de regresión lineal múltiple de datos periódicos de bancos islámicos jordanos en Jordania durante el período (2007-2021).

Hallazgos: Los hallazgos demostraron una correlación positiva entre los factores macroeconómicos y el desempeño, a excepción de las inversiones extranjeras directas, que tienen un efecto negativo en el desempeño porque requieren el uso de recursos financieros externos. Esto significa que el uso del país de una política fiscal expansiva o una política monetaria expansiva conduce a un mejor desempeño.

Implicaciones sociales, prácticas y de investigación: el investigador señala que el gobierno debe usar una política fiscal y monetaria expansiva, y los inversionistas extranjeros deben usar los fondos de los bancos islámicos en financiamiento e inversiones para mejorar el desempeño de los bancos islámicos.

Originalidad/valor: El desempeño de los bancos islámicos mejorará a pesar de las altas tasas de inflación, deuda pública y balanza de pagos, y la disminución de la inversión extranjera directa.

Palabras clave: Desempeño, Variables Macroeconómicas, Bancos Islámicos.

INTRODUCTION

At the end of the last century and the beginning of this century, the world experienced financial and economic crises that had significant negative consequences, among them the failure of many financial institutions, high unemployment, inflation, public debt, poverty rates, and low production. These economic changes have also reduced the level of working capital in financial institutions, including Islamic banks, making it difficult for them to determine the best course of action (Kotz, 2009).

Recently, technological developments, revisions of guidelines, policies, and regulations, implementation of economic reform initiatives, assistance in solving economic issues that promote the prosperity of the Islamic banking industry, and easing of restrictions imposed on these banks in international markets have increased the interest of countries in the Islamic banking sector, which has led to Improving the investment climate.

Islamic finance plays an important role in the Jordanian banking industry, with total assets of 10.5 billion Jordanian dinars, half of which represent the assets of the Jordan Islamic

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Bank, the first bank established in Jordan and providing Islamic banking services since 1978. The rest represent the assets of the Islamic International Arab Bank and Al Safwa Bank, which were established in 1995 and 2010, respectively, according to the data of the Jordanian Central Bank (https://www.cbj.gov.jo/Pages/ view page.aspx?pageID=67) for the year 2021, these banks are distinguished by providing all banking services, financing, and investments in accordance with the instructions and laws of Islamic Sharia.

Performance indicators in particular, have received the attention of many researchers, and these indicators have developed remarkably with time. Revenue was used as a measure of performance at first, and controversy emerged about this measure, which led to the adoption of accounting profits as an indicator to measure performance instead of revenue, and with time criticism appeared on This measure because it ignored the available resources, which led researchers to adopt new measures of performance, including return on assets, return on equity, and return on a stock. These indicators were used to measure performance in Islamic banks in the current study(Alkhalialeh, 2004).

The economic factors in the global markets are witnessing an active rise and fall, and in light of the instability of the economic factors due to political reasons, wars, and health pests that are plaguing the economies of the world, including the Jordanian economy, as well as the great competition between banks in general and with Islamic banks in particular, all of this has affected the performance significantly in Banks, including Islamic banks, during the last two decades. In light of the foregoing, the current study seeks to measure the impact of economic factors (economic growth, public debt growth, inflation, foreign direct investment, balance of payments) on the performance of Jordanian Islamic banks represented in return on assets, return on equity and return on a stock during the period (2007-2021).

LITERATURE REVIEW

Several studies have shown that macroeconomic factors have a positive impact on the performance of the corporate, including Hafiz et al. (2020) and Karim et al. (2010) attributed this to inflation and growth within the indebtedness of the macroeconomic indicators if they increase, it'll result in a rise in income growth greater than the rise in cost growth, and so the company's profitability and performance will improve. There is another explanation for the positive relationship, which is the economic recovery to the increase in the production of companies to reach economies of scale that reduce the value of assets and thus increase profits. Contrary to what was found in a study by Rahman et al. (2021), Combey and Togbenou (2017),

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and Lee (2003), there is an inverse relationship between economic factors and company performance, which is represented by the rise in financial resources, money supply, unemployment rate, and Debt will increase the demand for capital and then the value of assets will increase and then profits will fall. As for the study by Lee (2003), it was reported that the speed of inflation is closely related to the performance of the company (measured by return to assets); A rise in the level of inflation will cause income to increase at a lesser rate than the rise in costs, and consequently, profits will fall. Based on the foregoing presentation of previous studies within the literature, a summary of those studies is going to be presented, arranged in line with the date of publication of the article from the most recent to the oldest, including each summary of the aim of the study, the kind of information, the method utilized in the study and the way it's processed for data, and a few results and suggestions that came out of those studies as follows:

Rahman et al. (2021) assessed the impacts of major macroeconomics, including the rate of interest, GDP growth, rate, and foreign direct investment on the financial performance of sugar mills in Pakistan. Ten-year panel data is compared across all 29 sugar mills listed on the Pakistan Exchange (PSX) for 2010-2019 via a multivariate analysis model. But the link was negative. GDP growth, rate of interest, charge per unit, and rate were found to own a negative association with ROA. Certain macroeconomic indicators have a major impact on the profitability of the sugar industry in Pakistan. Supported the results, mills must constantly monitor the rate of interest, charge per unit, and rate of inflation because these variables are negatively affecting the sugar Mills' performance.

Widarjono et al. (2021) empirically examined the asymmetric response of the Indonesian Islamic stock market to macroeconomic variables involving money supply, domestic production, exchange rate, and Federal Reserve rate in the Southeast Asian country using the Jakarta Islamic Index and monthly data from January 2000 to December 2019. Application of Nonlinear Distributed Delay (NARDL). The study concluded that there is no transmission mechanism from GDP and interest rates to Islamic stock prices. The results indicate that the easy money policy and currency stability are two keys to supporting Indonesian Islamic stock prices.

AlSharif (2021) estimated the consequences of the 000 rate and real rate of interest on the Performance of Islamic Banks (return to assets, return to equity, and return for share). This study applied Multiple linear regression to comprehensively analyze the correlation between variables by using annual panel data in Jordanian Islamic Banks for the amount 2005-2019.

The results of the study showed that Islamic Bank's Performance responded negatively to real interest rates and real exchange rates within the models. The explanation for the inverse relationship within the study findings is that an increase in real exchange rates will increase imports and decrease exports which successively ends up in a decrease in domestic investment, a decrease in deposits and facilities in Islamic banks, and thus a decrease within the return to assets, return to equity and return on share.

Almansour et al. (2021) studied the impact of inflation on the performance of the banking sector in Jordan, through the data of five Jordanian banks listed on the Amman Stock Exchange during the period 2009-2019. Where the quantitative approach of regression analysis was used to explore the effect of inflation on the performance of banks (return on assets, return on investment, and net interest rate). The results of the paper show that there is a strong and negative relationship between the rate of inflation and the performance of banks. In addition, interested parties can pay attention to other macroeconomic variables to check the effect of macroeconomic factors on the performance of banks.

Hafiz et al. (2020) stated that third-party funds and profit-sharing financing in Islamic banking in Indonesia are influenced by external factors referred to as macroeconomics. The strategy utilized in this research is the path analysis method with a trimming model. The results of this study indicated that macroeconomics simultaneously affects the funds of third parties. In part, GDP has a bearing on third-party funds with a p-value of $0.000 < 0.05$, where inflation doesn't only impact third-party funds. Meanwhile, the simultaneous effect of macroeconomics on profit-sharing is because the partial effect shows inflation. From the above results, indirectly, through third-party funds, macroeconomics is healthier for profit-sharing financing because the increase and fall of third-party funds have a major impact on profit-sharing financing in Islamic banking.

Sasidharan et al. (2020) explored the variables that affect the financial performance of the 18 insurance companies on the UAE stock exchange. Return on assets (ROA) is the main measure of financial performance, and macroeconomic factors such as GDP per capita and inflation are considered independent factors. The study used correlation and multiple linear regression analysis to determine financial performance and its effects. The analysis indicates that there are important and constructive relationships between volume, capital adequacy, and reinsurance dependence. There is no relationship between per capita GDP, inflation, and financial performance.

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Ayoob (2019) looked at the performance of the Coca-Cola Company with specific factors (liquidity risk) and macroeconomic variables that affect profitability. Data were examined for Coca-Cola from 2013 to 2017. The study used Pearson correlation to work out the link between liquidity risk and company performance likewise to macroeconomic variables with company performance. The study found that the performance of profitability and liquidity risk isn't important together. While for external factors, GDP growth, inflation, unemployment, and rate of exchange have a negative relationship with profitability.

Akbar et al. (2018) looked at the effect of macroeconomics, capital structure, and liquidity on bank performance. This study uses a quantitative method approach to realize the objectives and answer the research questions and test the hypothesis that has been developed; the population during this study is foreign banks listed in the 2007-2016 period, as many as 10 banks (cross-section), The results showed that there's a big influence of the macroeconomic factor, capital structure and liquidity on the performance of foreign banks in Indonesia (return on assets), and therefore the rate incorporates a significant impact on the return on equity.

Lee and Brahmasrene (2018) examined the dynamic short-term and long-term relationships between macroeconomic variables and stock prices on the Korea Stock Exchange during the period for which monthly data are available from January 1986 to October 2016 (370 notes). The study used unit root testing, co-integration testing, vector error correction estimations, impulse response testing, and structural cracking testing. The results indicated that there is a long-run equilibrium relationship between stock prices and macroeconomic variables in Korea and that the money supply and the short-term interest rate are not related to short-term stock prices. The exchange rate is positively correlated with stock prices while industrial production and inflation are negatively correlated with short-term stock prices.

Combey and Togbenou (2017) examined the link between three key macroeconomic indicators (GDP, real effective rate, and inflation) and banking sector profitability (measured by return on assets and return on equity) in To-go, from 2006 through 2015, using an estimator Pool Mean Group. The results show that the bank's return on assets and return on equity don't seem to be associated with macroeconomic variables within the short term, and therefore the results indicate that real GDP growth, the real effective charge per unit, and inflation negatively affect the bank's return on equity within the long run. Therefore, policymakers and banking sector managers should try and take into consideration and improve real GDP growth, the real effective charge per unit, and anticipate inflation fluctuations.

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Zhang and Daly (2015) examined the impact of bank-specific, macroeconomic, financial variables, and globalization on the performance of Chinese banks from 2004 to 2010. The results indicate that banks with lower credit risk, which are well-capitalized, tend to be more profitable, Macroeconomic variables indicate that financial services in China tend to grow in tandem with the process. Our results also indicate that greater economic integration through increased trade and capital in-flows coincides with increased bank profitability. Likewise, social and political globalization appears to exert positive effects on the profitability of Chinese banks.

Lee (2014) examined the connection between company-specific and macroeconomic factors on profitability within the Taiwanese property and insurance industry using panel data from 1999 to 2009. Using the operating ratio and return on assets (ROA) for two types of insurance company profitability indicators. Re-insurance, input cost, and return on investment were used. The results showed that the process rate contains a major impact on profitability within the operating ratio model, but it doesn't have a significant impact on profitability within the return on assets model. It should be of interest to regulators, investors, and policyholders.

Kiganda (2014) stated that it is not clear whether or not macroeconomic factors affect bank profitability in Kenya. The main purpose of this study was to establish the effect of macroeconomic factors on bank profitability in Kenya with Equity banks in focus to understand a country and bank-specific characteristics. This study was modeled on the theory of production and based on a correlation research design. The sample size consisted of annual data spanning 5years from 2008- 2012. This study employed OLS to establish the relationship between macroeconomic factors and bank profitability. The results indicated that we concluded that macroeconomic factors do not affect bank profitability in Kenya. Because of this, it is clear that internal factors which relate to bank management significantly determine bank profitability in Kenya. The study, therefore, recommends that banks adopt policies that enhance managerial efficiency for higher profits to be realized.

Karim et al. (2010) studied the impact of things that contributed to the profitability of Islamic banks in Africa from the number 1999-2009. Using panel data techniques, the effect of bank-specific and country-specific variables on profitability was examined. The results showed that increasing the bank's capital and size increases the bank's profitability while reducing its credit risk and operating efficiency. And so, With regards to the macroeconomic indicators, higher economic growth and inflation spur banks' profitability. Finally, empirical results

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showed strong support for the suggestion that higher banking development finally ends up in lower bank profitability.

After reviewing previous studies, we couldn't determine the type of relationship, positive or negative, or the absence of sway of macroeconomic factors on performance. Therefore, the foremost hypothesis must be formulated:

There is no statistically significant relationship between the macroeconomic factors; economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5), and performance(Y) in Islamic banks at a serious level of 5%, sub-hypotheses are derived from it:

1- there isn't any statistically significant relationship between macroeconomic factors (economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5), and performance represented (Y1: Summation net income after tax for banks / total assets for banks).

2- there is no statistically significant relationship between macroeconomic factors; economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5), and performance represented (Y2: Summation net income after tax for banks / total equity for banks).

3- there is no statistically significant relationship between macroeconomic factors; economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5), and performance represented (Y3: Summation net income after tax for banks /number of shares for banks).

The data of Islamic banks were extracted from the banks' budgets directly and compared with the financial data within the Amman Financial Market. The knowledge on macroeconomic factors was extracted from the Department of Statistics and so the financial organization, and also the study period covered from the beginning of 2007 until the highest of 2021.

MATERIAL AND METHODOLOGY

This study relies on a descriptive approach from a theoretical perspective and a statistical and conventional approach from an applied perspective. It uses statistical tools, quantification, and estimation of multiple simple regression equations, as well as the E-Views program and Excel to analyze the data of the study variables.

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Data and Variables

The study population consists of three Jordanian Islamic banks listed on the Amman Stock Exchange. The study population was International Islamic Arab Bank, Jordanian Islamic Bank, and Safwa Bank during the period (2007-2021).

This study uses yearly time series data from January 2007 to December 2021, with 15 observations. Description of the data source includes the variables of performance taken from Islamic banks; International Islamic Arab Bank, Jordanian Islamic Bank, and Safwa Bank. But economic growth (X1), public debt growth(X2), inflation (CPI)(X3), direct foreign investment(X4), and the balance of payments (X5) were obtained from the Central Bank of Jordan website (https://www.cbj.gov.jo/Pages/viewpage. aspx?pageID=67). According to the data series from daily data to yearly data using the average approach, performance indicators, and macroeconomic factors were derived, as shown in Table 1:

Table 1 – Description of Variables in the Model

Variable Type	Variable Name	Unit	Measurement Method	Symbol
Dependent variables	Return to assets	Jordanian dinar	Summation of net income after tax for banks / total assets for banks	Y1
	Return to Equity	Jordanian dinar	Summation of net income after tax for banks / total equity for banks	Y2
	Return for share	Jordanian dinar	Summation of net income after tax for banks /number of shares for banks	Y3
In dependent variables	economic growth	Jordanian dinar	The data is measured and ready on the following the Central Bank of Jordan website	X1
	Public debt growth	Jordanian dinar	The data is measured and ready on the following the Central Bank of Jordan website	X2
	inflation (CPI)	Jordanian dinar	The data is measured and ready on the following the Central Bank of Jordan website	X3
	directed foreign investment	Jordanian dinar	The data is measured and ready on the following the Central Bank of Jordan website	X4
	the balance of payments	Jordanian dinar	The data is measured and ready on the following the Central Bank of Jordan website	X5

Source: Prepared by the author (2023)

Research Method

To test the validity of the models that were adopted in the study by conducting the multiple linear regression test, which explains the explanatory ability of the models used, because the multiple linear regression method is one of the methods in which the relationship

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between variables. Accordingly, the formula for each of the study models can be written as follows:

$$Y1 = B0 + B1\ X1 + B2\ X2 + B3\ X3 + B4\ X4 + B5\ X5 + U \tag{1}$$

$$Y2 = B0 + B1\ X1 + B2\ X2 + B3\ X3 + B4\ X4 + B5\ X5 + U \tag{2}$$

$$Y3 = B0 + B1\ X1 + B2\ X2 + B3\ X3 + B4\ X4 + B5\ X5 + U \tag{3}$$

RESULTS AND DISCUSSION

To analyze data on macroeconomic factors (economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), and the balance of payments (X5)), and the performance indicators (Return to assets (Y1), Return to Equity (Y2) and A Return for share (Y3)), the data was entered into the (E-views) program to perform the following tests:

Descriptive Statistics

Table 2 of descriptive statistics shows that the mean and standard deviation of the payment balance variable X5 was the largest, explaining that the dispersion of the data of this variable compared to the mean value is very large. In addition, the maximum value of the payment balance is more than 1610, and the smallest value of the payment balance is -3344.9. For the performance, the mean of this index is about 0.0114, 00196, 0.0172, of which the maximum value and the minimum value, respectively are 0.01375, 0.0228, 0.0218, and 0.0064, 0.0121, 0.01055. Regarding the matrix of correlation coefficients.

Table 2 – Descriptive statistics of variables.

Variables	Y1	Y2	Y3	X1	X2	X3	X4	X5
Mean	0.011	0.020	0.017	9.576	9.917	83.010	-17.440	-1651.500
SD	0.002	0.003	0.003	6.810	5.951	17.365	44.581	1521.100
Min	0.006	0.012	0.011	3.034	1.250	45.650	-115.700	-3344.900
Max	0.014	0.023	0.022	29.300	21.590	110.000	97.900	1610.000

Source: Prepared by the authors (2023)

Correlations Matrix

It is noticed through Pearson's correlation coefficients (Table 3) between the variables for the first, second, and third models respectively that the largest value of the correlation coefficient is 0.542, which is a small value much less than the permissible 0.8. This means there is no correlation between the variables of the study models.

Table 3 – Correlation matrix.

Variables	X1	X2	X3	X4	X5
X1	1.000				
X2	-0.106	1.000			
X3	-0.542	0.112	1.000		
X4	0.183	0.093	0.038	1.000	
X5	0.111	-0.490	-0.497	-0.077	1.000

Source: Prepared by the author (2023)

Regression Analysis

The results of the multiple linear relationships test and the multiple regression test indicate that there are no multiple linear relationships between the independent variables because the VIP value of the independent variables is greater than (1) and less than 10, and when we return to the previous table, we found that the largest value of the correlation coefficient for the independent variables is 0.542 and this ratio less than 0.800(Gujarati & Porter, 2008).

It is noticed from Table 4 that the calculated (DW = 2.462) value is located in the model acceptance region compared to the tabular values of Durban Watson. When we return to the details in Table 4, we find that all the calculated (t) values are greater than the tabulated (t) values, and this indicates the statistical importance of the macroeconomic variables (economic growth, public debt growth, inflation, foreign direct investment, and balance of payments) at the 95 percent level. This result is reinforced by statistically significant values of the macroeconomic variables, where the largest value of the Sig is (0.043), which is less than (0.05). We note the explanatory value of the model is 0.876, which is a high and acceptable value, and this means that 87.6% of the changes that occur in performance (Return to assets) are caused by the change in macroeconomic variables. To become the first model:

$$Y1 = 0.002 + 0.856\ X1 + 0.797\ X2 + 0.522 X3 - 0.537\ X4 + 0.385\ X5 + U \qquad (1)$$

Table 4 – The results of examining the effect of macroeconomic factors (economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5)) on performance (Y1: Summation net income after tax for banks / total assets for banks)

Variables	Coefficient	t-Statistic	R^2	Sig	F	D.W	VIP
Constant	0.002	1.210	0.876	0.257	12.697	2.462	
X1	0.856	5.675		0.000			1.651
X2	0.797	5.674		0.000			1.429
X3	0.522	3.040		0.014			2.137
X4	-0.537	-4.402		0.002			1.079
X5	0.385	2.356		0.043			1.939

Source: Prepared by the author (2023), and the effect is statistically significant at ($\alpha \leq 0.05$)

It is noted from Table 5 that the coefficient of determination is (0.830), which means that the explanatory power of the model is high, and that 83% of the changes that occur in performance (Return to Equity) are caused by the change in macroeconomic variables, and that the relationship between macroeconomic variables (economic growth public debt growth, inflation, foreign direct investment, and balance of payments). And performance (Return to Equity) is very high, where the strength of the relationship is about (0.94). 17% of the changes in performance (Return to Equity) are due to other variables that were not included in the model. It is noted that these macroeconomic variables with Statistical significance, where the largest value of Sig is (0.024), are less than 0.05, and this indicates that the regression equation is statistically significant at the 5% level. This result also confirms that the calculated absolute value of (t) is greater than the tabulated absolute value of (t). And that the model is suitable based on the value of (F = 8.761), which is greater than the tabular value of (F). Thus, the second model becomes:

$$Y2 = 0.001 + 0.853\ X1 + 0.733\ X2 + 0.861\ X3 - 0.546\ X4 + 0.519\ X5 + U \qquad (2)$$

Table 5 – The results of examining the effect of macroeconomic factors (economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment (X4), the balance of payments (X5)) on performance (Y2: Summation net income after tax for banks / total equity for banks)

Variables	Coefficient	t-Statistic	R^2	Sig	F	D.W	VIP
Constant	0.001	0.332	0.830	0.748	8.761	1.758	1.651
X1	0.853	4.822		0.001			1.429
X2	0.733	4.455		0.002			2.137
X3	0.861	4.280		0.002			1.079
X4	-0.546	-3.823		0.004			1.939
X5	0.519	2.710		0.024			1.651

Source: Prepared by the author (2023), and the effect is statistically significant at ($\alpha \leq 0.05$)

Table 6 notes that the coefficient of determination is (0.850), which means that the explanatory power of the model is also high, meaning that 85% of the changes that occur in performance (return for share) are caused by changes that occur in macroeconomic variables (economic growth, public debt growth, Inflation, foreign direct investment, balance of payments). 15% of changes in performance (return for share) are caused by other variables not included in the model. When we return to the table, we find that the absolute value of the calculated (t) is greater than the absolute value of the tabulated (t), which means that the macroeconomic variables have a statistical effect on performance at the 5% level, and this indicates that the regression equation has statistical significance at the 5% level and that the

model is appropriate based on the value of (F = 10.172), which is greater than the tabular value of (F). So, the third model becomes:

$$Y3 = -0.01 + 0.874\ X1 + 0.734\ X2 + 0.958\ X3 - 0.534\ X4 + 0.695\ X5 + U \qquad (3)$$

Table 6 – The results of examining the effect of macroeconomic factors (economic growth (X1), public debt growth(X2), inflation (CPI)(X3), directed foreign investment(X4), the balance of payments (X5)) on performance (Y3: Summation net income after tax for banks /number of shares for banks)

Variables	Coefficient	t-Statistic	R^2	Sig	F	D.W	VIP
Constant	-0.001	-0.319	0.850	0.757	10.172	1.406	
X1	0.874	5.265		0.001			1.651
X2	0.734	4.753		0.001			1.429
X3	0.958	5.070		0.001			2.137
X4	-0.534	-3.979		0.003			1.079
X5	0.695	3.860		0.004			1.939

Source: Prepared by the author (2023), and the effect is statistically significant at ($\alpha \leq 0.05$)

CONCLUSION

When examining the results of multiple statistical regression models, the details of which are explained in Tables (4, 5, 6), we find that their results are similar in terms of the type and strength of the relationship, and the results are unanimous in rejecting the null hypothesis and accepting the alternative hypothesis that states that there is a relationship between macroeconomic variables. Performance with all its indicators is at the 5% level, and these results are statistically significant at the level ($\alpha \leq 0.05$) of the macroeconomic variables (economic growth, public debt growth, inflation, foreign direct investment, and balance of payments) on performance (return to assets, or return on equity or return on equity) in Jordanian Islamic banks.

Tables (4, 5, and 6) indicate that macroeconomic variables (economic growth, public debt growth, inflation, foreign direct investment, and balance of payments) have a positive effect and statistical significance, except for foreign direct investment, which has a negative impact on performance (return to assets, or return on property rights). Ownership or earnings per share is statistically significant at the 5% level, the interpretation of which means an increase in economic growth, public debt, inflation, and the balance of payments. It refers to the state of economic recovery that will boost bank demand through the development of projects and boost bank demand for its Islamic assets through the use of Murabaha, Mudaraba, Musharaka, Ijara, and other Islamic financial instruments. In comparison to assets, property rights, and a portion of profits, this increases the return in the bank. Therefore, implicitly, Islamic banks perform better, and on the other hand, if foreign direct investment increases in a

nation, it means investing with foreign money. This investment will compete with local investment, reducing demand for bank assets. To counter this, citizens should be encouraged to request bank assets through Murabaha, Mudaraba, Musharaka, or Ijarah (ending with Ownership). Banks reduce the return on assets, equity, and shares, and this decrease will lead to a decrease in the performance level of Islamic banks.

With this great similarity in the impact of macroeconomic variables on performance with all its indicators, the management of banks can adopt any of the three study models to improve the bank's performance by taking appropriate administrative and financial decisions in expanding or reducing investment according to the economic stage in which the country is expansion or recession.

This is confirmed by Ayoob (2019). Concerning economic growth, inflation, and profits, the increase in financial resources will raise the volume of cash saved within the banks, and thus the share of profits distributed to deposit holders will decrease, which will lead to a higher rate of profit for shareholders, and lead to an increase in the return on shareholders, and thus improve the level of performance. This is confirmed by Hafiz et al. (2020), Akbar et al. (2018), and Karim et al. (2010). A study by Sasidharan et al. (2020), and Zhang and Daly (2015) showed that when the economy is not growing, firms remain at their current asset levels, and therefore there is no influence of economic factors on assets. In contrast to studies that confirmed the existence of a negative relationship between macroeconomic variables and performance, including AlSharif (2021), Almansour (2021), Widarjono et al. (2021), Lee and Brahmasrene (2018), Combey and Togbenou (2017), and Lee (2003). A study by Rahman et al. (2021) showed that however, foreign direct investment had no significant relationship. Some studies confirmed that there is no statistically significant relationship between economic growth and inflation on the one hand, and profitability on the one hand (Lee, 2014; Kiganda, 2014).

Finally, the results of this paper are of particular interest and importance to policymakers, financial economists, local investors, and international investors who deal with the Jordanian economy and the stock market. Future research can expand this study by adding more variables that have significant effects on the performance of Islamic banks such as oil prices, gold prices, and money supply, or include more than one country to obtain strong results.

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