

## DETERMINANTS OF FINANCIAL PERFORMANCE FOR THE BANKS SECTOR IN JORDAN

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Received: 12 December 2018, Revised and Accepted: 15 January 2018

### ABSTRACT

**Objective:** This study contributes to analyze a very important sector in Jordan which is banking sector. This process will be revealed by analyzing the determinants of financial performance for the banks' sector in Jordan during 2012–2016. Return on assets (ROA) was an indicator to measure the financial performance as dependent variable. On the other side, the independent variables were represented by microeconomic variables and macroeconomic variables. According to this study, microeconomic variables were liquidity quick ratio, cash and investments to total deposits, net credit facilities to total deposits, debt ratio, and profit margin. In addition to that, macroeconomic variables were gross domestic product growth rate, inflation rate, and unemployment rate as a percentage of total labor force.

**Methods:** The study relied on descriptive analytical method.

**Results:** After conducting the statistical analysis, there was an impact of profit margin on ROA at 1% significance level. The study inferred from that there was no impact of the rest of microeconomic variables and macroeconomic variables as well on the financial performance indicator.

**Conclusion:** The study recommended banks' sector in Jordan to focus and analyze the profit margin besides to analyze the changes in other independent indicators to improve the financial performance for banks' sector in Jordan.

**Keywords:** Financial performance, Microeconomic variables, Macroeconomic variables, Banking sector in Jordan.

### INTRODUCTION

Banking sector in Jordan is very important and vital sector in the Jordanian economy. For that, many studies and researches focus and analyze the banking positions during the time and every year as well. One of those studies is this study in which it analyzed the determinants of financial performance for banking sector in Jordan during 2012–2016 as 5-year study in finance and banking field.

By referring to Amman Stock Exchange (ASE) data, the banks' sector includes 16 banks. Although the number of working banks in Jordan is more than that number, this study relied on ASE data and the names of these banks are as follows:

1. Jordan Islamic Bank.
2. Safwa Islamic Bank.
3. Islamic International Arab Bank.
4. Jordan Kuwait Bank.
5. Jordan Commercial Bank.
6. The Housing Bank for Trade and Finance.
7. Arab Jordan Investment Bank.
8. Bank Al Etihad.
9. Arab Banking Corporation.
10. Invest Bank.
11. Capital Bank of Jordan.
12. Societe General De Banque - Jordanie.
13. Cairo Amman Bank.
14. Bank of Jordan.
15. Jordan Ahli Bank.
16. Arab Bank.

Our study came from reading and continuing for many previous studies about the banking financial performance in Jordan. Also, because of the importance of the banking performance in Jordan, in the Arab world, and in many countries around the globe such as the conducted study by Almazari [1]. That paper investigated the internal factors that affect the profitability of banks. The main objective was to compare the

profitability of Saudi and Jordanian banks using the internal factors for estimations. In addition to what, Khrawish and Al-Sa'di [6] performed a study about the banking profitability in Jordan by considering return on assets (ROA) and return on equity (ROE) as measures for financial performance.

### Research objectives

The objectives of this study were to clarify and give a look at financial performance determinants for banks' sector in Jordan during the period 2012–2016. Banking sector in Jordan contains Islamic and commercial banks. Hence, this study focused on the following:

1. Financial performance indicator which was measured by ROA as dependent variable.
2. Microeconomic indicators for banks' sector in Jordan which were presented by some banking ratios. This study included liquidity quick ratio, cash and investments to total deposits, net credit facilities to total deposits, debt ratio, and profit margin as independent variables.
3. Macroeconomic indicators which are the most common indicators in financial analyses and studies. Furthermore, this study included gross domestic product annual growth (GDP), inflation rate, and unemployment rate as a percentage of total labor force in Jordan as independent variables as well.

### LITERATURE REVIEW

According to the study for Bashir about assessing the performance of Islamic banks and some evidence from the Middle East [3]. The study examined the determinants of Islamic banks' performance across eight middle eastern countries between 1993 and 1998. A variety of internal and external banking characteristics were used to predict profitability and efficiency. In general, his analysis of determinants of Islamic bank profitability confirmed the previous findings. Controlling for macroeconomic environment, financial market structure, and taxation, the results indicated that high leverage and large loans to asset ratios led to higher profitability. The results also indicated that foreign-owned banks are more profitable than their domestic counterparts. Everything

remaining equal, there was evidence that implicit and explicit taxes affect the bank performance measures negatively. Furthermore, favorable macroeconomic conditions impact performance measures positively. The results also showed that stock markets are complementary to bank financing.

By referring to the empirical analysis, the researcher found relationships between banking characteristics and performance measures in Islamic banks. First, the Islamic banks' profitability measures respond positively to the increased in capital and loan ratios. This result was intuitive and consistent with previous studies. It indicated that adequate capital ratios and loan portfolios played an empirical role in explaining the performance of Islamic banks. Second, the results also indicated the importance of customer and short-term funding, non-interest earning assets, and overhead in promoting banks' profits. Third, the results suggested that the tax factors are much more important in the determination of bank performance. The inverse and statistically significant effects of taxes indicated that financial repression was distorting the performance of Islamic banks. The negative effect of the reserve tax indicated the opportunity cost of holding reserves. In fact, since deposits in Islamic banks are treated as shares and accordingly their nominal values are not guaranteed, holding reserves hurt Islamic banks in two ways: One, reserves do not yield any return to the banks, and two, holding reserves requirement reduces the amount of funds available for investment. From a policy perspective, one can argue from the results that Islamic banks should be exempted from the reserve requirement, in particular, because they were not entitled to discount loans or last resort borrowing from their central banks. Finally, it should be acknowledged that the scope of that paper was limited as several Islamic banks are not included and several interesting questions were not answered. Furthermore, due to the size of the sample and many missing observations, the results should be interpreted cautiously. As had been the case of many recent studies, the results were not very robust and may be sensitive to the type of measure of performance used.

As a study for Khan, Anuar, Choo, and Khan about the determinants of bank profitability in Pakistan a case study of Pakistani banking

sector [5]. The banking performance was influenced by deregulation, financial modernization, and technological improvement. Financial sector is the back bone of the sustainable economic growth. Hence, it was very important to assess the negative shocks to maintain the financial stability in Pakistan. That study was conducted to find the main determinants of banks' profitability considering the bank-specific variables. The analysis had been conducted on 16 banks on the basis of availability of data over the period 2000–2010. This paper used fixed effect model and random effect model to examine the impacts of net interest margin, profit-to-asset ratio, bank size, loan growth, non-interest earning, overhead expenses, taxation, insider lending, operating expenses, non-performing loans, ROA ratio, and deposit-to-asset ratio. The empirical results show a strong association between some bank-specific variables and their profitability. The variables of deposit-to-asset ratio, deposit-to-loans ratio, loans to asset ratio, loan growth, non-performing loans, net interest margin, tax, non-interest income, and ROA were the main determinates of banks' profitability in this analysis. Furthermore, the banks were divided into two groups according to their market capitalization, i.e. large and small banks. LNG is significant at 1% with positive value (3.56734) indicating that with loan growth, the bank's capacity to earn more in the market enhances. In case of small banks, the variable of loan growth is insignificant. Hence, the non-performing loans are seriously reducing the profitability of banks in small banks.

A study about the empirical analysis of the determinants of banks' profitability in Romania for Roman and Dănuțiu [9] aims to investigate the factors that had an influence on the profitability of Romanian commercial banks, between 2003 and 2011. Banks' profitability ratios were measured by return on average assets and return on average equity as dependent variables. On the other side, independent variables were measured by bank-specific factors, industry-specific variables, and macroeconomic variables.

Bank-specific factors were represented by capital adequacy, ratio of nonperforming loans to total loans, management quality measured by the non-interest expense over total assets ratio, ratio of loans to total assets, and liquidity; funding costs were expressed by the interest expenses to deposits

**Table 1: Correlations Matrix (1) and ROA Correlations**

	ROA	Quick ratio	CITD	NCFTD	Debt ratio	Profit margin	GDP growth	Inflation	Unemployment
ROA									
Pearson correlation	1	0.484	0.737	-0.272	-0.786	0.998**	0.647	0.920*	-0.576
Significant (one-tailed)		0.205	0.078	0.329	0.057	0.000	0.119	0.014	0.155
Quick ratio									
Pearson correlation	0.484	1	0.862*	-0.552	-0.687	0.503	0.537	0.780	-0.677
Significant (one-tailed)	0.205		0.030	0.167	0.100	0.194	0.175	0.060	0.105
CITD									
Pearson correlation	0.737	0.862*	1	-0.759	-0.631	0.768	0.837*	0.912*	-0.780
Significant (one-tailed)	0.078	0.030		0.068	0.127	0.065	0.039	0.015	0.060
NCFTD									
Pearson correlation	-0.272	-0.552	-0.759	1	-0.025	-0.320	-0.873*	-0.482	0.730
Significant (one-tailed)	0.329	0.167	0.068		0.484	0.300	0.027	0.205	0.081
Debt ratio									
Pearson correlation	-0.786	-0.687	-0.631	-0.025	1	-0.777	-0.232	-0.820*	0.327
Significant (one-tailed)	0.057	0.100	0.127	0.484		0.061	0.354	0.045	0.296
Profit margin									
Pearson correlation	0.998**	0.503	0.768	-0.320	-0.777	1	0.674	0.927*	-0.583
Significant (one-tailed)	0.000	0.194	0.065	0.300	0.061		0.106	0.012	0.151
GDP growth									
Pearson correlation	0.647	0.537	0.837*	-0.873*	-0.232	0.674	1	0.745	-0.891*
Significant (one-tailed)	0.119	0.175	0.039	0.027	0.354	0.106		0.074	0.021
Inflation									
Pearson correlation	0.920*	0.780	0.912*	-0.482	-0.820*	0.927*	0.745	1	-0.762
Significant (one-tailed)	0.014	0.060	0.015	0.205	0.045	0.012	0.074		0.067
Unemployment									
Pearson correlation	-0.576	-0.677	-0.780	0.730	0.327	-0.583	-0.891*	-0.762	1
Significant (one-tailed)	0.155	0.105	0.060	0.081	0.296	0.151	0.021	0.067	

\*\*Correlation is significant at the 0.01 level (one-tailed). \*Correlation is significant at the 0.05 level (one-tailed). ROA: Return on asset

ratio; and income diversification of bank was measured by the non-interest income over total gross revenues and banks' size. Next, industry-specific variables were measured by banking concentration and the ratio of stock market capitalization to GDP. Furthermore, macroeconomic variables were annual real GDP growth rate and the annual inflation rate.

The results of that study were that Romanian banks' profitability was influenced by both bank-specific factors and changes in the external environment. In the case of bank-specific factors, the results reflected that bank profitability is significantly influenced by asset quality, management quality, and banking liquidity. Among external factors, it turns out that banking concentration and economic growth rate had an important impact on bank profitability.

In 2014, Frederick conducted a study to establish the underlying factors responsible for performance of domestic commercial banks in Uganda [4]. The factors were analyzed in the light of structure–conduct performance and efficiency hypothesizes (ES). This was supplemented by global advantage theory together with home field theory. The study analyzes performance of all licensed domestic and foreign commercial banks independently on average basis. Using linear multiple regression analysis over the period of 2000–2011, the study found that management efficiency, asset quality, interest income, capital adequacy, and inflation were factors affecting the performance of domestic commercial banks in Uganda over the period of 2000–2011.

Policy implications emerged for commercial banks' management includes efficient management, credit risk management, capital adequacy levels, diversification, and commercial bank investment. In addition, monetary policy regulations and instruments should not enforce high liquidity and capital adequacy levels. Regulations on non-interest income activities should be put in place to harmonize the impact of diversification on all commercial banks' performance and to avoid exploitation of bank customers. A policy on efficient management should be put in place for bank operational expenses. This should be done by finding ways to obtain the optimal utilization of resources during the production of banking products and services. In other word, policy instruments should be able to reduce operational expenses through cost decisions. From a regulatory perspective, commercial bank performance should be based on individual commercial banks' efficiency. Policy on credit risk management should be enhanced to improve on asset quality, thus minimizing non-bank performing assets. Consequently, strong monitoring and control of assets should be exercised by both bank management and regulatory authority.

A policy on diversification should be put in place to avoid relying on traditional bank activities. A policy encouraged commercial banks to engage in non-interest income activities since non-interest income had a positive impact on bank performance. However, the regulatory authority should come in and homogenize prices of such activities to protect bank clients from being exploited. The policy instruments should allow commercial banks to manage non-bank financial assets and intermediaries including insurance products and underwriting. Similarly, policy on bank investments should be put in place since results showed that there was a significant negative impact of equity to assets ratio on bank performance over the years. The implication was that bank investments were not worth equity capital employed or the regulatory authority set up a high regulatory capital. Consequently, policy instruments should encourage commercial banks to invest optimally, while from regulatory perspective, policy direction should be directed toward optimum regulatory capital.

The study used multiple regression analysis due to the nature of the study, yet, it possessed assumptions which may not hold often. However, these assumptions were tested and found to be holding. The study adopted ratio analysis in evaluating the strength and weakness of commercial banks' performance, but ratios did not reveal the gravity and the quality of its components, although these were improved on using averages. Normally published financial statements did not give a complete picture of the activities and projection of commercial

banks' performance, for example, not all published accounts had non-performing assets over period; however, alternatives variables were used such as loan loss provisions for non-performing assets.

### Research hypotheses

In this section of the study, the hypotheses will be presented as main and secondary hypotheses to clarify the results of the statistical analysis.

$H_0$ : There was no impact of microeconomic variables and macroeconomic variables on financial performance at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_{0.1}$ : There was no impact of microeconomic variables and macroeconomic variables on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of liquidity quick ratio on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of cash and investments to total deposits on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of net credit facilities to total deposits on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of debt ratio on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of profit margin on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of GPD on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of inflation rate on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

$H_0$ : There was no impact of unemployment rate on ROA at  $\alpha \leq 0.05$  significance level for banks' sector in Jordan.

### Research variables

The microeconomic variables were taken from ASE for banks' sector during 2012–2016. On the other side, macroeconomic variables were taken from the official site of the World Bank for the same period.

#### Financial performance indicator

1. Return on assets = (net income/total assets) \* 100%.

#### Microeconomic variables

1. Liquidity quick ratio = [(Cash and balances at central banks+balances at banks and financial institutions+deposits at banks and financial institutions+financial assets at fair value through profit)/customers deposits+banks and financial institutions deposits]\* 100%.
2. Cash and investments to total deposits = [(cash and balances at central banks+balances at banks and financial institutions+deposits at banks and financial institutions+financial assets at fair value through profit+financial assets at fair value through other comprehensive income+financial assets at amortized cost)/[customers deposits+banks and financial institutions deposits]]\* 100%.
3. Net credit facilities to total deposits = net of direct credit facilities/[customers deposits+banks and financial institutions deposits]\* 100%.
4. Debt ratio = (total liabilities/total assets) \* 100%.
5. Profit margin = (net income/total income) \* 100%.

#### Macroeconomic variables

1. GDP = Consumption+investment+government spending+net exports.
2. Inflation = the percentage rate of change of a price index over time.
3. Unemployment = total percentage of total labor force.

$$ROA = \beta_0 + \beta_1 (\text{liquidity quick ratio}) + \beta_2 (\text{cash and investments to total deposits}) + \beta_3 (\text{net credit facilities to total deposits}) + \beta_4 (\text{debt ratio}) + \beta_5 (\text{profit margin}) + \beta_6 (\text{GDP}) + \beta_7 (\text{inflation}) + \beta_8 (\text{unemployment}) + \epsilon$$

According to correlation matrix (1) and ROA correlations, there are significant correlations between ROA and profit margin at 1% significance level and with inflation rate at 5% significance level as well. Meanwhile, there are positive and no significant correlations between ROA and each of liquidity quick ratios, cash and investments to total deposits, and GDP. Although there are negative and no significant correlations between ROA and each of net cash facilities to total deposits, debt ratio, and unemployment rate.

Table 2 represents the descriptive statistics of ROA and the rest of the variables. The mean value for ROA was 1.1837 and the standard deviation was 0.16875, mean value for liquidity quick ratio was 0.3580 and the standard deviation was 0.02640, mean value for cash and investments to total deposits was 67.9444 and the standard deviation was 3.79482, mean value for net credit facilities to total deposits was 59.7768 and the standard deviation was 2.86041, mean value for debt ratio was 85.6167 and the standard deviation was 0.75059, mean value for profit margin was 28.8808 and the standard deviation was 4.18001, mean value for GDP growth was 2.5940 and the standard deviation was 0.41846, mean value for inflation rate was 2.1108 and the standard deviation was 2.79627, and mean value for unemployment rate was 12.6088 and the standard deviation was 0.57304.

Next, Table 3 represents ROA model summary and the value of R was 0.998, R<sup>2</sup> was 0.996, and adjusted R<sup>2</sup> was 0.994; the standard error of the estimate was 0.01265. Finally, the value of Durbin-Watson was 2.470. After that, Table 4 represents an analysis of variance for ROA which measured F calculated was equal to 709.264 at 0.000 significance level which means that the model is suitable.

Table 2: ROA descriptive statistics

	Mean±SD	n
ROA	1.1837±0.16875	5
Quick ratio	0.3580±0.02640	5
CITD	67.9444±3.79482	5
NCFTD	59.7768±2.86041	5
Debt ratio	85.6167±0.75059	5
Profit margin	28.8808±4.18001	5
GDP growth	2.5940±0.41846	5
Inflation	2.1108±2.79627	5
Unemployment	12.6088±0.57304	5

SD: Standard deviation. ROA: Return on asset

Table 3: ROA model summary<sup>b</sup>

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard Error of the Estimate	Durbin-Watson
1	0.998 <sup>a</sup>	0.996	0.994	0.01265	2.470

<sup>a</sup>Predictors: (Constant), Profit Margin. <sup>b</sup>Dependent Variable: ROA. ROA: Return on asset

Table 4: ROA ANOVA<sup>a</sup>

Model	Sum of squares	df	Mean square	F	Significant
1					
Regression	0.113	1	0.113	709.264	0.000 <sup>b</sup>
Residual	0.000	3	0.000		
Total	0.114	4			

<sup>a</sup>Dependent variable: ROA. <sup>b</sup>Predictors: (Constant), Profit Margin. ROA: Return on asset, ANOVA: Analysis of variance

To form the regression equations for the dependent variable ROA according to Tables 4 ROA coefficients and 5 ROA excluded variables, beta values were -0.025 for liquidity quick ratio, -0.072 for cash and investments to total deposits, 0.053 for net credit facilities to total deposits, -0.027 for debt ratio, -0.047 for GDP, -0.036 for inflation rate, and 0.008 for unemployment rate at insignificant levels. On the other hand, beta value for profit margin was 0.040 at 0.000 significance level. Hence, the equations will be as follows:

$$ROA = 0.020 \pm 0.025 (\text{liquidity quick ratio}) \pm 0.072 (\text{cash and investments to total deposits}) + 0.053 (\text{net credit facilities to total deposits}) \pm 0.027 (\text{debt ratio}) + 0.040 (\text{profit margin}) \pm 0.047 (\text{GDP}) \pm 0.036 (\text{inflation}) + 0.008 (\text{unemployment})$$

$$ROA = 0.020 + 0.040 (\text{Profit margin})$$

By looking at Fig. 2 which represents the trend of ROA during 2012–2016, there were an increase in ROA (2012–2013) from 1.24% to 1.41% and then a decrease (2013–2015) from 1.41%, 1.22%, and 0.97%. Finally, the ratio for ROA became 1.07%. After that, by analyzing Fig. 3 which represented liquidity quick ratio time for banking sector in Jordan during 2012–2016, the reader can notice the values of liquidity which was 0.4, 0.36, 0.36, 0.35, and 0.33. In contrast, the decreasing values for cash and investments to total deposits for banking sector in Jordan from Fig. 4 which the values were 71.17%, 70.90%, 69.26%, 66.28%, and 62.11% during 2012–2016.

Fig. 5 presents the trend of net credit facilities to total deposits for banks' sector in Jordan during 2012–2016 which increased from 59.21% in 2012 to 59.41% in 2013 but decreased in 2014 to be 56.92%, after that net credit facilities to total deposits ratio increased to be 58.75% in 2015 and 64.57% in 2016. On the other hand, debt ratios according to Fig. 6 were around eighties as in 2012–2016 at 84.77%, 84.87%, 86.13%, 86.42%, and 85.59%. Finally, Fig. 7 represents profit margin for banks' sector in Jordan during 2012–2016. Hence, profit margin in 2012 was 30.15%, in 2013 was 34.71%, and in 2014 was 29.78%, and then profit margin decreased to be 23.99% and 25.77% during 2015–2016.

From Fig. 8, GDP growth annual in Jordan, (9) inflation rate in Jordan, and (10) unemployment rate in Jordan can be inferred that Jordan faces many economic difficulties such as the decreasing in GDP during 2014–2016 (3.10%, 2.39%, and 2.00%) in a row after the increasing in GDP during 2012–2014 (2.65%, 2.83%, and 3.10%).

In addition, inflation ratios in Jordan during 2012–2016 were 4.52%, 4.83%, 2.89%, then -0.90%, and -0.79% which implied that Jordan faces a deflation because of the negative values for inflation rate. Finally, there is a continuous increase in the unemployment rate as a percentage of total labor force during 2012–2016 because unemployment ratios were 12.20%, 12.60%, 11.90%, 13.10%, and 13.24%.

#### CONCLUSION AND RECOMMENDATION

Profit margin was found as an indicator with an impact on financial performance for banking sector in Jordan which had an impact on ROA. On the other side, there were no impacts from the rest of the microeconomic and macroeconomic indicators on the financial performance for banks' sector in Jordan during the study period which was from 2012 to 2016.

From this point, the study reached to some recommendations such as banks in Jordan are advised to focus and analyze the profit margin during the time and to measure and control ROA ratios yearly. Moreover, the study advised banking sector in Jordan to keep an eye on the rest of the microeconomic and macroeconomic indicators during the long run in case of happening new impacts on the banking financial performance.

Finally, banks in Jordan must take actions and play their real role in solving the economic issues and problems. For instance, reducing the increasing ratios of the unemployment rate by making new jobs

Table 5: ROA Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Significant
	B	Standard error	Beta		
1					
(Constant)	0.020	0.044		0.459	0.678
Profit Margin	0.040	0.002	0.998	26.632	0.000

Dependent Variable: ROA. ROA: Return on asset

Table 6: ROA excluded variables<sup>a</sup>

Model	Beta In	t	Sig.	Partial correlation	Collinearity statistics		
					Tolerance	VIF	Minimum tolerance
1							
Quick ratio	-0.025 <sup>b</sup>	-0.493	0.671	-0.329	0.747	1.339	0.747
CITD	-0.072 <sup>b</sup>	-1.412	0.294	-0.706	0.410	2.437	0.410
NCFTD	0.053 <sup>b</sup>	1.691	0.233	0.767	0.897	1.114	0.897
Debt ratio	-0.027 <sup>b</sup>	-0.388	0.735	-0.265	0.396	2.524	0.396
GDP growth	-0.047 <sup>b</sup>	-0.889	0.468	-0.532	0.546	1.831	0.546
Inflation	-0.036 <sup>b</sup>	-0.300	0.792	-0.208	0.141	7.076	0.141
Unemployment	0.008 <sup>b</sup>	0.149	0.895	0.105	0.660	1.515	0.660

<sup>a</sup>Dependent variable: ROA, <sup>b</sup>Predictors in the Model: (Constant), Profit Margin. ROA: Return on asset

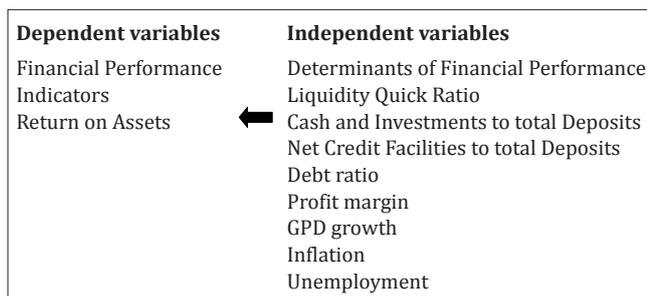


Fig. 1: Research model. Source: The study model had been prepared and developed by the researchers to suit the nature of the study variables

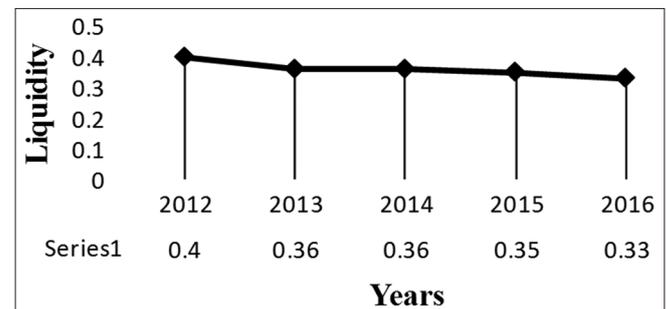


Fig. 3: Liquidity quick ratio for banks' sector in Jordan

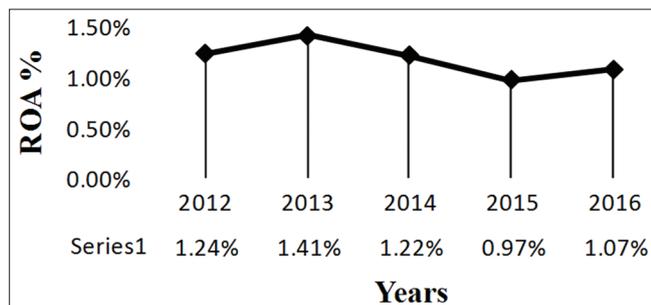


Fig. 2: Return on assets for banks' sector in Jordan

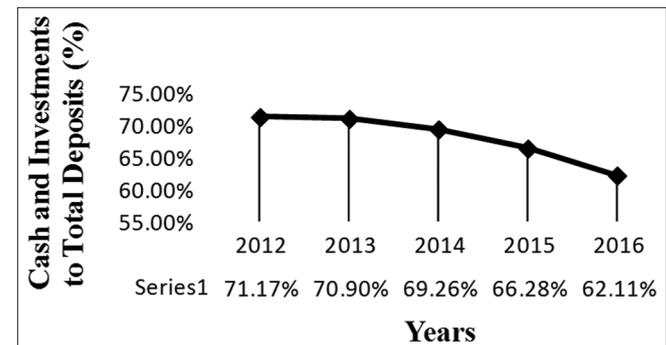


Fig. 4: Cash and investments to total deposits for banks' sector in Jordan

opportunities, stimulating GDP by increasing local production capacity, and facing the deflation in Jordan by increasing the money supply because Jordan faces negative ratios for inflation ratios during 2015–2016.

By comparing the results of this study with a study about a financial performance comparison of foreign versus local banks in Ghana performed by Matthew and Esther [7]. They compared the banks on the various dimensions of performance (determinants). The averages for the various ratios are calculated and compared on charts. The two classifications for the comparison are local banks and foreign banks in Ghana. Local banks are those banks with majority of their shareholders being Ghanaians, while foreign banks are those with majority of their shareholders being foreigners.

Their study concluded that, on the comparisons made, the following conclusions are made between local and foreign banks in Ghana. On both ROA and ROE, local banks in Ghana are doing better than foreign banks, foreign banks have a higher capital adequacy ratio than local banks, Foreign banks have more quality assets (loans) than local banks do in Ghana, the management of local banks is more efficient than that of foreign banks, foreign banks have more earnings power in terms of net interest margin than local banks, foreign banks are more liquid in Ghana than the local banks, and foreign banks are usually larger in Ghana than the local banks. This study focused on the financial performance of the commercial banks in Jordan, comparing that with the financial performance in investment banking sector in Pakistan. That study concluded that each investment bank had different conclusions based

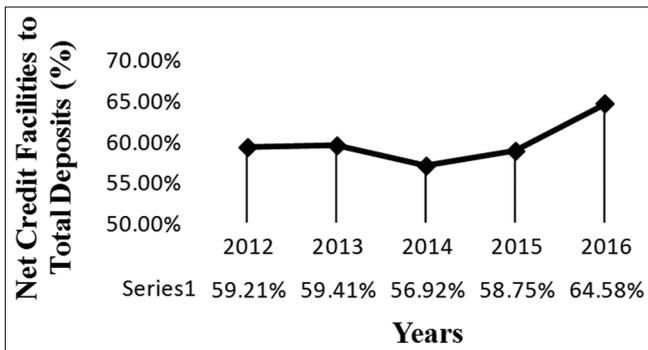


Fig. 5: Net credit facilities to total deposits for banks' sector in Jordan

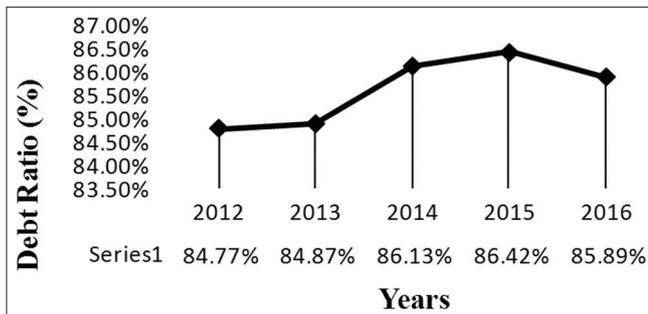


Fig. 6: Debt ratio for banks' sector in Jordan

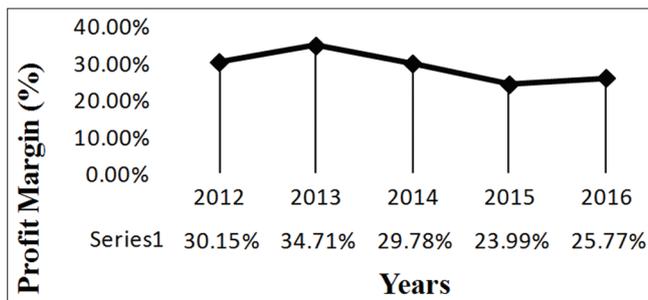


Fig. 7: Profit margin for banks' sector in Jordan

on each financial ratio related to efficiency or profitability ratios, liquidity ratio, capital or leverage ratio, and financial measures. After that, that study gave ranks for banks included in the study sample [8].

Furthermore, the results of our study differ from study's results for Alper and Anbar [2], in which they examined the bank-specific and macroeconomic determinants of the banks' profitability in Turkey over the period from 2002 to 2010. Banking profitability was measured by ROA and ROE as a function of bank-specific and macroeconomic determinants. Using a balanced panel data set, the results show that asset size and non-interest income have a positive and significant effect on bank profitability. However, size of credit portfolio and loans under follow-up had negative and significant impact on bank profitability. With regard to macroeconomic variables, only the real interest rate affects the performance of banks positively. These results suggest that banks can improve their profitability through increasing bank size and non-interest income and decreasing credit-to-assets ratio. In addition, higher real interest rate can lead to higher bank profitability.

**AUTHOR'S CONTRIBUTION**

- Sari Malahim is the chief author, supervised the work, and contributes in writing all parts.

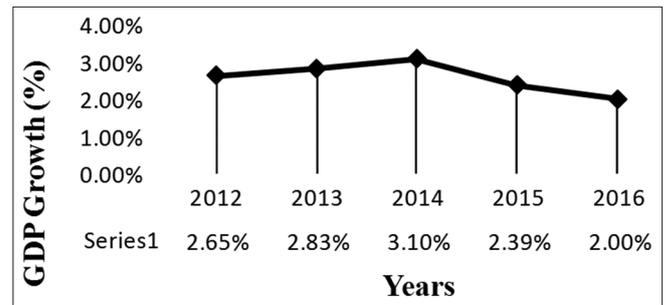


Fig. 8: Gross domestic product growth annual in Jordan

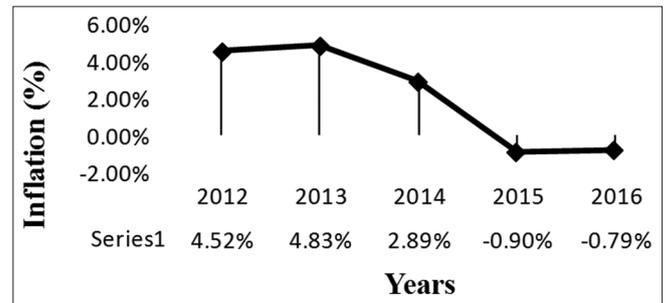


Fig. 9: Inflation rate in Jordan

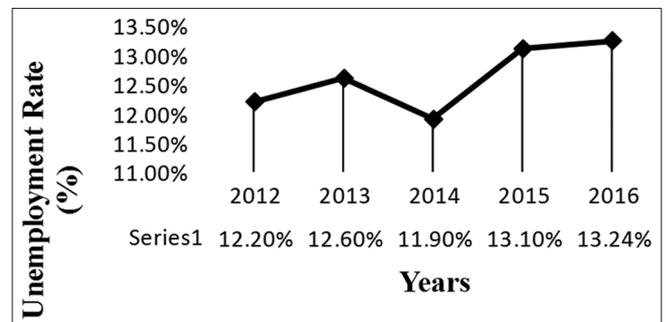


Fig. 10: Unemployment rate in Jordan

- Abdullah Yusri Al Khatib was responsible for writing and results, discussion, language reviewing, and editing.

**CONFLICTS OF INTEREST**

The authors declared that they have no conflicts of interest.

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