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Off-Balance Items and Their Impact on the Financial Performance Standards of the Banks: An Empirical Study on the Commercial Banks of Jordan

Hanan Al-Awawdeh[a]; Saad Al-Sakini[a],*

[a]Assistant Professor, Department of Accounting, Isra University Amman, Jordan.
[b]Associate Professor, Department of Accounting, Isra University Amman, Jordan.
*Corresponding author.

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Abstract

The purpose of this study is to test the effect of off-balance items on the Jordanian commercial banks performance criteria. The test is based on a sample of 13 Jordanian commercial banks listed on the stock exchange of Amman during the period 2009-2016.

The depend variables of the study included the financial performance standards represented in of rate of return on assets (ROA) and return on the equity (ROE). The independent variables included the percentage of off-balance items to the total assets, in addition to three controller variables; namely credit facilities, equity ratio and the size of the bank.

The results of the study showed that the volume of Jordanian commercial banks off-balance items are high as they constitute more than one-fifth of the total assets. The results of the regression analysis showed that the off-balance items have a positive effect with statisticalsignificance on the rate of return on assets and the ROE. The size of the bank and ratio of the credit facilities granted by the banks also have is a positive and statistical significance impact on the rate of return on assets and the ROE. ROE ration has a positive impact on the assets, while ROE ratio has not impact on the rate of return of equity.

The study recommended that the Jordanian commercial banks must seek to set out limits and certain ceilings for the levels of off-balance items. The study also recommended the regulatory authorities to issue instructions and circulars governing the work of off-balance items and determines the allocations the banks must reserve to face any case where these items have to be paid.

Key words: Off-balance items; Commercial banks; The financial performance of the banks

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INTRODUCTION

Off-balance items include the potential obligations that may arise from the bank issuance bank bonds letters, bail bonds, letters of credit, and unutilizedreceivables of current account limits or dealing with financial derivatives (Abu Rahma, 2007, p.5). Abdul Malek (2006, p.30) defined off-balance items as contractual commitments which do not currently shown within the assets or commitments in the bank balance sheets, but may be converted into assets or liabilities shown in the future bank budget, thus may affect the overall value of the bank.

The importance of off-balance items for the banks increased in recent years around the world due to the financial liberalization and technological development. This led to increasing competitive pressures the banks encountered, which in turn led to lower interest margins charged by the banks for traditional banking products; such all kinds of loans. The trend of the regulatory authorities to enhance the capital rules of banks and increasing capital adequacy made the banks to search non-traditional ways of funding which contributed to the increased interest of banks in non-balance items. The non-balance items achieve good returns to the banks without requiring the banks to allocate assets against that, as well as they also help banks to avoid regulatory constraints due to limited or lack of instructions, orders and circulars related to non-balance items compared to the items appear in the balance sheet; such as credit facilities (Lozano-Vivas & Pasiouras, 2014).

Despite the significant benefits that earned by the bank by using off-balance items, it also includes serious dangerous dimensions on the bank in case they have been converted to real potential obligations. So, these items contain many risks; such as liquidity, market, operational and credential risks. The banking and exchange rate risks are increasing with the growing off-balance items (Aktana et al., 2013).

In this connection, reference is made to theoff-balance items have a relatively low concern by regulatory authorities compared to the level of attention paid to the items appeared in the budget, which is a matter that requires to study and analyze the off-balance items, recognize their size and development, as well as to know their reflection on the performance of commercial banks in Jordan.

Based on the foregoing, this study will high light the off-balance items in the commercial banks in Jordan, to conduct a research on the impact of these items and their reflection on the performance of banks during the period (2009-2016).

1. THE RESEARCH IMPORTANCE AND PROBLEM

This research is important because the off-balance items levels in the Jordanian commercial banks are growing, which usually are in the form of unutilized limits of credits, bank securities, bank acceptance or letter of credits. Therefore, it is important to high light this aspect and sees to what extent such items may affect the performance of banks.

On the other hand, the regulators; such as the Central Bank of Jordan, often focus on the items appear in the balance sheets of the banks. There are many instructions and a circular governing these items in such a form makes them consistent with the regulatory instructions, while less intention and focus are paid to off-balance items by the regulators due to probabilistic nature of such items. This is obvious in the lack or absence of regulatory and organizational rules that govern them. Accordingly, it is important to address off-balance items by researches and studies to determine their size, development and potential effects on the financial statements of banks, in addition to know the final impact on the performance of commercial banks in Jordan.

Despite many previous studies conducted in many countries to test the impact of off-balance activities on the performance of banks, but studies conducted on this subject in the Jordanian market are few and need more researches to find out the real relationship between off-balance items and performance.

Through the above, it can be said that the current study seeks to answer the following questions:

a) What are the size, development and importance of the off-balance items in the Jordanian commercial banks during the period (2009-2016)?
b) What is the impact of off-balance items on performance standards of the Jordanian commercial banks during (2009-2016)?

2. OBJECTIVES

This study aims to determine the impact of the off-balance items in the commercial banks of on the standards of performance of the commercial banks in Jordan during (2009-2016). The study's objectives can be detailed as follows:

a) Identify the size, development, and importance of the off-balance items in the commercial banks in Jordan during (2009-2016).
b) Identify the impact of off-balance items on standards of performance of the commercial banks in Jordan during (2009-2016).

3. HYPOTHESES

a) HO 1: There is no statistical significant impact of the off-balance items on the rate of returns on assets the (ROA) of the Jordaniancommercial banks.
b) H0 2: There is no statistical significant impact of the off-balance items (OBS) on the rate of return on equity (ROE) of the Jordanian commercial banks.

4. THE THEORETICAL ASPECT OF THE RESEARCH

4.1 The Concept and Characteristics of Off-balance Items and Justification of their Use and Consequences

The researchers made various definitions to the off-balance items; Sivaramakrishnan and Thoman (2003, p.4) defined the off-balance items as the process of financing the liabilities to avoid the express acknowledge of them in the budget, aiming to maintain the debt ratio to equity, as well as to maintain a high bank credential classification. Abdel Malek (2006, p.30) defined them as contractual commitments do not represent a direct monetary obligation on banks but have a direct impact on the overall value of the banks. Abu Rahma (2007, p.5) defined them as incidental traditional commitments arising from issuance of letters of guarantee for loans, to work performance or to documentary credits and other things in addition to the obligations arising from dealing in derivatives contracts.

Zhang (2009, p.4) defined off-balance items as the financial activities that provide financing sources to the enterprise without stating the financial obligations in the financial statements. Ketlu and Hazouri, (2013, p.292) defined them as potential assets and liabilities which effect in future budgeting, as well as they effect the liquidity, profitability and security of the bank. It is a promise or commitment to grant a credit, which is in turn forms an emergency commitment does not appear in the budget of the Bank, and for this reason it is referred to as off-balance items.

Basel Committee on banking supervision also defined off-balance items as financial contracts in an asset value or a particular indicator, where it is allowed to transfer risks to another party (BCBS, 1994).

Through the previous definitions, it can be noticed that there is general agreement among researchers about the major characteristics of off-balance items, including the disappearance of such items in the financial statements, but they may appear in the accompanying explanations to those statements. Those items include revenues and at the same time imply many risks. Istafanus (2012, p.3) pointed out that these items are one of creative accounting methods that can be used for the purpose of misleading the users of financial statements.

The researchers proposed that there are many justifications push the banks to use off-balance items, which can be categorized into five main motives (al-Shammari, 2000, pp.26-38):

a) **Economic Motives:**include banks look for new financing means and instruments to mitigate risks they face and to secure a source of income (Hazeen, 2003, p.245).
b) **Regulatory Motives:** Off-balance itemsare a method to escape and get past the regulatory requirements and limitations imposed on items within the budget of the banks by the supervisory and regulatory authorities.
c) **Competition Motives:** high competition with other banks and financial institutions pushed the banks to look for new sources of income that do not face much competition (Hammad, 2005, p.467).
d) **Technology Motives:** the development of communications and technology contribute to the increase of international business transactions, leading to the increasing bank demands for off-balance items; such as documentary credits (Casy & Girardone, 2005, p.1).
e) **Accounting and Financial Motives:** Non-recognition of the off-balance items contribute to improving debt ratio and reduction of the cost of borrowing and take advantage of tax benefits, in addition to the benefits associated with the market value of the share. The use of off-balance items assists in profit management and manipulate the financial statements of the company as a result of shortcomings in the accounting standards in terms of recognition, measurement and accounting disclosure of off-balanceitems, which have negative effects on the quality of accounting information.

Many researchers pointed out that the use of non-balance items involve a range of effects which can be summarized as follows (Sa'ad Addin, 2010, p.272):

a) **Low quality of financial reports:** Because these items do not appear in the budget will lead to a lack of financial reports for this important information and therefore the inability to sincere expression on the Bank's financial position, which contributes to a reduction in financial reportsquality.
b) **Weakness of the financial market efficiency:** The low quality of financial reports contributes to the reduction of money market efficiency because the share will be unable to reflect all the information related to the Bank.
c) **Exposing banks to financial problems and crises:** Manystudies have indicated that the increased deal with non-balance items, especially derivatives, will contribute to the increase of exposure to financial crises. Weak regulatory authorities control on the non-balance items will increase the exposure of the banks to risks, which, sometimes, may cause its collapse and failure.
d) **Increased creative accounting practice:** Whereasthe use of non-balance items by the banks will allow the Administration to use creative accounting methods in deliberate influence on the quality of financial reports and capital market efficiency (Ibid.).

4.2 Off-Balance Items in the Accounting and Organizational Criteria

Many international standards and regulatory legislation discussed the off-balance items subject. International Accounting Standard (IAS) No.(37) "Provisions, Contingent Liabilities and Contingent Assets" to ensure the application of appropriate recognition standards and bases on the provisions and contingent liabilities and contingent assets. This criterion defined the contingent provisions and liabilities as any asset or liability may arise from prior events, but its occurrence will be confirmed only by the occurrence or non-occurrence of one or more future event beyond the control of the enterprise.

This standard points out that the enterprise should not recognize a potential liability or potential asset, but must disclose such potential asset or potential liability in case there is a possibility of flow of sources issued or received.

The International Financial Reporting Standard (7) "Financial Instruments: Disclosures" which calls the enterprises to provide disclosures in their financial statements that enable users of financial statements of such enterprises to assess the importance of financial instruments in respect of the financial position of the enterprise, its performance and the nature and extent of risks may arise from the financial instruments and how the enterprise manages these risks. Thescope of application of this standard includes all types of financial instruments, derivatives, the registered (recognized) and unregistered (unrecognized) of the financial instruments; such as the commitments of granting loans.

In respect of the regulatory requirements relating to off-balance items, it is referred to the circular of the Central Bank of Jordan No.(10/1/11141) dated 12/11/2007 to license banks by which the Central Bank revised the existing forms of the financial statements prepared for publication to be in consistent with the International Financial Reporting Standards 7. Clause No (53-A) - credit risks, stating that it is necessary to include the quantitative credit risk disclosures in the credit risk exposuresstatement, including outside the financial position items which include bails, credits, acceptances, and ceilings of unutilized facilities.

5. PREVIOUS STUDIES

Many past studies addressed the subject of off-balanceitems and their impact on the various aspects of banking process, including performance. Casu and Girardone (2004) conducted a study of analyzing the importance of including off-balance sheet (OBS) in banking outputs definition when assessing the change in productivity factors indicators, based on a sample of more than 2000 banks in European Union countries during the period 1994-2000. The study concluded that off-balanceitems are increasingly important; and not taken into account would lead to biased results in the efficiency analysis models. The study also found that the inclusion of the off-balanceitems to the model increase the estimated productivity levels, and the inclusion of non-balance items has greater effect on the technological change compared to its impact on the technical efficiency.

The study conducted by Abdul Malek (2006) examined the role of off-balanceitems in the profitability of commercial banks of Jordan during the period 1990-2002. The study indicated that the volume of non-balance items in the Jordanian commercial banks has grown more than four times during the study period. The study also found a relationship between non-balance items and the profitability of commercial banks during the study period, except the interest rate margin, which had a positive relationship with off-balanceitems.

The study conducted by (Al-Obeidan, 2006) aimed to make a quantitative analysis to the relationship between the level of off-balance banks activity and the economic efficiency of commercial banks in Kuwait during the period 1993-2000. The study concluded that increased banks off-balance sheet activity contributes to high technical efficiency, which includes getting a highest output level using the least possible inputs, but it reduces the overall economic efficiency, which includes the interaction between technical efficiency, and distributive efficiency and the size efficiency.

The purpose of the study conducted by (Karim & Gee, 2007) was to test the effect of off-balance activities of the local commercial banks in Malaysia on the performance of these banks. The study found that the relationship between off-balance activities, interest rate risks, irregular risks, and overall risk of the banks has no statistical significance. The study also indicated that the market risks are effected heavily by the off-balance activities. The study also found that returns of the banks are negatively correlated with off-balance activities, in addition to lack of any statistical significance relationship between the off-balance activities and the return on equity, liabilities or solvency ratio.

The study of Calmès and Théoret (2009) aimed to test the impact of off-balance activities on the budget between the returns and risks of banks, through a sample of eight banks in Canada during the period 1988-2007. The outputs of the study showed that balance between the returns of the bank shares and their risks showed a structural change in 1997. It also found that during the period (1997-2007) the non-interest income resulting from the off-balance activities has no any negative impact on the returns of the bank shares, while during the period (1988-1996) the volatility in stock returns had any significant impact on the returns of the banks, risk premium, or the pricing of risks associated with off-balance activities risks.

The study of Mikati (2012) aimed to test the extent of the commercial American banks involves in the off-balance sheet activities and the potential implications of such involvement in exposure to banking risks and bank failures. Based on a sample of American commercial banks during the period 2004-2010, the study found that the off-balance sheet activities have different impact on banking risks. While terms of credit alternatives are associated with better performance of the bank, the financial derivatives contracts, including those held for non-commercial purposes, are associated with increased exposure to risk.

The purpose of a study conducted by Astafanus (2012) was to test the most important off-balance items to determine the main accounting motivations for using these items in Egyptian commercial banks, identify shortcomings American, international and Egyptian Accounting Standards in addressing these items, as well as to test the impact on the quality and appropriateness of accounting information, and the extent to which these items contribute to global financial crises. The study found that the use of off-balanceitems leads to the existence of non-understandable and incomparable financial statement by users. The study also found that there were shortcomings in the American, international and Egyptian Accounting Standardsin terms of providing high quality information on these items, in addition to a correlation between the occurrence of the global financial crisis and the shortcomings the method of presentation and disclosure of off-balance items.

The study of Buckova (2012) examined the off-balance items in the Czech banking sector and the management of credit risks arising from these items. The study showed that off-balanceitems are an important part of the banking business in Czech Republic where their value exceeded the value of the budget several times. It also indicated that there are many risks resulting from the off-balanceitems, the most important are the credit risks. The study concluded that banks have an appropriate structure of off-balanceitems and a good diversification in economic sectors which they deal with off-balance items. The study also found that the banks have adequate allocations to address the expected losses from off-balanceitems, as well as the Czech banks manage credit risks arising from off-balanceitems well.

The study of Katlo and Hazzouri (2013) aimed to test the impact of credit risks on the off-balance items by applying to Arab Bank during 1996-2010. Relying on descriptive statistics, correlation analysis and regression, the study found that the risks of interest rate has a negative impact with statisticalsignificance on off-balance items, which included documentary credits, bank guarantees and acceptances, while the inflation and non-operational credit facilities risks have an impact with positive statistical significance on the off-balance items.

The study of Aktana et al. (2013) aimed to examine the impact of off-balanceitems on the performance of the banks listed in the Istanbul Stock Exchange (ISE) during the period 2001-2008. The study found that the banking risks of the bank, as well as the foreign exchange rate risks are positively linked to off-balanceitems, which means that off-balanceitems increase the exposure of the banks in Turkey to banking and exchange rate risks. The study indicated that this positive relationship may serve as a warning to the banks regarding their increasing trend to use off-balanceitems. The results of the study also indicated that off-balance items improve the market returns of the bank shares, but may have a negative effect on the rate of return on equity. The study also found that there is no impact with statistical significance to off-balance items on liability ratio or liquidity ratio.

The study of Ma'n et al. (2015) aimed to test the income determinants of off-balanceitems by adoption of a set of variables related to the Bank and in macroeconomics, applied to a sample of Islamic and traditional banks in Malaysiaduring the period 2002-2013. The results of the study showed that the determinants of off-balanceitems in the Malaysian Islamic banks are the size of the bank, profitability of the Bank, and interest rate, while the determinants of the off-balance items in the traditional banks are the size of the bank, profitability of the bank and real gross domestic product (GDP).

The study conducted by Middi (2016) aimed to identify the change in the exposure of Indian commercial banks to the off-balance items, measuring changes in assets of those banks, in addition to measuring changes in other income levels. the study found that theexposure to off-balance items has reached high levels, as the size of the total exposure to off-balance items in the Indian banking sector is larger than the total balance sheet assets. The study also found that the risks associated with off-balanceitems are very high and likely to cause bankruptcy of the banks.

Through the review of previous studies which discussed off-balanceitems, it is noted that the studies on the impact of the off-balance items on the financial performance are rare. Most of the previous studies focused on the impact of the off-balanceitems on the efficiency of banks or risks the bank face, which gives the current study a great importance to add to previous studies.

6. DATA AND METHODOLOGY

6.1 Study Community and Sample

Thepopulation of this study consists of all Jordanian commercial banks listed on the stock exchange in Amman at the end of 2016, which are 13 banks (Association of Banks in Jordan, 2016 Annual Report). The study sample is the entire community of the study, which included all the commercial banks in Jordan, which are 13, during the period 2009- 2016. The data of this study were collected from the annual reports of the local banks in the sample of this study.

6.2 Study Model

Based on the previous studies discussed the effect of the off-balance items on the banks performance; such as Aktana et al. (2013), Karim and Gee (2007), De Jonghe et al. (2007, p.31) which found the off-balance items effect on the indicators of banks performance. The study model can be formulated as follows:

$$\mathrm{PERF}_{it}=\alpha+\beta_1 OBS_{it}+\beta_2 LR_{it}+\beta_3\, EQ_{it}+\beta_4\mathrm{BSIZE}_{it}+\varepsilon_{it}\,. \quad (1)$$

Where PERF_{it} represents the measure of the bank performance (i) during the period (t), which will be measured through the rate of return on OBS_{it}. (OBS_{it}) is the ratio of off-balance items to the total assets of the bank (i) during the period (t). (LR_{it}) is the ratio of direct credit facilities to total bank assets (i) during the period (t), (EQit), is the ratio of equity to the total assets of the bank (i) during the period (t). (BSIZit) is the natural logarithm of the size of bank (i) assets during the period (t).

Through the previous model, two models can be extracted to the measure of off-balance item effect on the performance indicators as follows:

$$ROA_{it}=\alpha+\beta_1 OBS_{it}+\beta_2\, LR_{it}+\beta_3 EQ_{it}+\beta_4 \mathrm{BSIZE}_{it}+\varepsilon_{it}\,, \quad (2)$$

$$ROE_{it}=\alpha+\beta_1 OBS_{it}+\beta_2 LR_{it}+\beta_3 EQ_{it}+\beta_4 \mathrm{BSIZE}_{it}+\varepsilon_{it}\,. \quad (3)$$

Where (ROA_{it}) is the rate of return on assets for the Bank (i) duringthe period (t), and (ROE_{it}) is the rate of return on equity for the bank (i) during the period (t).

7. MEASUREMENT OF THE STUDY VARIABLES

To measure the financial performance of Jordanian commercial banks, this study will use two measures of performance; the rate of return on assets (ROA) and the return on equity (ROE). The rate of returns on asset is important measure of efficiency of the bank management, and it can be calculated by dividing the net profits on the total assets of the bank. The rate of return on equity (ROE) is the measure of Bank's success in using equity, and it is measured by dividing the net profit on the total equity of the bank (Dickie, 2006).

For the independent and control variables, this study uses one independent variable and three control variables. Whereas the independent variable is the ratio of off-balance items (OBS) to the total assets, which will be measured by dividing the off-balance items on the total assets of the bank (Obeidan, 2006).

Control variables include three key variables, namely the size of the bank, the ratio of direct credit facilities, and the percentage of ownership. Whereas the size of the Bank (BSIZE) is used here to take into account of the differences between the sizes of the banks and their impact on their financial performance. It will be measured by the calculating the normal logarithm of the bank's assets size (Karim & Gee, 2007). The ratio of equity is the total equity divided on the total bank assets. The high ratio indicates the bank efficiency and its financial suitability, thus the improve the bank performance (Staikouras et al., 2007). Finally, the ratio of direct credit facilities to total assets (LR) has been used because the direct credit facilities is deemed one of the important funds employments of the commercial banks, thus it has great effect on the bank performance. IT will be measured by dividing the direct credit facilities granted by the bank on the total bank assets (Aktana et al., 2013).

8. RESULTS OF THE STATISTICAL ANALYSIS

8.1 Descriptive Atatistics

Table 1 describes the descriptive statistics of the study variables during the period (2009-2016). It can be seen from this table that Jordanian commercial banks were able to maintain good profitability during the study period, as the average rate of return on assets during the study period was about 1.1%, while the average return on equity was 10.5%. Meanwhile, the highest value and lowest value statistics and standard deviation indicate a clear discrepancy between the performance of the banks.

The average proportion of off-balanceitems (OBS) to total assets is nearly 21.4%, which reflects higher volume of the off-balance items than the budgetsin the Jordanian commercial banks. This indicates that those banks face significant risks if they converted such items from potential items into real items. Off-balanceitems percentage ranged from 8.3% to 49.8%, indicating a large discrepancy between the Jordanian commercial banks in terms of the banks policy of investing the off-balanceitems.

Table 1
Descriptive Statistics to Study Variables (2009-2016)

	ROA	ROE	OBS	LOAN	EQUITY	SIZE
Mean	0.0112	0.1052	0.2142	0.4895	0.1392	9.2952
Median	0.0107	0.0994	0.1954	0.4692	0.1322	9.2882
Maximum	0.0187	0.1695	0.4978	0.5984	0.2047	10.8977
Minimum	-0.0006	-0.0140	0.0826	0.3883	0.0980	8.7385
Std. dev.	0.0368	0.0342	0.0975	0.0725	0.0247	0.4558
Skewness	-0.2876	-0.2133	0.4601	0.0766	-0.4578	0.2587
Kurtosis	3.1390	3.0984	3.1744	2.3192	2.3619	2.4807
Jarque-Bera	1.6801	1.5174	5.0087	1.0956	2.8023	1.2091
Probability	0.4317	0.4758	0.0817	0.5782	0.2463	0.5463
Observations	104	104	104	104	104	104
Cross sections	13.	13.	13.	13.	13.	13.

For the control variables, it can be noticed that the average size of commercial banks during the study period was around 9.295 logarithm (or equivalent 1973.3 million dinars), with apparent disparity between the sizes of these banks. The average percentage of facilities granted by commercial banks of Jordan is about 49%, with convergence in this percentage between those banks, indicating the homogeneity of the direct financial investments level among these banks. The percentage of equity was about 13.9% on average in the Jordanian commercial banks during the study period.

8.2 Regression Analysis Results

This section is designed to test the impact of off-balanceitems and other control variables on the financial performance measures of the commercial banks in Jordan, by applying on the data of a sample consisting of 13 commercial banks in Jordan listed on the stock exchange of Amman during the period 2009-2016. Pooled Data Regression will be used because it fits the nature of the data used in this study. This method is used if the data contain a time series and a cross-sectoral.

Table 2 shows the results of the regression analysis to the two models for the study. This table shows that there is a positive impact with statistical significance for the off-balance items on two measurements of financial performance, which include the rate of return on assets and the rate of return on equity. This result is consistent with what the expectation because the major objective of the banks to use those items is to make profits through commissions charged by banks, so it is normal to get better rates of return on assets and return on equity. This result is in contrary to the findings of the study conducted by (Aktana et al., 2013), which showed a negative effect for off-balance items on the performance.

Table 2
Results of Regression Analysis of the Two Study Models

Variables	Coefficients	
	ROA model	ROE model
Constant	-0.1327 (-2.0065) *	-0.1833 (-2.7495) *
OBS	0.2138 (11.1512)***	0.2348 (7.8775) *
LR	0.1172 (2.55548)**	0.1582 (3.4027) *
EQ	0.0998 (2.8731)***	-0.0857 (-1.4385)
BSIZE	0.02975 (4.9513)***	0.0314 (5.6602) *
Regression summary		
R-squared	0.6875	0.7434
Adjusted R-squared	0.6605	0.7228
Durbin-Watson stat	1.8957	1.9331
F-statistic	63.3218	75.4279
Prob(F-statistic)	0.0000	0.0000

Note. Values in brackets expresst-statistic.
***,** and * indicate that the coefficient is important at the levels 1%, 5% and 10% respectively.

Regression analysis was implemented by usingWhite Heteroscedasticity standard errors & covariance.

There is a positive effect with statistical significance for the credit facilities granted by the banks on average of returns on assets (ROA) and the rate of return on equity (ROE). This is also in line with what is expected, because the high credit facilities, which are of the most important financial investments for the bank, will increase the size of interest charged by banks on those facilities, which increases the profits of banks and improve financial performance indicators. This result is also consistent with the findings of previous studies such as the study of (Ramadan et al., 2011).

The results also indicate the existence of positive effect with statistical significance for the rate of returns on assets, while the ratio of equity has no impact with statistical significance on the returns to the equity. This reflects the fact that the high ratio of equity increases the sources of bank funds because it strengthens the bank and its ability to attract deposits and funds with less costs, which in turn improves the profits of the bank and increases the rate of return on assets. For the non-effect of this variable on the rate of return on equity, it may result from the proximity of the increase of equity ratio with the increase of ratio of the bank profits which leads to the improve of return on equity despite the increase of bank's profits.

Finally, the results indicated the size of the bank has a positive effect with statistical significance on the two measures of the financial performance of the banks, which means that larger banks achieve higher profitability, and thus better performance rates than of small banks. This result can be explained by depending on the ability of large banks to exploit the size of economies for the purpose of reducing costs, which improves profitability and increasing rates of return on assets and equity.

Adjusted *R*-squared to the first model of the study (ROA) is around 66%, which mean that the independent and control variables are able to explain two-thirds of the change in the dependent variable, while adjusted R-squared for the second model (ROE) is about 72%.

As a statistical value of (Durbin-Watson) for serial correlation was close to the value (2) in both models, which reflects the non-existence of any problem with serial correlation in the values of the variables.

The (*F*) statistics and its level of significance were less than 5% in both models, which indicate Goodness of (Fit) and the validity of the independent and control variables to forecast the values of the dependent variable.

CONCLUSION AND RECOMMENDATIONS

The purpose of this study is to test the effect of off-balanceitems and other control variables on the performance measures of Jordanian commercial banks during the period 2009-2016.

The results of the study showed that Jordanian commercial banks managed to maintain good profitability levels during the study period. The results also showed that the volume of off-balance items are considered high in Jordanian commercial banks and it constitutes more than one fifth of the total assets. The ratio of facilities granted by Jordanian commercial banks constitute about half their assets. Jordanian commercial banks are characterized by strong capital bases due to the high percentage of equity ratio.

The results of the regression analysis showed a positive effect with statistical significance of the off-balance items on the rate of return on assets and the rate of return on the equity, which emphasizes the importance of these items and their role in enhancing the profitability of the banks. However, the significant rise in the proportion of off-balance items involves significant caveats to the Jordanian commercial banks, particularly if these items are converted from possible items turned into actual items, as this may affect the liquidity of the bank and may increase the risks. The results also showed that the size of the bank and credit facilities ratio granted by the banks have a positive effect with statistical significance on the rate of return on assets and the rate of return on equity. The results have confirmed the positive effect with statistical significance of the ratio of equity on the rate of return on assets, while there is no effect with statistical significance to the ratio of equity on the rate of equity.

Based on the results, this study recommends that the Jordanian commercial banks should seek to develop certain ceilings for levels of off-balanceitems, without exaggerating the size of these items, because of the serious repercussions on the bank in case of occurrence. The study also recommends that regulators should issue instructions and circulars governing the execution of the off-balance items and determine the allocations the banks must keep to counter any cases requiring the payment of those items. This study also recommends to conduct further studies on the size of the off-balance items which actually have been converted into off-balance items, in addition to exploring the effect of the off-balance items on the bank liquidity and risks faced.

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