

# The Impact of Liquidity on Jordanian Banks Profitability through Return on Assets

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## Abstract

Every stakeholder has interest in the liquidity situation of a company. Suppliers of goods will review the liquidity of the company before selling goods on credit. Employees should also be worried about the company's liquidity to know whether the company can cover its employee related obligations—salary, pension, etc. So, a company needs to keep sufficient liquidity so that liquidity extremely affects profits of which some part that will be divided to shareholders. Liquidity and profitability are closely related because one increases the other decreases. Bank profitability is the ability of a bank to generate revenue in excess of cost, in relation to the bank's capital base. A profitable banking sector is better able to resist negative impact and share in to the stability of the financial system. This study sought to find out whether liquidity through quick ratio has significant impact on Jordanian banks profitability through return on asset (ROA). The study used the 2005-2011 financial reports of 15 Jordanian banks listed at Amman Stock Exchange (ASE). The study revealed that there is significant impact of independent variable quick ratio on dependent variable return on asset (ROA). That means profitability through return on assets (ROA) in Jordanian banks is significantly influenced by liquidity through quick ratio.

**Keywords:** Return on Asset (ROA), Quick ratio, Amman Stock Exchange (ASE).

## 1. Introduction

Equity investors are concerned with the firm's ability to generate, maintain, and increase income. Profitability can be measured in many differing but interrelated dimensions. First there is the relationship of a firm's profits to revenue, that is, the residual return on the firm per sales dollar. Another measure, return on investment (ROI), relates profits to the investment required to generate them. Analysis of income is of vital concern to stock holders because they derive revenue in the form of dividends. Further, increased profits can cause an increase in market price, leading to capital gains.

An company's ability to sustain its short-term debt-paying ability is important to all users of financial statements. If the company cannot keep a long-term debt-paying ability, nor will it able to satisfy its stockholders. Even a very profitable company will find itself bankrupt if it fails to meet its obligations to short-term creditors. The ability to pay current obligations when they due is also related to the cash-generating ability of the company. Analyzing the short-term debt-paying ability of the company, reveal a close relationship between the current assets and the current liabilities. Generally, the current liabilities will be paid with cash generated from the current assets. The profitability of the firm does not determine the short-term debt-paying ability. In other words, using accrual accounting, the company may report very high profits but may not have the ability to pay its current bills because it lacks available funds. If the entity reports a loss, it may still be able to pay short-term obligations.

The Liquidity contra Profitability Principle, there is a differentiation between liquidity and profitability; gaining more of one ordinarily means concede some of the other. The liquidity as a determinant of profitability is similar to that considered in research on bank profitability (Bourke, 1989; Molyneux and Thornton, 1992; Williams, et al, 1994), which classified as management controllable internal determinants. In this study we will try to examine whether the liquidity through quick ratio has significant impact on Jordanian banks profitability through return on asset (ROA).

## Literature Review

The relationship between the liquidity and the profitability of banks listed on Ghana Stock Exchange is presented by Lartey V., et al. (2013) study. Seven out of the nine listed banks were involved in the study. The study was descriptive in nature. It used the longitudinal time dimension, specifically, the panel method. Document analysis was the main research procedure used to collect secondary data for the study. The financial reports of the seven listed banks were studied and relevant liquidity and profitability ratios were computed. The trend in liquidity and profitability were determined by the use of time series analysis. The main liquidity ratio was regressed on the profitability ratio. It was revealed that for the period 2005-2010, both the liquidity and the profitability were dropping. It was also revealed that there was a very weak positive relationship between the liquidity and the profitability of the listed banks in Ghana.

The effect of bank capital structure and liquidity on profitability using Nigerian data during the period from 1980 to 2006 studied is presented by Uremadu S. (2012), The data were analyzed using descriptive statistics and the auto-regressive distributed lag (ADL) model. The study practised data on an OLS methodology that incorporated unit root tests for stationary and co-integration. The study found a positive impact of cash reserve ratio, liquidity ratio and corporate income tax; and a negative effect of bank credits to the domestic economy, savings deposit rate, gross national savings (proxy for deposits with the central bank), balances with the central bank, inflation rate and foreign private investments, on banking system profits. They equally noticed that liquidity ratio drive banks' profits in Nigeria, closely followed by balances with the central bank and then, gross national savings and foreign private investments, followed case in that order.

The influence of liquid asset holdings on Iranian banks profitability is presented by Shahchera M. (2012) study by using the Generalized Method of Moment (GMM), this study analyzed the profitability of listed banks using unbalanced panel data for the period 2002-2009, and used the liquidity asset and liquidity asset-square for estimating liquid asset and profitability relationship. The estimated relationship between liquid assets and bank profitability is as predictable. Coefficients for the liquid assets ratio, its square, business cycle, regulation and its product of interaction business cycle and regulation are all statistically significant. The study found evidence of a non-linear relationship between profitability and liquid asset holdings. An substantial result of this study is that the business cycle significantly influence bank profits. The coefficient of regulation is negative and significant. Therefore if regulators minimize the constraints imposed on banks, banks obtain profit.

The point to which effective liquidity management impacts profitability in commercial banks and how commercial banks can stimulate their liquidity and profitability situation is presented by Adebayo O. et al. (2011) study by using quantitative methods of research. Many findings were reaching through the analysis of both the structured and unstructured questionnaire on the management of banks and the financial reports of the tested banks. The data obtained from the Primary and Secondary sources were analyzed through collection, sorting and grouping of the data in tables of percentages and frequency distribution. The hypothesis was statistically tested through Pearson correlation data analysis. Findings indicated that there is significant relationship between liquidity and profitability. That means profitability in commercial banks is significantly influenced by liquidity and vice versa. The study concluded that for the prosperity of operations and survival, commercial banks should not expose efficient and effective liquidity management and that both illiquidity and excess liquidity are "financial diseases" that can simply wear out the profit rule of a bank as they affect banks in order to arrive high profitability level.

The relationship between liquidity and profitability is presented by Saleem Q., et al. (2011). The results revealed that there is a significant impact of only liquid ratio on ROA while insignificant on ROE and ROI; the results also revealed that ROE is no significant effected by three ratios current ratio, quick ratio and liquid ratio while ROI is greatly affected by current ratios, quick ratios and liquid ratio. The main results of the study explained that each ratio (variable) has a significant effect on the financial positions of enterprises with differing amounts and that along with the liquidity ratios in the first place. Profitability ratios also play an important role in the financial positions of enterprises.

The effect of liquid asset holdings on U.S. and Canadian banks is presented by Bordeleau É., et al. (2010) study. Results proposed that profitability is improved for banks that hold some liquid assets, however, there is a place at which holding further liquid assets minimize a banks' profitability, all else equal. Furthermore, empirical evidence also indicated that this relationship varies depending on a bank's business model and the state of the economy. These results are particularly relevant as policymakers devise new standards establishing an appropriate level of liquidity for banks.

## 3. Research Methodology

This section presents research methodology adopted in this study. It explains sample selection criteria, variables of the study and research model, hypotheses.

### 3.1. The Research Sample

The study checks financial reports for overall Jordanian Banks listed on the Amman Stock Exchange (ASE) for the period 2005- 2011

### 3.2. Variables of the Study

#### 3.2.1. Dependent Variable- Return on Asset

##### Return on Asset

The return on assets (ROA) compares income with total assets (equivalently, total liabilities and equity capital). It can be interpreted in two ways. First, it measures management's ability and efficiency in using the firm's assets to generate operating profits. Second, it reports the total return accruing to all providers of capital (debt and equity), independent of the source of capital.

The return is measured by net income prior to the cost of financing and is computed by adding back (after-tax) interest expense to net income:

$$\frac{\text{Net income} + \text{After-Tax Interest Cost}}{\text{Average Total Assets}}$$

ROA can also be computed on a pretax basis using EBIT as the return measure. These results in a ROI measure that is unaffected by differences in a firm's tax position as well as financial policy:

$$\frac{\text{Earnings before Interest and Taxes (EBIT)}}{\text{Average Total Assets}}$$

#### 3.2.2. Independent variable- Quick Ratio

##### Quick Ratio

The quick ratio is more conservative than the current ratio because it includes only the more liquid current assets (sometimes referred to as "quick assets") in relation to current liabilities. Like the current ratio, a higher quick ratio indicates greater liquidity.

The quick ratio reflects the fact that certain current assets-such as prepaid expenses, some taxes, and employee-related prepayments- represent costs of the current period that have been paid in advance and cannot usually be converted back into cash. This ratio also reflects the fact that inventory might not be easily and quickly converted into cash, and furthermore, that a company would probably not be able to sell all of its inventory for an amount equal to its carrying value, especially if it were required to sell the inventory quickly. In situations where inventory illiquid (as indicated, for example, by low inventory turnover ratios), the quick ratio may be a better indicator of liquidity than is the current ratio.

Quick ratio would be calculated as follow:

$$\frac{\text{Cash+ Short-term marketable investments +Receivables}}{\text{Current liabilities}}$$

##### Major Hypothesis

**H01: There is no significant impact of independent variable quick ratio on dependent variable return on asset (ROA).**

### 3.3. Research Model

In order to examine the study hypotheses, the research model can be designed as follows:

$$\text{Return on asset (ROA)} = 2.916 - 3.198 \text{ Quick Ratio} + e$$

Where  $b_0$  denote the intercept of regression equation and  $b_1$  are co-efficient of Quick Ratio.

##### Simple Regressions

This section shows the results of descriptive analyses for the study variables.

To examine the research hypotheses SPSS program was used to prepare the table of analysis of variance (ANOVA table) as shown in table below:

	Sum of Squares	df	Mean Square	F	Sig.
<b>Regression</b>	.718	1	3.198	9.117	.010
<b>Residual</b>	1.023	13	.718		
<b>Total</b>	1.741	14	.079		

a Predictors: (Constant), Quick Ratio

b Dependent Variable: Return on asset (ROA).

By reading the table above we find that the value of (F) is highly significant, at  $\alpha=5\%$  and this support the reject of the main null hypothesis. Which means that the liquidity of Jordanian banks through quick ratio has

in important influence on these banks profitability through return on assets (ROA).

**There is significant impact of independent variable quick ratio on dependent variable return on asset (ROA).**

### 5. Summary and Conclusion

This study is conducted by studying the banking sector in Jordan as one of the most animated and leading sectors in Jordan. For the analysis use the simple regression for the period from 2005 to 2011, to investigate the impact of liquidity through quick ratio on profitability through return on asset (ROA). Based on the statistical results, we conclude that there is significant impact of independent variable quick ratio on dependent variable return on asset (ROA). That means profitability in Jordanian banks is significantly influenced by liquidity. However, many studies such as Adebayo O. et al. (2011) study which located that profitability in commercial banks is significantly influenced by liquidity and vice versa. Also Saleem Q., et al. (2011) study mentioned that there is a significant impact of only liquid ratio on ROA.

### References

- Adebayo O., David A., Samuel O., (2011), "Liquidity Management and Commercial Banks' Profitability in Nigeria." *Research Journal of Finance and Accounting*, 2222-1697 (Paper), ISSN 2222-2847 (Online), Vol. 2, No 7/8, 2011. [www.iiste.org](http://www.iiste.org) ISSN
- Bordeleau É., Graham C., (2010), "The impact of Liquidity on Bank Profitability." Bank of Canada Working Paper 2010-xx, ISSN 1701-9397.
- Bourke P., (1989), "Concentration and other Determinants of Bank Profitability in Europe, North America, and Australia." *Journal of Banking and Finance*, 13, PP. 65-79.
- Lartey V., Antwil S., Boadi E. (2013), "The Relationship between Liquidity and Profitability of Listed Banks in Ghana." *International Journal of Business and Social Science*, Vol. 4 No. 3; March 2013.
- Molyneux P., Thornton J. (1992), "Determinants of European Banks Profitability: A Note." *Journal of Banking and Finance*, 16(6), PP., 1173-1178..
- Saleem Q., Rehman R. (2011)., "Impacts of liquidity ratios on profitability (Case of oil and gas companies of Pakistan)." *Interdisciplinary Journal of Research in Business*, Vol. 1, Issue. 7, July 2011(pp.95-98)
- Shahchera M. (2012), "The Impact of Liquidity Asset on Iranian Bank Profitability." *International Conference on Management, Behavioral Sciences and Economics Issues*, (ICMBSE'2012) Penang, Malaysia
- Uremadu S. (2012), "Bank Capital Structure, Liquidity and Profitability Evidence from the Nigerian Banking System." *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Volume 2, Issue 1 (2012) ISSN: 2225-8329
- Williams, D. M. L. and Thornton, J., (1994), "Competitive Conditions in European banking." *Journal of Banking and Finance*, 18, PP. 445-459.

### Other sources:

- Financial Reporting and Analysis, CFA, Program Curriculum, volume 3, level 1, 2012
- The Analysis and Use of Financial Statements, Gerald I. White, Ashwinpaul C. Sondhi, Dov Fried, Third Edition, Wiley.
- Financial Statement Analysis, Gibson, 13<sup>th</sup> edition

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