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Evaluating the Financial Soundness of the Jordanian Commercial Banks by Applying BankoMeter's Model

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Abstract

In the developing countries like Jordan, banking sector injects funds in the body of the organizational and economical development. Thus, regarding to the importance of its vital function the study aimed to evaluate the financial soundness of thirteen Jordanian commercial banks, during the period of 2002-2011. After analyzing the intended data, the study found that all of the Jordanian Commercial banks are financially sound and termed as super sound banks. However, the Arab Banking Corporation it reached the peak followed by Capital Bank of Jordan, and for Cairo Amman Bank it stood at the 13th position within solvency ratio of (0.8711). By hanging on these results, the study concluded that the Bankometer could help the commercial Jordanian banks' internal management to eschew insolvency issues with a proper control over their operations.

Keywords: Financial Soundness & Stability, BankoMeter's Model/ Parameters, Commercial Banks, & CAR.

1. Introduction

The banking sector captures a unique position in a majority of nations' economies, and that regarding to its important function of financing the vehicle of economics' development. The economical sophistication for each country could be determined by depending on the stability of its banking system. However, Jordanian commercial banks play a vital role in orientating the surplus units to the deficit units for the purpose of making the financial equilibrium. Consequently, the improvement in the performance of Jordanian commercial banks has been achieved its aims, despite the several hurdles that appearing on the way, such as temporary slowdown in the economic activity, a tightening liquidity situation and changes in the financial environment's regulations. Additionally, the Jordanian banking sector has undergone structural changes during the post liberalization era with the implementation of prudential norms for income reorganization, provisioning and assets classification. Thus, the banking sector is ready to implement Basel III accord in the near forerun. Moreover the current research is going to evaluate the financial performance of Jordanian commercial banks according to its financial stability and solvency's rate, and that by applying the parameters of BankoMeter's model which is a mix of the CAMELS and CLSA stress tests.

2. The Study Problem

Recently, it has been noticed that because of the insufficient Banking and Financial culture of the Jordanian society, Jordanian banks' clients still facing some of barriers when they think where to deposit their surplus or from where to finance their deficit, and this is the same problem that has made some of them don't be able to answer about what are the best Jordanian commercial banks that are safe to deal with? Furthermore, the current research aimed to answer the stated question through evaluating the financial soundness of listed Jordanian commercial banks.

3. The Study Objectives

The main objective of this research is to evaluate the financial soundness of the Jordanian Commercial banks, to familiarize the Jordanian banks' clients and employees with basic knowledge about banking supervision, of which the BankoMeter's framework is a good measurement to evaluate the soundness of banks and to provide them with the rates that can help them in choosing the best bank according to their financial needs and transactions.

4. The Study Hypothesis

On the basis of research's problem and objectives outlined above, the research's hypothesis has been formulated as follows:

H_0: There are no statistical significant differences in the solvency's ratios of listed Jordanian Commercial Banks.

5. Data and Methodology

This study is mainly based on the secondary data selected from the annual reports of the Jordanian commercial banks. The pith of the data used in this research come-out from 13 listed Jordanian commercial banks' annual reports which published on their websites and on the website of Amman Stock Exchange, and that during the period of (Dec, 2002 to Dec, 2011). For the purpose of achieving the study's aims, the researchers applied the Bankometer's Model which is developed on the recommendations of IMF (2000), and it is a recent innovation in the area of banks' soundness evaluation that built by deriving from both CAMELS' model and CLSA stress test.

6. Theoretical Framework

6.1. Bankometer Parameters

Capital Adequacy Ratio: 40 % ≤CAR≥ 8%

Capital to Assets Ratio: Capital / Asset: ≥ 4%

Equity to total Assets: Equity / Asset: ≥ 2%

NPLs to Loans: NPLs / Loans: ≤ 15%
Cost to Income ratio: Cost / Income: ≤ 40%

Loans to Assets: Loan / Asset: ≤ 65%

6.2. These percentages explain a bank that;

• has capital adequacy ratio between 8% and 40%,

• has more than 4% capital to assets ratio,

• has equity to assets ratio greater than 2%,

• has controlled non-performing loans (NPLs) ratio below 15% and

• has maintained liquidity by controlling loans to assets ratio below 40%,

Ratio	Criteria
CAR	≥ 8% - 40%
Capital to Assets	≥ 4%
Equity to total Assets	≥ 2%
NPLs to Loans	≤ 15%
Cost to Income	≤ 40%
Loans to Assets	≤ 65%

The performance of the banks can be measured under Bankometer procedure by measuring their respective solvency. The ability to predict which banks are Vulnerable to financial distress is of critical importance to central banks, creditors and to equity investors. When a bank goes insolvent, creditors often lose portion of principal and interest payments, while equity investors can potentially lose all of their investment. Additionally, even if the bank survives after a financial distress, the survival costs will significantly reduce the future growth outlook. It is therefore important for management to focus more on trying to predict the banks that are vulnerable to financial distress in near future using BankoMeter's Equation (IMF, 2000 and Sher, et al, 2010):

S = 1.5* CA + 1.2* EA + 3.5 * CAR + 0.6*NPL + 0.3*CI + 0.04*LA

Whereas:

CAR: Capital Adequacy Ratio.

CA: Capital Assets ratio.

EA: Equity to Assets.

NPL: Non Performing Loans to Loans.

CI: Cost to Income.

LA: Loans to Assets.

S: Solvency.

According to the Altman (1968) stated that all banks having 'S' value greater than 70 are solvent and termed as super sound banks, while those banks having 'S' Value below 50 is not solvent. The area between 50 and 70 is defined as gray area because of the susceptibility to error classification (50<S<70).

6.3. CAMEL Rating

Federal and state regulators regularly assess the financial condition of each bank and specific risks faced via on-site examinations and periodic reports. Federal regulators rate banks according to the uniform financial institutions rating system, which now encompasses six general categories of performance under the label CAMELS. Each letter refers to a specific category, including (MacDonald & Timothy, 2006, p.92-93).

a. Capital Adequacy

Capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution‘s debt holder. Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element. Thus, The capital component (C) signals the institution’s ability to maintain capital commensurate with the nature and extent of all types of risk, and the ability of management to identify, measure, monitor, and control these risks. It is important for a bank to maintain depositors’ confidence and preventing the bank from going bankrupt.

b. Asset Quality

The quality of assets (A) is an important parameter to gauge the strength of bank and it reflects the amount of existing credit risk associated with the loan and investment portfolio, as well as off-balance sheet activities.

c. Management Quality

Management quality category (M) is an important element of the CAMEL Model as it reflects the adequacy of the board of directors and senior management systems and procedures to identify, measure, monitor, and control risks. Regulators emphasize the existence and use of polices and processes to manage risks within targets.

d. Earnings

The quality of earnings (E) is a very important criterion that determines the ability of a bank to earn consistently. The Earnings category reflects not only the quantity and trend in earnings, but also the factors that may affect the sustainability or quality or earnings (Brigham & Ehrhardt, 2005, p. 454).

e. Liquidity

Liquidity (L) reflects the adequacy of the institution’s current and prospective sources of liquidity and funds management practices. Risk of liquidity is curse to the image of bank. Bank has to take a proper care to hedge the liquidity risk; at the same time ensuring good percentage of funds are invested in high return generating securities, so that it is in a position to generate profit with provision liquidity to the depositors. There should be adequacy of liquidity sources compared to present and future needs, and availability of assets readily convertible to cask without undue loss. The fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss (MacDonald & Timothy, 2006, p.92-93)

6.4. Literature Review

In the process of continuous evaluation for banks’ financial performance, the academicians, researchers, scholars and administrators have made several studies on the CAMELs, CLAS and Bankometer’s models but in different perspectives and in different periods. And they are as follows:

The study of Anita & Shveta (2012) attempted to evaluate the solvency of 37 Indian Commercial banks using Bankometer's model, covering the period of 07/2006 to 11/2010. The findings of this study revealed that private sector banks has performed well and are financially more sound as compared to public sector banks. Top five financially sound banks include Kotak Mahindra, Federal, ICICI, HDFC and Development Credit Bank. The Worst five banks include Central Bank of India, UCO, Syndicate Bank, Bank of Maharashtra and State Bank of Travancore.

Bhattacharya (1997) found that during the post liberalization ear efficiency of public sector banks declined whereas that of private and foreign banks has improved overtime. Maria, Silva and Thannassoulis (2003) evaluated the Japanese banks and concluded that major problem of failed banks was not the inefficiency of management but the below standard capital adequacy ratio and considerable problem in their asset quality.

According to Kumbhakar and Sarkar (2003) revealed that the performance of private sector banks but not the public sector banks have improved in response to deregulation measures. Das and Ghosh (2006) found a close relationship between the efficiency and soundness of banks as determined by capital adequacy ratio. The study of Kumar and Gulati (2008) exhibited that the overall technical inefficiency of Indian commercial banks was due to both poor input utilization and failure to operate at most productive scale size.

Wu and Zhang (2005) found that industry factors and the corporate size played a great role in affecting the financial distress: cost of financial distress became great when enterprise in financial distress stood in a poor business environment, and asset size of enterprises had a positive relationship with financial distress cost.

According to the Nimalathasan (2008), it is evident from the discussion that average financial position of selected listed manufacturing companies was not sound during the period understudy. Moreover, test of the soundness as revealed by Z score (Altman Model) showed that the selected companies were on verge of failure.

Derviz et al. (2008) investigated the determinants of the movements in the long term Standard & Poor's and CAMEL bank ratings in the Czech Republic during the period when the three biggest bank s, representing approximately 60% of the Czech banking sector's total assets, were privatized (i.e., the time span 1998-2001).

Gupta and Kaur (2008) conducted the study with the main objective to assess the performance of Indian Private Sector Banks on the basis of Camel Model and gave rating to top five and bottom five banks. They ranked 20 old and 10 new private sector banks on the basis of CAMEL model. They considered the financial data for the period of five years i.e., from 7/2003.

Bhayani (2006) analyzed the performance of new private sector banks through the help of the CAMEL model. Four leading private sector banks – Industrial Credit & Investment Corporation of India, Housing Development Finance Corporation, Unit Trust of India and Industrial Development Bank of India - had been taken as a sample.

Godlewski (2003) tested the validity of the CAMEL rating typology for bank's default in emerging markets. He focused explicitly on using a logical model applied to a database of defaulted banks in emerging markets.

Said and Saucier (2003) examined the liquidity, solvency and efficiency of Japanese Banks using CAMEL rating methodology, for a representative sample of Japanese banks for the period 1993- 1999, they evaluated capital adequacy, assets and management quality, earnings ability and liquidity position.

Prasuna (2003) analyzed the performance of Indian banks by adopting the CAMEL Model. The performance of 65 banks was studied for the period 2003-04. The author concluded that the competition was tough and consumers benefited from better services quality, innovative products and better bargains.

Dar and Presley (2000) have discussed and analyzed the third area of CAMEL model i.e. Management and control of internal governance of banks and financial companies. The Islamic banks and financial companies of Muslim world are taken into consideration. They have found that the an absence of correct balance between management and control rights is the major cause of lack of profit and loss sharing in the Islamic finance structures.

What distinguishes this research?

Evaluating the soundness of banking sector represent the most important subject which depositors and creditors prefer to take into account while dealing with banks. However, through reviewing the previous related studies, it observed that various studies have done in the context of financial position and performance and indeed there are not sufficient studies for evaluating the financial soundness by applying the model of Bankometer. However, in attempt to fill this research gap, the present study is initiated on evaluating the financial soundness of Jordanian commercial banks by applying the Bankometer's parameters. For the Jordanian commercial banks, there is not any study that evaluated its soundness by applying the parameters of Bankometer, thus this study considered as the first one that to slight the light on evaluating Jordanian banks by applying BankoMeter's parameters.

7. Results, Conclusions & Recommendations

Variable	CAR	CA	EA	NPL	CI	LA	S	Rate
Percentage	40% ≤CAR≥ 8%	≥ 4%	≥ 2%	≤ 15%	≤ 40%	≤ 65%	MAX 70% MIN 50%	
Banks' Names								
ARAB BANK	0.2064	0.134	0.1721	0.0022	0.4348	1.2070	1.1135	7
JOR-KUWAIT BANK	0.1617	0.042	0.1622	0.0003	0.4012	0.4380	0.9625	11
JOR-COMMERCIAL BANK	0.1446	0.118	0.2674	0.0046	0.7659	0.5728	1.2612	5
THE HOUSING BANK FOR T & F	0.2521	0.043	0.1580	0.0003	0.4957	0.2428	1.2964	4
ARAB JOR-INVESTMENT BANK	0.2386	0.102	0.1383	0.0017	0.5344	0.2499	1.3260	3
BANK AL-ETIHAD	0.1852	0.069	0.1439	0.0005	0.5713	0.0389	1.0981	8
ARAB BANKING CORPORATION	0.2333	0.094	0.5342	0.0156	0.5402	0.1435	1.7768	1
INVEST BANK	0.1720	0.089	0.1297	0.0009	0.3928	0.2831	1.0223	9
CAPITAL BANK OF JORDAN	0.2087	0.142	0.1778	0.0178	0.6181	0.3448	1.3676	2
SOCIETE GENERAL DE BANQUE	0.2638	0.073	0.0784	0.0013	0.4133	0.1502	1.2593	6
CAIRO AMMAN BANK	0.1539	0.029	0.0646	0.0005	0.6661	0.2688	0.8711	13
BANK OF JORDAN	0.1381	0.058	0.1015	0.0007	0.9991	0.4096	1.0098	10
JORDAN AHLI BANK	0.1305	0.047	0.0913	0.0088	0.7334	0.3476	0.8764	12

7.1. Evaluating Results

a. Solvency

The Findings of solvency Show that all of the Jordanian Commercial banks have a very good financial positions (Super Sound Banks), as all of them have Solvency Scores greater than the acceptance ratio (70%). By applying the Bankometer's Parameters, the study revealed that the Arab Banking Corporation stood at the first position followed by Capital Bank of Jordan, Arab Jordan Investment Bank, the Housing Bank for Trade & Finance and Jordan Commercial Bank. Cairo Amman Bank stood at 13th position with solvency of (0.8711). On the basis of the Bankometer's Parameters the results found that there are differences in the solvency of Jordanian commercial banks.

b. Capital Adequacy Ratio

Banks capital is expressed as a percentage of its risk weighted credit exposures. This ratio used to protect depositors and creditors the stability and efficiency of the financial system of the economy. The SOCIETE GENERAL DE BANQUE stood at the peak, followed by the Housing Bank for Trade & Finance, Arab Jordan Investment Bank, Arab Banking Corporation, and the Capital Bank of Jordan. Jordan Ahli Bank stood at the bottom followed by Bank of Jordan, Jordan Commercial Bank and Cairo Amman Bank.

c. Capital to Asset Ratio

According to the IMF guidelines, banks should have ratio of (CA) more than 4%. However, the table shows that only the ratio of Cairo Amman Bank is below the prescribed minimum limit. The Capital Bank of Jordan has the highest capital to asset ratio followed by the Arab Bank and Jordan commercial Bank. The Jordan Kuwait Bank has the lowest ratio followed by The Housing Bank for Trade & Finance and Jordan Ahli Bank.

d. Equity to Assets Ratio

Equity to Assets Ratio is used to examine how much assets are financed by shareholders. The higher the ratio is an indicator of the soundness from the point view of long term. Large proportion of assets provided by equity

means that firm is less dependent on the external source of fund. Equity to Assets ratio must be more than 2%. All the Jordanian commercial banks have ratios of (EA) more than the limit. By comparison the table reveals that the Arab Banking Corporation has the highest position followed by Jordan Commercial Bank and Capital Bank of Jordan. Cairo Amman Bank has the lowest ratio followed by SOCIETE GENERAL DE BANQUE and Jordan Ahli Bank.

e. Non Performing Loans to Total Loans Ratio

The ratio of NPL to Total Loans exhibits that how much of the total loans has been classified as Non-performing loans. These loans are irrecoverable as interest payment is due on it more than 90 days. The Higher the ratio is an indicator of inefficient management of the bank. Nonperforming loans ratio should be below the acceptance ratio (15% as per IMF). All of the Jordanian commercial banks' ratios are below the acceptance ratio. By comparison the table exhibits that the Capital Bank of Jordan has the highest ratio followed by Arab Banking Corporation. Both the Housing Bank for Trade & Finance and the Jordan Kuwait Bank has the lowest ratios followed by Al-Etihad Bank and Cairo Amman Bank.

f. Cost to Income Ratio

It indicates the proportion of net total expenses to the total operating income. The lower the ratio the greater the profitability, and vice versa. According to IMF guidelines, the ratio of the total Cost to the total must be below 40%. And the results' table shows that all of the Jordanian commercial banks have this ratio above the acceptance one (40%). By comparison the Invest Bank has the highest ratio. The Bank of Jordan has the lowest cost to income ratio followed by Jordan commercial Bank.

g. Loans to Assets Ratio

This ratio reveals the proportion of the total assets has been used in advancing the loans. This amount has been invested for long time period. Higher the ratio is good as it increases the profitability of the banks. But it should be in limit also to ensure that the adequate liquidity in the banks. As per IMF guidelines this ratio should be below 65%. By comparison the results' tables shows that the Arab Bank has highest loan to asset ratio and its ratio exceeds the maximum limit of (65%), followed by, Jordan Commercial Bank which is the best. Bank Al-Etihad has the lowest ratio followed by Arab Banking Corporation.

7.2. Conclusions

On the bases of the results retrieved from the Bankometer's Parameters it concluded that all of the Jordanian commercial banks which reach the number of thirteen are financially sound, as none of them has solvency score under the standard percentage. Therefore, using Bankometer's model would help the banks internal management to eschew insolvency issues with a proper control over their operations. Furthermore this new procedure could help Jordanian banks to gauge the solvency problems and to eradicate the shortcomings through a proper channel. The study reveals that bank Al-Etihad has the best transparency policies.

7.3. Recommendations

Based on the study's results, we suggested a set of recommendations, and they are as follows:

1. It's very important for a small number of Jordanian banks to use advanced policies to invest some of its non-performing capital. For instance, using these policies could help Bank Al-Etihad to gain more profit, once it employ at least 3% of its CAR.

2. For improving financial position, the necessity of qualified trained and experienced management personnel; Government realistic measure, following participative management, supply of adequate working capital, setting realistic goals, fixation of accountability and motivation for achievement of performance And penalization for non-achievement of the same etc must be ensured in the selected banking sector.

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