

# The Impact of the Volume of Deposits and Facilities and Profits on Bank's Liquidity an Exploratory Study on Jordanian Commercial Banks

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## Abstract

Banks liquidity is the main driver of banking operations, and the lack of the sufficient liquidity prevents banks from performing their role as a mediator between money owners and funding seekers, in addition to inability to meet the costs of daily operations including employees' salaries. And this puts the bank in a risky situation threatening the bank survival. So bank liquidity shortage has consequences damages of social and economic. Where this shortage may deprive the funding seeker from establishing a business or industrial project or etc. of projects, which may contribute in economic development in the country in the one hand, and deprive his family from gaining additional income to improve their livelihood from the other hand.

Therefore, one can find that banks have paying increased attention towards liquidity, and Central Banks Keep on liquidity ratios that banks should keep them. As long as banking deposits facilities, and profits are the actual drives of banks liquidity, this study examines in the effects of these activities on liquidity in Jordanian Commercial banks.

**Keywords:** Liquidity, deposits, profits, Facilities, Commercial Banks Creation

**Problem Statement and Questions:**

Given that banking liquidity was from the direct reasons of occurring the global financial crisis, Basil Committee has issued new standards for liquidity in banks. The most important standards stipulates on: (Ratio of liquidity Coverage, represents high liquidity assets (according to Basel 111) to net cash outflows should not be less than 100%). In this regard; the Central Bank of Jordan has issued a lot of memos related with bank's liquidity in order to commitment in Basel 111 decisions. From here, the problem of this study takes the following statement, "There are essential effects to deposits, facilities, and profits of banks, on the liquidity of banks."

This problem was discussed according to the following question:

- 1- Deposits volume how can effect on liquidity in Jordanian Commercial banks?
- 2- Is there any relationship between deposits structure and the bank liquidity?
- 3- What are the effects of banking granted facilities on bank liquidity?
- 4- To what extent the banks' profits affect in the bank liquidity?
- 5- Do Jordanian Commercial banks keep to balance between liquid assets and liabilities traded as a kind of commitment to the decisions of Basel 111?

**The Significance of the study**

Liquidity in the banks is the nutrient artery to the banking activities. Insufficient liquidity prevents the financing bank operations which it is the most important one of banking activities in producing profits. And because deposits are the most important source in creating banking liquidity, the importance of this study starts from this point which addresses two of the main sources of liquidity (Deposits and Profits), besides the main user of this liquidity (banking Facilities).

**The study objective:**

The main purpose of this study is to discern the impact of banking deposits, banking facilities, and banking profits on banking liquidity in Jordanian commercial bank through identifying the structure of deposits, and the extent of inconsistency between this structure and deadlines of repayment the granted facilities.

**The study Population and Sample:**

The population of this study consists of the Jordanian Commercial banks operating in Amman city, while the sample consists of all banks for the period 2010-2014.

**Data Collection:**

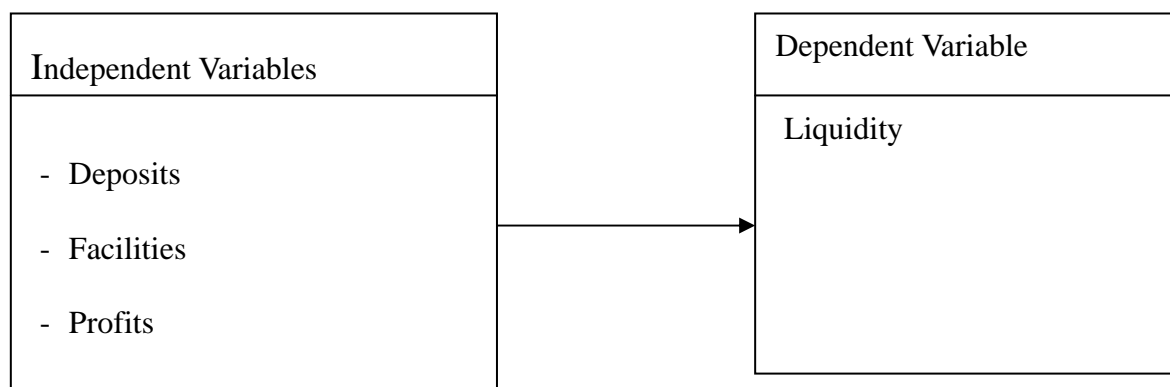
Secondary data was collected from the related literature and the regulations issued by the Central Bank of Jordan in Addition to the Basel 111 decisions.

**Methodology:**

This study was conducted through examining the changes of the three independent variables

(deposits, facilities, and profits) in the period's sample to the banks, and the effects of these changes on the liquidity in bank.

### The Study Model:



### Literature Review:

The researcher has selected some previous studies that may be beneficial to the purposes of this study:

- A Study by Aikaeli (2006) under the title: “Determinants of Excess Liquidity in Tanzanian Commercial Banks”.

The study aimed to determine the Causes of excess liquidity in the Tanzanian Commercial banks. The study was conducted on the commercial banks for the period 1999-2004 by using the autoregressive distributed lag model. The results showed the main causes of excess liquidity which were; high cost of funds, credit risks, volatility of deposit holders, and the rate of required reserves, where, all of these factors lead to ongoing accumulation of liquidity.

- A Study by Berger and Bouwman (2009), under the title: “Bank Liquidity creation.”

The study aimed to suggest Comprehensive measures of bank liquidity creation, in order to use these measures to provide a deeper insight on the role of banks in the field of liquidity creation. The study was conducted on all U.S banks for the period 1993-2003. The collected data were analyzed to answer specific questions which were. How much liquidity banks create? How liquidity creation has changed over time, how it varies in the cross section? Which banks create the most and the least liquidity? And how liquidity creation is related to bank value? The findings were as follows.

- U.S banking sector has created liquidity about 2.8 trillion U.S dollar as at 2003 according to the suggested measures.
- Banks have created only about half of liquidity that shown in the balance sheet.
- Large banks with gross total assets exceeding 3 billion Created 81% of the liquidity.
- Liquidity creation is affected positively from the bank value.

- Study by Allen et al (2012) under the title: "Transmission of Bank Liquidity Shocks in Loan and Deposit Markets: The Role of Interbank Borrowing and Market Monitoring".

The study aimed to explore the effects of liquidity transformation from the parent bank to the subsidiaries banks on the Parent bank liquidity. The study was conducted on the multinational banks using a 2008 ranking published by the Banker Magazine, the sample consists of 51 banks. The results showed that the crispness of the Parent bank negatively affects lending process by subsidiaries, and this causes relying on interbank borrowing by subsidiaries to support their liquidity used in lending activity. Also, the results showed that higher interest rates may be used by subsidiaries to attract more deposits to enhance liquidity.

- Study by Acharya et al (2009) under the title: "Imperfect competition in the interbank Market for liquidity as a Rational for Central Banking."

The study aimed to discuss the situation of banks during crises especially in terms of the distribution of liquidity among banks was highly deprived, where the banks that have high liquidity surplus may not lend efficiently the needy banks, but they waiting the closure of these banks, or liquidation of their assets to be as a strategic gains for those surplus banks. Therefore, the researchers suggest that central Banks must intervene to eliminate the bargaining power of surplus banks in the interbank market. Also, the general reserve of needy banks may improve the private reserve, which leads the Central Bank to provide the needed liquidity in a competitive interest rates:

### **Theoretical Background:**

Bank's liquidity Plays the most important role in banking activities, where, the lending activity which is the main producer of profitability depends on the availability of liquidity. In the same time the non-performing loans are considered from the barriers that affect negatively liquidity and profitability (Louzis, 2011).

And since the banks are the mediator between the money owners and the money seekers, the clients, deposits have become the most important source of liquidity in the bank besides the interbank operations (Pistor, 2010).

The central Bank of Jordan is showing a big attention for the liquidity in Jordanian banks through publishing and distributing many memos related by liquidity, and through monitoring the bank's commitment in liquidity instructions issued by C.B.J, which are almost consistent with decisions of Basel 111 Committee which were stipulated under the title the liquidity standard on the following:

- 1- Liquidity coverage Ratio = High liquidity assets ratio to net cash outflows during 30 days, and should not be less than 100%.
- 2- Net stable Ratio = liabilities + ownership equity / Assets

And should not be less than 100%. (Kokash, 2012).

The central Bank of Jordan has issued the memo No.41/2008 to the Jordanian banks under the title "Instructions for liquidity Based on the Maturity Ladder." See Appendices.

One can infer from the above table, the central Bank of Jordan's Keeness on the banks of Jordan's commitment to the decisions of Basel 111. The level of this Keeness was increased during the occurrence of the global financial crisis, especially, that liquidity shortage in banks formed a big reason to the crisis occurrence (Brunnermeier, 2008). Moreover, liquidity ratio in banks measures the ability of the bank to meet the short-term obligations depending on liquid assets and it is calculated by this equation

$$\frac{\text{Liquid assets}}{\text{Short-term obligations}} = \text{Current ratio or liquidity ratio}$$

Assume for example that total liquid assets was \$ 60000 and short term obligations \$ 40000. So

$$\frac{60000}{40000} = 1.5 \text{ Time}$$

This means that the bank has liquid assets larger than short-term obligations for one and half times. Or, each dollar of obligations offset by on and half dollar of liquidity.

### **Liquidity Situation in Jordanian banks:**

The table below shows the consolidated balance sheet of licensed banks of Jordan for the years 2010-2014.

**Table 1.** Consolidated balance sheet of licensed banks Billion J.D

	2010	2011	2012	2013	2014
Foreign assets	6.1	6.3	6.4	5.2	4.7
Public-sector debt	5.7	7.4	9.0	10.5	11.0
Private-sector debt	13.6	14.9	15.9	17.2	17.8
Cash in hand and banks	6.9	6.2	4.8	6.5	7.6
Others	2.7	2.9	3.2	3.4	3.8
Total assets-liabilities	35.0	37.7	39.3	42.8	44.9
Foreign liabilities	6.0	6.2	5.8	6.7	6.7
Deposits	18.3	19.9	20.4	22.2	24.0
Loans from C.B.J	0.4	0.4	1.0	0.8	0.6
Owners' equity	4.9	5.4	5.8	6.1	6.8
Others	5.9	5.8	6.3	7.0	6.8

### **The table above shows:**

2010: liquid assets 26.2, short-term obligations 18.7, liquidity surplus 7.5.

2011: 28.5- 20.3 = 8.2 surplus

2012: 29.7 – 21.4 = 8.3 surplus

2013: 34.3 – 23 = 11.3 surplus

2014:  $36.4 - 24.6 = 11.8$  surplus

While for the current ratio for the above years was as follows:

2010: 1.4 Times                      2013: 1.5

2011: 1.4 Times                      2014: 1.5

2012: 1.38 Times

One can note here that although of the progressive increase in loans granted, but liquidity of banks remained stable, where the deposits have achieved a good increase across the years.

From the keenness of central Bank of Jordan on the adequacy of bank liquidity, memo No. 41/2008 was issued by the Central Bank of Jordan to be applied by the banks operating in Jordan.

**Instructions for Liquidity based on the Maturity Ladder  
No. (41/2008)**

**Issued by the Central Bank of Jordan in the Virtue of the Provisions of Article  
(45/A) of the Central Bank Law and the Article (99/B) of the Banking Law**

In line with the desire of the Central Bank to enhance the capability of the banks to meet all of their commitments at maturity, and to ensure that the banks keep a sufficient level of liquidity in a way that maintains the soundness of their financial position, I have decided the following:

**First: General Provisions to Implement Liquidity based on the Maturity Ladder:-**

1. The bank has to keep sufficient amounts of cash and quasi cash balances to meet the matured liabilities at any time.
2. The bank has to prepare a matching future policy for the cash flows, taking into account the possibility that some customers may fail to meet their commitments towards the bank on due dates.
3. The bank has to diversify the investments of its funds in a manner that comes in line with the structure of these funds with regards to maturities, taking into consideration the structure of depositors.
4. The necessity of having sufficient liquidity on both local and external levels, noting that it is not allowed for the bank's management to depend on the assets of the cross-border establishments to meet the local liabilities. Therefore, the management should balance between the nature of assets and liabilities concerning the place and the currency.
5. Given the importance of differentiating between the liquidity in the Jordanian Dinar and other currencies, the study of the bank's liquidity based on the



liquidity ladder will be on two levels, the first: as it is in the Jordanian Dinar only, and the second: as it is with all currencies.

6. This mechanism is different from the traditional methods in measuring liquidity by its emphasis on the maturities of cash inflows and outflows more than the liquid assets available at the time of the study.
7. The bank has to reach, at least, a level of equilibrium in the cumulative liquidity starting from fifth category, which reflects the situation of the maturities of the bank's liquid assets and liabilities.

### **Second: Implementation of the Maturity Ladder:-**

To implement this method, three sheets have been prepared (attached) as follows:

- Sheet No. (1) which represents the details of assets
- Sheet No. (2) which represents the details of liabilities
- Sheet No. (3) which represents the liquidity position based on the maturity ladder

Each one of the aforementioned sheets is divided into (6) time categories as follows:-

Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year

The time categories displayed above will be used for the purposes of calculating the liquidity of the bank and the soundness of the investments of its funds. The ratios calculated for this purpose are:-

1. The coverage ratio of assets to liabilities for each time category; this ratio is called "the ratio of surplus or deficit for the category"
2. The coverage ratio of assets to liabilities for more than one time category; this ratio is called "the cumulative ratio of surplus or deficit "

The assets and liabilities sheet are shown in the appendices of this study.

## Results and Recommendations:

### *Results*

The main results of this study are:

- The commitment of Jordanian banks to decisions of Basel on liquidity is very high.
- Central Bank of Jordan practices liquidity controlling seriously.
- Jordanian Banks are applying CBJ instructions issued about liquidity.
- The rate of increase in deposits during the years of the study amounted to 31%, while the rate of increase in loans amounted to 48%, and this did not adversely affect the liquidity, which indicates the keenness of the Jordanian banks to collect the loan installments on time.

### *Recommendations*

The researcher recommends the Jordanian banks to support their daily liquidity through interbank operations, because it contributes in enhancing the relationship among banks, in addition to low-cost through overnight deposits.

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### 1. The Assets Sheet

The following assets are included in this sheet:

- a. Cash, balances and cash deposits (including the legal reserve balances at the Central Bank).
- b. Government securities (The Jordanian Government)
- c. Securities guaranteed by the Jordanian Government
- d. Other financial assets: which include, for the purpose of these instructions, all the assets of the bank which have an active market. Consequently they can be liquidated at any moment at fair price and without losses.

For monitoring purposes, the assets displayed in the items (a, b, c, and d) above will be classified, according to the maturity ladder within category (1), as long as they will generate immediate cash inflow when needed. However, due to the element of risk, these assets will be subject to different discount rates before including them in the above-mentioned category. Listed below is a description of the assets which are classified in category (1), with the discount rates for some items for this purpose:



## e. Credit facilities:-

The credit facilities (excluding overdraft accounts) shall be included in the assets sheet according to the maturity dates in an effort to know the expected repayments which represent future cash flows for the bank.

As for the overdraft accounts, they shall be distributed as follows:-

Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
5%	10%	15%	20%	50%

## f. Assets under collection, these are classified within the time category at which the bank becomes able to liquidate or collect them.

## g. Accrued interests which have not been received according to their maturities

## h. Other banks' commitments:

These represent the commitments and the pledges of other banks to provide the bank with liquidity (if available), and they are subject to one of the following treatments:

1. If the committed bank is adhered to provide the bank (under consideration) with a specified amount on a specified date, the latter should display this amount within its assets in the appropriate time category.
2. If the committed bank is adhered to provide the bank (under consideration) with a specified amount when the latter needs that after a prior notice from the latter, then it should display this amount within its assets in the appropriate time category based on the required notice period.

3. If the committed bank will provide the bank (under consideration) with a specified amount when needed and without a prior notice, the latter should display this amount within its assets in category no. (1).

In this regard, it should be noted that the committed bank should display its commitments in cases (1), (2) and (3) above in accordance with the same time classification in the liabilities sheet.

- i. The following are excluded from the items of assets for the purposes of calculating liquidity according to the maturity ladder:-
  1. Any item of assets included in the calculation of liquidity and it is withheld, constrained or mortgaged against certain commitments or constrained with a condition or deterrent which prohibits its liquidation when needed.
  2. Non-performing loans and the interests in suspense in accordance with the instructions of the Central Bank of Jordan.
  3. Any sold securities with a commitment to re-purchase them at later dates (repurchase agreements).

## **2. The Liabilities Sheet**

- a) Liabilities include any item that could represent a commitment for payment on the side of the bank at any time, either directly or indirectly.
- b) These liabilities include the following:-
  1. Deposits of all kinds (customer deposits, banks and financial institutions deposits, deposits of the head office and the cross-border branches).
  2. Cash margins
  3. Borrowed amounts (all kinds)

4. Debt bonds
5. Secondary loans
6. Accrued interests according to maturities
7. Any other commitments

c) These liabilities are classified in general within the table according to the appropriate time categories taking into account their actual dates of maturity. However, as for time and demand deposits, which have no identified maturity date and available for withdrawal at request, and due to the fact that such deposits are not practically withdrawn during the period of category (1), such deposits have been distributed amongst the time categories at certain ratios as follows:

**1. Time and demand deposits (in Jordanian Dinar):-**

Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
20%	17%	14%	11%	8%	30%

**2. Time and demand deposits (in foreign currencies):-**

Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
26%	13%	20%	17%	14%	10%

d) As for facilities which have been extended but not utilized, and not subject to cancellation, and represent a commitment for payment on the side of the bank without specified maturity, they shall be distributed amongst the liability sheets at the following ratios:

Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
40%	30%	20%	10%	-	-



- e) As for the off-balance sheet accounts, in case it has been found some of them will represent a direct commitment for payment and will be a burden of the bank's liquidity, such accounts shall be included in the appropriate time category in the liability sheet.
- f) The shareholders equity and provisions are not included in the liability sheet, however, the proposed profits for distribution and the tax provisions and any other items of the same nature such as the provision for end of service allowances, the provision for legal cases against the bank, the provision for R&D, university fees, rewards for the board members, etc, because they will represent a cash outflow; such liabilities shall be classified within the category in which the cash outflow is expected to take place.
- g) The following are excluded from the liabilities for the purposes of calculating the liquidity according to the ladder of maturity:
1. Cash margins against non-performing facilities
  2. The amounts borrowed from the Jordan Mortgage Refinance Company.
  3. The amount of liabilities against repurchase agreements.

### **Calculating the Result:-**

To calculate the result, the following steps should be followed:

1. Moving the balances of total assets and liabilities as they are and in accordance to the various time categories from sheets (1) and (2) to sheet (3).
2. Subtracting the liabilities of each category from its assets; the result would represent the net deficit in the category if it was negative and the net surplus in the category if it was positive.
3. To calculate the ratio of deficit or surplus for each category, the net deficit or net surplus in the category shall be divided by its liabilities and the result shall



- be multiplied by (100%) to get the percentage ratio (the ratio of deficit or surplus for the category), taking into consideration the positive or negative sign.
4. To calculate the cumulative ratio of deficit or surplus, the following shall be taken into account:
    - a. The liabilities of the current category are added to the liabilities of the previous categories to reach the cumulative liabilities of the current category.
    - b. Adding the net positions of the previous categories to net position of the current category to reach the gross position of the category.
    - c. Dividing the gross position of the category by its cumulative liabilities and multiplying the result by (100%) to get the cumulative ratio of deficit or surplus.

For the purpose of explaining the method of calculating the aforementioned ratios, we attach herewith a sheet showing by symbols how to do the calculation.

**Third:** The bank has to provide the Central Bank with the attached liquidity sheets in accordance with the liquidity ladder filled according to the rules on a quarterly basis, noting that they should be received by the Central Bank no later than the 15<sup>th</sup> day of the following month.

**Fourth:** These instructions shall come into force as of date, and the Central Bank circular No. (10/2/2/6641) dated 25/4/2000 shall be cancelled.

Sincerely,

**Governor**

**Dr. Umayyah Toukan**

-Attachment

**Sheet No. (1/1)**  
**Details of Total Assets (in Jordanian Dinar and Foreign Currencies) for**  
**.....Bank, As of ( / /200 )**

		Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
		From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Cash, balances and cash deposits (including the legal reserve at the Central Bank in Jordanian dinar and foreign currencies).							
Government securities (The Jordanian Government)							
Securities guaranteed by the Jordanian Government							
Other Financial Assets	Debt Instruments classified within the financial assets for trading: a. With credit rating (AAA) as per the rating of Standard & Poor's or the equivalent from Moody's or Fitch or any other credit rating company accredited by the Central Bank b. With a credit rating not less than (Investment Grade) with the exception of the debt instruments mentioned in sub-item (a) above. c. With a credit rating less than (Investment Grade) or not rated						
	Debt Instruments classified within the financial assets available for sale or the financial assets held to maturity, according to the remaining period for maturity, as follows: a. One year or less b. More than one year and less than five years c. More than five years						
	Trading Stocks						
Credit Facilities	Loans and advances						
	Discounted bills						
	Overdraft						
Other Assets	Receivable assets						
	Accrued interests (according to due dates)						
Banks' obligations to support the bank liquidity when needed							
Total Assets of the Category							

**Sheet No. (1/2)**
**Details of Total Assets in Jordanian Dinar for .....Bank, As of ( / /200 )**

		Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
		From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Cash, balances and cash deposits (including the legal reserve at the Central Bank in Jordanian dinar and foreign currencies).							
Government securities (The Jordanian Government)							
Securities guaranteed by the Jordanian Government							
Financial Assets	Debt Instruments classified within the financial assets for trading: a. With credit rating (AAA) as per the rating of Standard & Poor's or the equivalent from Moody's or Fitch or any other credit rating company accredited by the Central Bank b. With a credit rating not less than (Investment Grade) with the exception of the debt instruments mentioned in sub-item (a) above. c. With a credit rating less than (Investment Grade) or not rated						
	Debt Instruments classified within the financial assets available for sale or the financial assets held to maturity, according to the remaining period for maturity, as follows: a. One year or less b. More than one year and less than five years c. More than five years						
	Trading Stocks						
Credit Facilities	Loans and advances						
	Discounted bills						
	Overdraft						
Other Assets	Receivable assets						
	Accrued interests (according to due dates)						
Banks' obligations to support the bank liquidity when needed							
Total Assets of the Category							

**Sheet No. (2/1)**  
**Details of Total Liabilities (in Jordanian Dinar and Foreign Currencies) for**  
 .....Bank, As of ( / /200... )

		Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
		From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
<b>Customer Deposits</b>	Demand						
	Saving						
	Time						
	Certificates of Deposits						
	<b>Total</b>						
Deposits of Banking System							
Cash margins							
Borrowed amounts (all kinds)							
Bonds							
Secondary loans							
Accrued interests according to due dates							
Facilities extended but not utilized, and not subject to cancellation							
Banks' obligations to support the Bank liquidity when needed							
Obligations of ordinary accounts which will represent a direct commitment							
Any other commitments							
Total Liabilities of the Category							
Cumulative total of the category							

**Sheet No. (2/2)**  
**Details of Total Liabilities (in Jordanian Dinar and Foreign Currencies) for**  
 .....Bank, As of ( / /200 )

		Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
		From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
<b>Customer Deposits</b>	Demand						
	Saving						
	Time						
	Certificates of Deposits						
	<b>Total</b>						
Deposits of Banking System							
Cash margins							
Borrowed amounts (all kinds)							
Bonds							
Secondary loans							
Accrued interests according to due dates							
Facilities extended but not utilized, and not subject to cancellation							
Banks' obligations to support the Bank liquidity when needed							
Obligations of ordinary accounts which will represent a direct commitment							
Any other commitments							
Total Liabilities of the Category							
Cumulative total of the category							

**Sheet No. (3/1)**  
**The Form of Calculating the Ratio of Deficit or Surplus in the Total Funds**  
**of.....Bank**  
**According to the to the Maturity Ladder as of / /200**

	Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
	From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Total assets of the category						
Total liabilities of the category						
The cumulative total of liabilities for the preceding category						
The cumulative total of liabilities for the category						
Net position of the category						
The ratio of deficit or surplus for the category						
Total position of the previous category						
Total position of the current category						
The cumulative ratio of deficit or surplus						

**Sheet No. (3/2)**  
**The Form of Calculating the Ratio of Deficit or Surplus in the Total Funds in**  
**Jordanian Dinar for.....Bank**  
**According to the to the Maturity Ladder as of / /200**

	Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
	From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Total assets of the category						
Total liabilities of the category						
The cumulative total of liabilities for the preceding category						
The cumulative total of liabilities for the category						
Net position of the category						
The ratio of deficit or surplus for the category						
Total position of the previous category						
Total position of the current category						
The cumulative ratio of deficit or surplus						



**The Method for Calculating the Ratio of Deficit or Surplus for each Category  
and Cumulatively in Jordanian Dinar**

	Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
	From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Total assets of the category	M1	M2	M3	M4	M5	M6
Total liabilities of the category	T1	T2	T3	T4	T5	T6
The cumulative total of liabilities for the preceding category	Zero	K1	K2	K3	K4	K5
The cumulative total of liabilities for the category	K1=T1	K2=K1+T2	K3=K2+T3	K4=K3+T4	K5=K4+T5	K6=K5+T6
Net position of the category	N1=M1-T1	N2=M2-T2	N3=M3-T3	N4=M4-T4	N5=M5-T5	N6=M6-T6
The ratio of deficit or surplus for the category	G1/K1	G2/K2	G3/K3	G4/K4	G5/K5	G6/K6
Total position of the previous category	Zero	G1	G2	G3	G4	G5
Total position of the current category	G1=N1	G2=G1+N2	G3=G2+N3	G4=G3+N4	G5=G4+N5	G6=G5+N6
The cumulative ratio of deficit or surplus	G1/K1	G2/K2	G3/K3	G4/K4	G5/K5	G6/K6

Total assets of the category = M	
Total liabilities of the category = T	
Cumulative total of liabilities for the category = K	Represents the "Total liabilities of the category + The cumulative total of liabilities for the preceding categories"
Net position of the category = N	Represents the difference between the assets and liabilities for the category
Total position of the current category = G	Represents the " Net position of the current category + Net position of the previous categories"

**A Hypothetical Example to Demonstrate the Method of Calculating the  
Ratio of Deficit or Surplus According to the Maturity Ladder**

	Category (1)	Category (2)	Category (3)	Category (4)	Category (5)	Category (6)
	From one day to (7) days	From (8) days to one month	More than one month to (3) months	More than (3) months to (6) months	More than (6) months to one year	More than one year
Total assets of the category	50	100	150	250	350	100
Total liabilities of the category	350	200	125	100	50	25
The cumulative total of liabilities for the preceding category	0	350	550	675	775	825
The cumulative total of liabilities for the category	350	550	675	775	825	850
Net position of the category	-300	-100	25	150	300	75
The ratio of deficit or surplus for the category	-85.7%	-50.0%	20.0%	150.0%	600.0%	300.0%
Total position of the previous category	0	-300	-400	-375	-225	75
Total position of the current category	-300	-400	-375	-225	75	150
The cumulative ratio of deficit or surplus	-85.7%	-72.7	-55.6	-29.0%	9.1%	17.6%

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