

COMPARATIVE ANALYSIS OF LIQUIDITY POSITION OF BANKS: A STUDY ON SOME SELECTED CONVENTIONAL AND ISLAMIC BANKS IN BANGLADESH.

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***Abstract:** The issue of liquidity crisis drew global attention during the recent global recession after several hundred of commercial banks, including few giants, across the globe turned bankrupt following cash starvation putting the savings of their consumers at great stake. Banking sector of Bangladesh faced the ripple effect of the global financial crisis quite heavily. The issue of adequate liquidity maintenance became a great concern for the commercial banks ever since. They felt the liquidity flow issue is of paramount importance to keep the banking system smooth. The study focused on the liquidity management of six commercial banks under two categories - Conventional commercial banking and Islamic commercial banking. A comparative analysis has been carried out to compare the liquidity position of the leading banks in Bangladesh from the period of 2007 to 2011. The analysis took into account both the short-term and the long-term liquidity position and also maturity-wise liquidity position of the six banks. The researchers also analyzed the liquidity position by using the key performance indicators (KPI) of those banks and observed that in case of maintaining liquidity, Islamic banks are in better position than the conventional banks.*

***Key word:** Liquidity, Net liquidity gap, key performance indicators*

1.0 Introduction

Liquidity of a bank is known as the availability of cash to meet the demand of the customers. Probably maintaining liquidity is the most important and complex procedure for any banking organization. A bank is liquid if it can meet the daily demand of the customers. Lack of adequate liquidity is often one of the first sign that a bank is in serious financial trouble. In the wake of such crisis, banks generally lose depositor's confidence, as well as they may get warning from the central bank. The central bank may even appoint its own employees as the board of directors to monitor the cash-starved bank and once the bank goes under the direct supervision of central bank, it becomes extremely difficult to attract customers. Therefore banks should take proper care of the liquidity position. It is very important for the banks to maintain the proper amount of cash in hand, balance with Bangladesh Bank and other banks as the source of liquidity. Also the central bank has a specific rule about liquidity. About 18% of the total deposit must be maintained as Statutory Liquidity Reserve, where as for Islamic bank this rules is 10%. In this study we are trying to focus this liquidity position of few commercial banks under different categories in Bangladesh. In line with the objective of the research, we carried

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out a comparative analysis of liquidity position of two broad categories of banks - Conventional and Islamic banks.

2.0 Objectives

The principal objective of the study is to evaluate the liquidity position of some selected Conventional and Islamic Banks in Bangladesh and make a comparison of their respective liquidity position during the period of 2007 to 2011. To attain the objective, the study covers the following specific objectives:

1. To evaluate the liquidity position of selected banks in Bangladesh.
2. To carry out a comparative study of liquidity position of selected banks with some parameters used for judgment.

Our another objective is to find out whether some key performance indicators like Earning per share (EPS), Return on Asset (ROA), Return on Equity (ROE), Price Earnings Ratio (P/E ratio) and others have any influence over the liquidity position of these selected banks.

3.0 Methodology

This study is based on the 5 years data of liquidity position of the selected commercial banks in Bangladesh. We have taken six leading commercial banks and compare between Conventional banks and Islamic banks. For this purpose we have chosen three conventional banks: AB Bank Limited (ABBL), Prime Bank Limited (PBL), Eastern Bank Limited (EBL) and three Islamic commercial banks: Islami Bank Bangladesh Limited (IBBL), EXIM Bank Limited (EXIM) and Social Islami Bank Limited (SIBL). We have taken the liquidity position from the year 2007 to 2011 from the annual reports of the mentioned selected banks. The study is an empirical analysis and for the analysis our main source of information is the annual reports of the selected banks from where we have taken the yearly liquidity statement. Our analysis is divided into two segments. In the first segment we have prepared maturity wise liquidity position of individual banks, compared the liquidity position of conventional and Islamic bank and in the second segment we have used some statistical tools to analyze the liquidity position of selected banks. For analyzing data following processes are used in this study.

3.1 Data Analysis Process

Liquidity Ratio Analysis: We have started the analysis by calculating ratios like, price earnings ratio, EPS, ROE, ROA, Investment to Deposit ratio, Non performing loan to total loan and capital adequacy ratio that represent the liquidity position of selected banks.

After that we have arranged data by maturity wise liquidity position of selected banks individually to calculate year wise Net Liquidity Gap which is calculated from the difference between total assets and total liabilities. The maturity buckets are segmented

as upto 1 month maturity, 1-3 month maturity, 3-12 month maturity, 1-5 years maturity and more than 5 years maturity.

From that information we have calculated the year wise net liquidity gap of each year and bank. By using the formula, Net liquidity gap= Total assets-Total liabilities or $NLG=TA-TL$. Liquidity position of a bank can be described by following criteria.

If, Total Asset > Total liability = Surplus or Positive Liquidity Position

Total Asset < Total liability = Deficit or Negative Liquidity Position

Total Asset = Total liability = Net Liquidity Position

Positive net liquidity gap implies that the bank has sufficient assets to satisfy the liabilities of the same maturity bucket and negative net liquidity gap implies that the liabilities exceed the assets for that particular maturity bucket.

Next we calculate the short term and long term liquidity position of the selected banks.

Subsequently we have calculated the percentage of short term and long term assets and liabilities in respect of total assets and total liabilities held for each maturity bucket in respect of total assets for the particular year. We have also calculated percentage of short-term and long-term assets and liabilities for each of the year under discussion. This provides a direction of liquidity situation of the concerned banks for the years under discussion.

Finally we have selected some key performance indicators (KPI) to investigate whether these KPIs have any impact over the liquidity position of these two types of banks. The KPIs that have been chosen are EPS, ROE, ROA, P/E ratio, capital adequacy ratio, investment deposit ratio and classified investment against total investment or Non performing loan as percentage of total loans and advances.

3.2 Tools Used for Comparison

- i. Simple regression
- ii. Multiple regression
- iii. T-test and F- test

For analysis we have used SPSS 12.0 for Windows, MS Excel and own calculation.

4.0 Literature Review

With respect to the liquidity management of banking sector we undertook some studies. Some of the notable ones are discussed in this section. Liquidity refers to the ability of an institution to meet demands for funds. Liquidity management means ensuring that the institution maintains sufficient cash and liquid assets to satisfy client demand for loans and savings withdrawals, and to pay the institution's expenses. Liquidity management

involves a daily analysis and detailed estimation of the size and timing of cash inflows and outflows over the coming days and weeks to minimize the risk that savers will be unable to access their deposits in the moments they demand them. (Biety, 2003)

Optimal liquidity position is essential for smooth operation of banking system as well as the economic development of the country. According to Barua (2001) Excess liquidity hampers the profitability of banks and liquidity shortage hinders the growth of private sector. From his analysis the history of liquidity scenario of commercial banks in Bangladesh can be delineated. Before 1995, commercial banks in Bangladesh had been experienced excess liquidity; in late 1995 a sudden acute liquidity shortage and then mid 1996 onward, a tight liquidity position. During late eighties and early nineties, the banking system of our country was overburdened by excess liquidity. This was caused by economic stagnation, lack of investment demand and inefficiency of the banking system in mobilizing funds. Liquidity shortage in commercial banks that took place in Sept. 1995 was precipitated by expansion of economic activity, increase in import & investment activity, excessive government credit from the banking system and deflationary measures taken by the monetary authority during the fiscal year 1994-95. Although the severity of the liquidity shortage in commercial banks started to normalize very slowly from the second quarter of 1996, the overall liquidity position of the banking system has not yet been reached a comfortable Position.

Any commercial bank, Islamic or conventional, is required to monitor and manage its liquidity position effectively and cautiously. Islam and Chowdhury (2009) in their research concluded that Islamic Bank Bangladesh Ltd showed comparatively better performance in liquidity management then the conventional AB Bank Limited for the period 2003 to 2006 on both short term and long term basis. They also found that some profitability ratios including EPS, P/E ratio, ROA and ROE had influential role in determining the extent of liquidity.

According to the financial stability review, 2008 fundamentally sound institutions can suddenly become insolvent if they have to liquidate assets at fire-sale prices in order to meet their liquidity requirements. This illustrates the fundamental endogeneity of liquidity, which depends on confidence, *i.e.* the ability of depositors, institutions, and market participants to take risks.

Banks conventionally accomplish the supreme responsibility of being a financial mediator between the deficit and surplus unit of the economy. Anam, Hasan, Huda, Uddin and Hossain (2012) defined Liquidity risk as the excessive transaction cost, excessive loss of value and excessive exertion of time that banks have to face at the time of allocating liquidity to the third party when stipulated. Because of the unique constitutional features and regulatory conformity with the Shariah principle Islamic banks have to exert much more to manage liquidity. In contrast to the conventional banks, Islamic banks were proven to be successful to predict the liquidity risk level. As liquidity risk is an ever present hazard for both Islamic and conventional sort of banks, financial institutions need to be proficient enough to assess the extent of liquidity risk and take necessary preventive measures in order to remain safe from the liquidity crisis.

Pertaining to the issue of liquidity management practice of banks, some studies have also been accomplished outside Bangladesh. Adolphus, (2006) investigates the liquidity management practices of selected Nigerian banks. According to his study, he reached to the assessment that most banks fall somewhere between purchased liquidity and stored liquidity strategies in managing their liquidity risk. He also recommends that to survive bankers need tangency liquidity plans for their contingency liquidity needs. Otherwise sudden unexpected surge in net deposit withdrawals risks triggering a possible bank run which could eventually force a bank into insolvency.

Several studies have been conducted worldwide regarding liquidity management during financial crisis or recession. According to Cetorelli and Goldberg (2011) increased emphasis on macro-prudential supervision and regulation can have direct repercussions on liquidity management practices by global banks and may lead to the introduction of possible guidelines and constraints to such practices. Thus a significant management of liquidity on a global scale by banks with global operations, and at important idiosyncrasies, based on individual banks' choices in their global business model is mandatory to deal with financial crisis.

Cornett, McNutt, Strahan and Tehranian (2010) assert that a stable financial system, equity injections and extensions of liability guarantees can improve the liquidity condition during financial crisis. Most of the decline in bank credit production during the height of the crisis can be explained by liquidity risk exposure.

Therefore, it is reviewed that the researches done previously covered the issue of liquidity risk, liquidity management during financial crisis and liquidity management practice. Though a study has already been conducted regarding liquidity position of an Islamic and a conventional bank, but the study made comparison between only two banks (one Islamic and one conventional bank) and the selected time period was from 2004 to 2006. We want to investigate whether the liquidity scenario of these two types of banks has been changed during recent time period and what is the update of their liquidity management practice and also to make a comparison among these two types of bank's liquidity scenario.

5.0 A Comparative Analysis of the Financial Performance of the Islamic and Conventional Banks

In this section, we analyzed the financial performance of the two types of banks for the period of 2007 to 2011.

Table 5.1: Year wise Financial Performance (Conventional vs. Islamic Banks)

| Ratios | Conventional banks | | | | Islamic banks | | |
|---|--------------------|--------|---------|--------|---------------|--------|--------|
| | Years | PBL | EBL | ABBL | EXIM | SIBL | IBBL |
| Credit or investment deposit Ratios | | | | | | | |
| | 2007 | 81.81% | 102.67% | 76.66% | 96.75% | 87.89% | 87.13% |
| | 2008 | 85.38% | 94.84% | 82.71% | 93.14% | 90.42% | 89.08% |
| | 2009 | 83.45% | 93.78% | 85.31% | 92.92% | 96.08% | 87.85% |
| | 2010 | 93.16% | 95.09% | 91.95% | 98.26% | 92.08% | 90.17% |
| | 2011 | 87.23% | 99.86% | 81.48% | 92.42% | 94.65% | 89.47% |
| | Average | 86.21% | 97.25% | 83.62% | 94.70% | 92.22% | 88.74% |
| Ratio of classified loans against total loans and advances or investments | | | | | | | |
| | 2007 | 1.35% | 4.31% | 4.31% | 1.58% | 4.93% | 2.93% |
| | 2008 | 1.76% | 3.30% | 2.99% | 1.88% | 4.38% | 2.39% |
| | 2009 | 1.29% | 2.46% | 2.75% | 2.68% | 3.19% | 2.36% |
| | 2010 | 1.18% | 1.99% | 2.11% | 1.99% | 4.76% | 1.77% |
| | 2011 | 1.37% | 1.91% | 2.82% | 1.63% | 3.93% | 2.71% |
| | Average | 1.39% | 2.79% | 3.00% | 1.95% | 4.24% | 2.43% |
| Return on Assets (ROA) | | | | | | | |
| | 2007 | 1.99% | 1.10% | 3.41% | 2.00% | 1.09% | 0.84% |
| | 2008 | 1.30% | 1.68% | 3.12% | 1.83% | 1.19% | 1.27% |
| | 2009 | 2.37% | 2.34% | 3.52% | 2.19% | 1.24% | 1.34% |
| | 2010 | 2.22% | 3.19% | 3.08% | 3.54% | 2.39% | 1.47% |
| | 2011 | 2.07% | 2.52% | 0.93% | 1.65% | 2.72% | 1.35% |
| | Average | 1.99% | 2.17% | 2.81% | 2.24% | 1.73% | 1.25% |
| Earnings Per Share (EPS) | | | | | | | |
| | 2007 | 6.16 | 3.02 | 59.37 | 34.76 | 17.6 | 30.04 |
| | 2008 | 4.33 | 3.45 | 71.79 | 40.95 | 17.2 | 43.3 |
| | 2009 | 7.83 | 5 | 104.91 | 50.21 | 18.39 | 55.1 |
| | 2010 | 5.66 | 5.36 | 115.31 | 3.77 | 2.15 | 4.46 |
| | 2011 | 4.7 | 5.57 | 33.6 | 2.18 | 1.81 | 4.84 |
| | Average | 5.736 | 4.48 | 76.996 | 26.374 | 11.43 | 27.548 |
| Price earnings ratio (Times) | | | | | | | |
| | 2007 | 15.01 | 26.44 | 10 | 9.02 | 28.79 | 17.88 |
| | 2008 | 12.46 | 17.07 | 7.97 | 7.85 | 12.49 | 10.78 |
| | 2009 | 8.34 | 12.89 | 13.71 | 7.52 | 16.75 | 10.73 |
| | 2010 | 16.6 | 24.16 | 15.77 | 11.34 | 24.53 | 13.29 |
| | 2011 | 9.47 | 11.82 | 18.96 | 12.76 | 14.51 | 11.27 |
| | Average | 12.376 | 18.476 | 14.61 | 9.698 | 19.414 | 12.79 |

Source: Annual reports

From the above table it is obvious that, for some cases Islamic banks perform better than the conventional banks and vice versa. From the profitability ratios we see that on an average the selected conventional bank's performance is better than the Islamic banks. In case of EPS, Islamic banks are showing better outcome. So from these outcomes it is difficult to conclude concerning which types of banks are performing better. In the later sections we will do further analysis to accomplish a conclusion.

5.1 Analysis of Liquidity Position of Conventional Banks

Our analyses of liquidity position of six banks are divided into conventional and Islamic bank's liquidity position. Appendix-A: Table-5.1.1 stated the maturity wise net liquidity gap of three conventional banks. Net liquidity gap of conventional banks increases each year. It indicates that selected conventional banks are maintaining positive or surplus liquidity more than the previous years or their assets are sufficient to cover the liabilities. But the growth rate of net liquidity gap is fluctuating, it increases in the year 2008 and 2009 but decreases in 2010 and 2011.

Year wise decomposition of net liquidity gap Appendix-A: Table-5.1.2 shows that, in case of short term liquidity the conventional banks faced deficit liquidity position except year 2008. Short term liquidity position is calculated by adding the figures of up to 1 month, 1-3 months and 3-12 months liquidity position of selected banks. On the other hand, long-term liquidity gap for the conventional banks are positive for the whole period. It indicates that the overall short-term liquidity management was not as good as its management of long-term liquidity. That is why the conventional banks were unable to satisfy the current liability requirement by using the available current assets. In 2011, the situation became worse than the previous four years. However, in 2008 the conventional banks were able to maintain current assets sufficient to meet the current liabilities. So we can conclude that the conventional banks should give more emphasis on maintaining short term liquidity.

Already we have found that the Short term assets of the conventional banks during the period under study were not sufficient to meet the short-term obligations. Also the percentage of short term assets in total assets figure shows that on an average 66% of short term assets are in total assets of conventional banks(Appendix-A: Table-5.1.3)

The growth rates of short term assets respect to total assets and short term liabilities to total liabilities shows huge fluctuating figures for the total study period. The reason is that we are taking three different banks and all of the bank's total short term assets are not enough to cover the short term liabilities.

If we analyze the long term assets and long term liabilities in respect to total assets and total liabilities respectively, we find that average growth rate of percentage of long term liabilities are more than percentage of long term assets. Also over the period the conventional banks were facing positive long term liquidity position. However in 2008 and 2009 the growth rates are negative. (Appendix-A: Table-5.1.4)

5.2 Analysis of Liquidity Position of Islamic Banks

After analyzing the net liquidity position of Islamic banks we can say that the total liquidity positions of three Islamic banks are quite satisfactory. The amount is increased year on year. But the growth rate of net liquidity gap is fluctuating it increased in 2009 (45%) but after that it decreased in 2010(32%) and 2011 (29%) (Appendix-A: Table-5.2.1)

Both for the short term and long term liquidity gap the Islamic banks faced positive liquidity position. So we can say that the Islamic banks could manage both the short term

and long term assets appropriately to satisfy the debts. This indicates a good sign for the Islamic banks that they can maintain the liquidity position more effectively than the conventional banks. (Appendix-A: Table-5.2.2)

Again, from Appendix-A: Table-5.2.3, we can see that both short term assets and short term liabilities of the Islamic Banks experienced positive growth rate during the period under study. The Islamic Banks had more short term assets in its assets portfolio than long term assets. In the same way it had more short term liabilities than long term liabilities.

If we consider the long term situation for the Islamic Banks, we observe that the IB's average growth rate of percentage of both long term assets and liabilities is negative. That indicates that although the total figures are positive but growth rate of long term assets and liabilities are not satisfactory. So the banks should give more concentration on this issue. (Appendix-A: Table-5.2.4)

5.3 Analysis of Comparative Liquidity Position of Conventional and Islamic Banks

Comparative analysis will start with the comparison of average liquidity position of different banks. In Table-5.3.1, we have calculated 5-year average net liquidity gap of the conventional banks and Islamic banks on basis of maturity bucket. From the analysis, we have the following findings:

- The conventional banks were facing negative liquidity gap in short term liquidity position and positive in long term liquidity gap. Whereas the Islamic banks are in positive liquidity position in both the short and long term.
- However in case of long term position both type of banks have maintained positive or surplus liquidity position.
- In case of average net liquidity gap, Islamic banks are maintaining higher amount of liquidity in compare with conventional banks.

Table-5.3.1: Maturity-bucket wise 5-years Average Net liquidity Gap of Conventional (CB) and Islamic Banks (IB)

| | 5-years average net liquidity gap of the CBs (in million Tk. & figures are rounded to nearest whole number) | 5-years average net liquidity gap of the IBs (in million Tk. & figures are rounded to nearest whole number) |
|-------------------|---|---|
| Up to 1 month | 7,611 | (4,919) |
| 1-3 months | (12,120) | (2,270) |
| 3-12 months | (5,350) | 17,066 |
| 1-5 years | 14,971 | 10,498 |
| More than 5 years | 24,741 | 11,824 |
| Total | 29,852 | 32,199 |

Source: Own calculation

Refer to the Table-5.3.2 the average of total liquidity gap of CBs (Tk. 29,852 million) are lower than that of IBs (Tk. 32,199 million). Again, if we consider the growth rate of total liquidity gap, we find that although the Islamic banks experienced higher amount of total liquidity gap than the conventional banks, total liquidity gap of the CBs (38.55%) experienced more growth rate than the IBs (25.10%). It indicates that the CBs are gradually improving its overall liquidity position.

Table-5.3.2: Year-wise Growth Rate of Total Liquidity Gap of CBs & IBs

| Year | Total liquidity gap of CBs (in million Tk.) | Growth Rate | Total liquidity gap of IBs (in million Tk.) | Growth Rate |
|----------------|---|---------------|---|---------------|
| 2007 | 13,496 | | 17,849 | |
| 2008 | 18,153 | 34.51% | 20,917 | 17.19% |
| 2009 | 30,266 | 66.73% | 30,379 | 45.23% |
| 2010 | 38,948 | 28.69% | 40,168 | 32.22% |
| 2011 | 48,398 | 24.26% | 51,682 | 28.66% |
| Average | 29,852 | 38.55% | 32,199 | 25.10% |

Source: Own calculation

From the Table-5.3.3 it is evident that the IBs managed its short-term liquidity situation more efficiently than that of the CBs for the period under study. From the data of this table, we can say that the conventional banks should focus on managing short term liquidity gap in proper manner. If we consider the average short term liquidity gap of two banks, we have found that the conventional banks are failed to meet the short term liquidity requirement as they have negative average short term liquidity gap (Tk. 9,859 million). On the other hand the Islamic banks have positive short term liquidity gap throughout the study period. So they are well organized and efficient in maintaining short term liquidity.

Table-5.3.3: Comparison of Short Term Liquidity Gap (Figures are in Million Tk.)

| Year | Conventional Banks | Islamic Banks |
|----------------|--------------------|---------------|
| 2007 | (7,795) | 11,895 |
| 2008 | 3,534 | 10,439 |
| 2009 | (1,619) | 13,247 |
| 2010 | (10,035) | 3,348 |
| 2011 | (33,381) | 10,154 |
| Average | (9,859) | 9,817 |

Source: Own calculation

Refer to the Table-5.3.4 if we compare the long term liquidity gap of IBs and CBs, we can say that both the banks are efficient in maintaining long term liquidity as the long term liquidity of both type of banks are showing positive figure. However, the total amounts of long term liquidity gap of CBs are higher than the IBs.

Table-5.3.4: Comparison of Long Term Liquidity Gap (Figures are in Million Tk.)

| Year | Conventional Banks | Islamic Banks |
|----------------|--------------------|---------------|
| 2007 | 21,291 | 5,654 |
| 2008 | 14,619 | 10,478 |
| 2009 | 31,885 | 17,132 |
| 2010 | 48,983 | 36,820 |
| 2011 | 81,780 | 41,527 |
| Average | 39,712 | 22,322 |

Source: Own calculation

Table-5.3.5 above furnishes the comparison of two banks under study from the perspective of having short term assets and short term liabilities; where we have found that percentage of short term assets and liabilities that the CBs maintained in its portfolio was higher than those of the IBs. It implies that the CBs are focusing more on short term assets and liabilities to long term. However, the IBs in spite of its focus more on short term assets and liabilities showed poor performance in the management of short term liquidity, which suggests that the IBs should devise some new strategies to ensure efficient management of its short-term liquidity situation.

Table-5.3.5: Comparison of Short Term Assets & Short Term Liabilities

| Year | Percentage of short term assets in total assets | | Percentage of short term liabilities in total liabilities | |
|----------------|---|---------------|---|---------------|
| | CBs | IBs | CBs | IBs |
| 2007 | 67.89% | 54.97% | 77.74% | 54.07% |
| 2008 | 73.83% | 61.69% | 82.45% | 62.49% |
| 2009 | 65.39% | 59.73% | 73.33% | 61.04% |
| 2010 | 60.97% | 59.17% | 75.80% | 63.62% |
| 2011 | 61.13% | 66.50% | 69.02% | 70.89% |
| Average | 65.84% | 60.41% | 75.67% | 62.42% |

Source: Own calculation

However, from the following table, we can see that the IBs are focusing on the management of long term assets and liabilities to a higher extent than the CBs. From Table no 14 we find that, Islamic banks are maintaining more long term assets (39.59%) and liabilities (37.58%) than that of the conventional banks.

Table-5.3.6: Comparison of Long Term Assets & Long Term Liabilities

| Year | Percentage of Long term assets in total assets | | Percentage of Long term liabilities in total liabilities | |
|----------------|---|---------------|---|---------------|
| | CBs | IB | CBs | IBs |
| 2007 | 32.11% | 45.03% | 22.26% | 45.93% |
| 2008 | 26.17% | 38.31% | 17.55% | 37.51% |
| 2009 | 34.61% | 40.27% | 26.67% | 38.96% |
| 2010 | 39.03% | 40.83% | 24.20% | 36.38% |
| 2011 | 38.87% | 33.50% | 30.98% | 29.11% |
| Average | 34.16% | 39.59% | 24.33% | 37.58% |

Source: Own calculation

6.0 Is liquidity Position Influenced by Key Performance Indicators (KPIs)?

In this section we will identify some key performance indicators of liquidity position of a bank. Then we will perform both simple and multiple regression analysis to state whether this key performance indicators have any impact in determining the liquidity position of a bank. First of all we will do simple regression analysis to state the relationship between liquidity and each of the key performance indicators for both of the Islamic and conventional bank. Then we will do multiple regression analysis to state which performance indicators have more impact on liquidity position. We have chosen the following ratios as key performance indicators.

- Price-Earnings (P/E) Ratio
- Earnings per Share (EPS)
- Return on Equity (ROE)
- Return on Assets (ROA)
- Investment-Deposit ratio or Advance-Deposit ratio (ADV/DEP)
- Percentage of classified investments against total investments (Classing/TINV) or Non-performing loans as percentage of total loans & advances (NPL/ADV)
- Capital Adequacy Ratio (CAR)

Table 6. 1.1: Simple Regression Analysis of Islamic Banks

| Variables | Regression equation | r ² | F test value | P value of F test |
|-----------------|-----------------------------|----------------|--------------|-------------------|
| TLG vs. P/E | TLG=9216-319.6 P/E | 59.31% | .255 | .702 |
| TLG vs. EPS | TLG=4021+33.50EPS | 98% | 0.007 | .945 |
| TLG vs. ROE | TLG=16834-90247 ROE | 34.5% | 2.054 | .388 |
| TLG vs. ROA | TLG=-7547+706539.5 ROA | 96.9% | 63.014 | .080 |
| TLG vs. ADV/DEP | TLG=-99957+113953.2 ADV/DEP | 87.9% | 15.521 | .158 |
| TLG vs. NPL/INV | TLG=7639-100508 NPL | 76.3% | .134 | .776 |
| TLG vs. CAR | TLG=61814-502882 CAR | 4.8% | 1.101 | .485 |

6.1 Islamic Banks

Now we will estimate simple regression analysis for the Islamic banks. Here we select total liquidity gap as dependent variable and key performance indicators or KPIs for each year as the independent variable. The following table (table 6.1.1) shows the results from simple regression analysis of the three conventional banks.

From the table (table 6.1.1) we see that total liquidity gap of the Islamic banks are mostly influenced by Earnings per share (EPS) as the r² is 98%. This indicates that 98% variations in total liquidity gap can be explained by EPS. But this result is not statistically significant as P-value is more than 0.05.

Return on Assets (ROA) shows very high degree of influence over liquidity as r²= 96.9%. This indicates that 96.9% variations in total liquidity gap can be explained by ROA. And this result is statistically significant at 92% confidence level.

Investment or advance to deposit ratio (ADV/DEP) can explain 87.9% variation in the liquidity position as r²= 87.9%. But this result is not statistically significant as P-value is more than 0.05.

Capital adequacy ratio and ROE shows very little relationship with liquidity.

So by evaluating the results we can articulate that ROA has great impact over liquidity than the other indicating variables.

Table 6.1. 2: Multiple Regression Analysis of Islamic Banks

| Models | Equation | r ² | F test | P value of F test |
|---------|---|----------------|--------|-------------------|
| Model A | TLG=-3521-103.58P/E-22.467EPS | 75.9% | 7.310 | 0.120 |
| Model B | TLG=-2845+93.54P/E+257361ROA | 99.9% | 1.223 | .044 |
| Model C | TLG=726-18.4EPS+7959.8ROE | 70.9% | 2.441 | .0291 |
| Model D | TLG=469-16.44EPS+124553.6ROA | 70.2% | 5.710 | .149 |
| Model E | TLG=-95-5.08P/E+10181ROE | 59.1% | .257 | .795 |
| Model F | TLG=-40732+46378.07ADV/DEP+47445.5NPL/INV | 60.8% | 1.552 | .392 |

From multiple regression analysis, (table 6.1.2) we find that total liquidity gap of the Islamic bank has a very high degree of positive relationship with price earnings ratio (P/E) and Return on Assets (ROA). Because the explanatory power r^2 for these ratios is 99.9% which indicates that 99.9% of the variation in total liquidity gap can be explained by the combined variations of P/E and ROA. And the result of this Model B is also statistically significant as the P-value of F-test at 95% confidence level is less than .05. The other models Model C, D, E and F are not much reliable as P-value of F-test for these two models was very high in respect of the other models and their explanatory power is less than 75%.

Model A shows 75.9% explanatory power indicating that P/E and EPS can explain 75.9% variation in the liquidity position but this result is not significant. Though EPS shows very high degree of influence with liquidity while considered in isolation by simple regression, but in combination with other variables it shows very little relationship.

So by evaluating the overall results we can say that Model B provides better explanations than the other models. That means ROA and P/E has the most influencing power over liquidity of the Islamic banks during the period under study.

6.2 Conventional Banks

Now we will estimate simple regression analysis for the conventional banks. Here we select total liquidity gap as dependent variable and key performance indicators or KPI's as independent variable. The following table (Table 6.2.1) shows the results from simple regression analysis of the three conventional banks.

Table 6.2.1: Simple Regression Analysis of Conventional Banks

| Variables | Regression Equation | r^2 | F test value | P value of F test |
|-----------------|--------------------------|-------|--------------|-------------------|
| TLG vs. P/E | TLG=31305-1507.8 P/E | 91.3% | 0.21868 | .034 |
| TLG vs. EPS | TLG=7222+42.42EPS | 72.6% | 0.159 | .759 |
| TLG vs. ROE | TLG=-1038+357938 ROE | 16.9% | 0.710 | .554 |
| TLG vs. ROA | TLG=4407+174271.1ROA | 95% | 0.026 | .899 |
| TLG vs. ADV/DEP | TLG=63656-620059 ADV/DEP | 77.9% | 8.035 | .216 |
| TLG vs. NPL/INV | TLG=15454-292433 NPL/INV | 42.2% | 0.406 | .639 |
| TLG vs. CAR | TLG=3964+38188.58 CAR | 9.6% | 0.002 | .973 |

From the table (table 6.2.1) we see that total liquidity gap of the conventional banks are mostly influenced by Price Earnings ratio (P/E) as the r^2 is 91.3%. This indicates that 91.3% variations in total liquidity gap can be explained by P/E ratio. However, P-value of F-test confirms the validity of the model at 97% confidence level.

The variable Return on Assets explained 95% variations in Total liquidity gap. But the result is not significant statistically as the P-value is more than 0.05.

Earnings per share and investment deposit ratios are showing moderate variations as r^2 is more than 72%. But statistically these results are not significant.

So from simple regression analysis we can say that the P/E ratio exerts great extent of impact over liquidity position of conventional banks.

Table 6.2.2: Multiple Regression Analysis of Conventional Banks

| Models | Equation | r^2 | F test | P value of F test |
|---------|--|-------|--------|-------------------|
| Model A | TLG=-2130+860.7P/E+14.418EPS | 88.8% | 16.889 | .056 |
| Model B | TLG=30969-69467.7ROE+154902.4ROA | 91.2% | 21.816 | .044 |
| Model C | TLG=55949-34434.6ADV/DEP-558858NPL/INV | 60.8% | 1.552 | .392 |
| Model D | TLG=24585-199457ROA-285899NPL/INV | 78.5% | 3.653 | .215 |
| Model E | TLG=-1347+866.2P/E+124553ROA | 85.8% | 13.119 | .071 |
| Model F | TLG=-16.448EPS+124553ROA | 70.2% | 5.710 | .149 |

From multiple regression analysis, (table 6.2.2) we find that total liquidity gap of the conventional bank has a very high degree of positive relationship with Return on Assets (ROA) and Return on Equity (ROE). Because for this ratios value of r^2 is 91.2% which indicates that 91.2% of the variation in total liquidity gap can be explained by the combined variations of ROE and ROA. And the result of this Model B is also statistically significant as this is less than .05.

Moreover, price earnings ratio (P/E) and Earning per share had also substantial impact on liquidity gap with 88.8% explanatory power. Though these profitability indicating variables (EPS and ROE) showed little association when we considered them in isolation by simple regression, but from multiple regression results we can understand that jointly they had an enormous influence in determining liquidity position of the conventional banks. The other two indicating variables (ROE and P/E) show similar results with simple regression.

Another two indicating variables with noteworthy explanatory power of 85.8% are P/E and ROE (model E). Where ROE individually shows very little relationship with liquidity, but in a combination with P/E it shows high degree of positive relationship. However, from P value of F-test, we see that both models, A and model B has the highest degree of statistical significance as P value of F-test for both of the model is less than 0.05 at 95% confidence level. Model E is also statistically significant as it is significant at 93% confidence level. So by evaluating overall scenario we can say that model A and model B provides better explanation then the other models.

Model C, D and F are not much reliable as P-value of F-test for these two models was very high in respect of the other models and their explanatory power is less than 80%.

So the overall results indicate that ROA and ROE collectively exerts great degree of influence over liquidity

Findings

After analyzing the liquidity position of the conventional and the Islamic banks we have observed following findings.

- a. Overall liquidity positions of the Islamic banks are better than conventional banks.
- b. If we consider the short term and long term liquidity position of selected banks, we have found that in both terms Islamic banks are more efficient than conventional banks.
- c. However the total amount of liquidity is higher for conventional bank as we have chosen country's largest conventional banks. These bank's total assets and liabilities are higher than the Islamic banks (except Islami Bank Bangladesh Limited). Although in this analysis we have found the Islamic bank's liquidity position is more organized than that of the conventional banks.
- d. From simple regression analysis we can see that ROA exerts great impact over liquidity of Islamic bank and for conventional bank the most influential indicator is P/E ratio.
- e. From multiple regression analysis it is apparent that ROA and P/E collectively exert great influence over liquidity of Islamic bank whereas ROA and ROE together exerts immense control over liquidity of conventional bank.
- f. So from overall findings from regression analysis it can be articulated that profitability ratios exercise enormous impact over liquidity for both types of banks.

Conclusion

Our analysis is extended to the evaluation of the liquidity position of some selected Conventional and Islamic Banks in Bangladesh and compare among their liquidity position for the period of 2007 to 2011. From the entire analysis, we have found that Islamic Banks showed comparatively better performance in liquidity management than the Conventional Banks for the period of 2007 to 2011 both on short term and long term basis. However, in short term the IBs had positive liquidity gap on an average while the CBs had the opposite scenario. In long term analysis both the banks had experienced in positive liquidity gap. In other words, both the banks could efficiently keep the long term assets to satisfy long term liabilities as and when they would be falling due. However, in case of shorter term though the IBs had average positive liquidity gap but if we consider single year we found that in 2004 & 2005, it had experienced in negative liquidity gap. Therefore both the banks should take steps accordingly to manage and improve the short term liquidity position. However, from regression analysis we reached to the assessment that the profitability ratios like P/E ratio, ROA and ROE individually and collectively exert enormous impact over liquidity for both types of banks.

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Appendix: A

Table-1: Year-wise net Liquidity Gap of The Conventional Banks (Amounts are Rounded & Expressed in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| Up to 1 month | (504) | 12,562 | 5,659 | 5,474 | 14,864 |
| 1-3 months | (4,310) | (2,127) | (4,361) | (20,988) | (28,815) |
| 3-12 months | (2,982) | (6,901) | (2,917) | 5,479 | (19,430) |
| 1-5 years | 17,030 | 12,427 | 12,002 | 16,847 | 16,547 |
| More than 5 years | 4,261 | 2,192 | 19,883 | 32,136 | 65,232 |
| Total | 13,496 | 18,153 | 30,266 | 38,948 | 48,398 |
| Growth rate | | 35% | 67% | 29% | 24% |

Source: Annual reports of PBL, EBL, ABBL & Own calculation

Table-02: Year-wise Decomposition of Net Liquidity Gap of the Conventional Bank (Amounts are Rounded & Expressed in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | (7,795) | 21,291 | 13,496 |
| 2008 | 3,534 | 14,619 | 18,153 |
| 2009 | (1,619) | 31,885 | 30,266 |
| 2010 | (10,035) | 48,983 | 38,948 |
| 2011 | (33,381) | 81,780 | 48,398 |
| Average | (9,859) | 39,712 | 29,852 |

Source: Own calculation

Table -03: Analysis of Short Term Assets and Short Term Liabilities of the Conventional Banks

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|--------------|---|--------------|
| 2007 | 68% | | 78% | |
| 2008 | 74% | 8.8% | 82% | 6.1% |
| 2009 | 65% | -11.4% | 73% | -11.1% |
| 2010 | 61% | -6.8% | 76% | 3.4% |
| 2011 | 61% | 0.3% | 69% | -8.9% |
| Average | 66% | -2.3% | 76% | -2.6% |

Source: Own calculation

Table -04: Analysis of Long Term Assets and Long Term Liabilities of the Conventional Banks

| Year | Percentage of Long term assets in total assets | Growth Rate | Percentage of Long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 32% | | 22% | |
| 2008 | 26% | -19% | 18% | -21% |
| 2009 | 35% | 32% | 27% | 52% |
| 2010 | 39% | 13% | 24% | -9% |
| 2011 | 39% | 0% | 31% | 28% |
| Average | 34% | 7% | 24% | 12% |

Source: Own calculation

Table-05: Year-wise Net Liquidity Gap of Islamic Banks (Amounts are Rounded & Expressed in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| Up to 1 month | 8,080 | 2,748 | 473 | (12,123) | (23,775) |
| 1-3 months | (4) | 4,278 | (4,723) | (7,284) | (3,616) |
| 3-12 months | 4,120 | 3,412 | 17,496 | 22,755 | 37,546 |
| 1-5 years | 8,452 | 9,693 | 9,059 | 16,089 | 9,197 |
| More than 5 years | (2,798) | 786 | 8,073 | 20,731 | 32,331 |
| Total | 17,849 | 20,917 | 30,379 | 40,168 | 51,682 |
| Growth rate | | 17% | 45% | 32% | 29% |

Source: Annual reports of IBBL, SIBL, EXIM and own calculation

Table-06: Year-wise Decomposition of Net Liquidity Gap of Islamic Banks (Amounts are Rounded & Expressed in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | 11,895 | 5,654 | 17,849 |
| 2008 | 10,439 | 10,478 | 20,917 |
| 2009 | 13,247 | 17,132 | 30,379 |
| 2010 | 3,348 | 36,820 | 40,168 |
| 2011 | 10,154 | 31,527 | 51,682 |
| Average | 9,817 | 20,322 | 32,199 |

Source: Own calculation

Table -07: Analysis of Short Term Assets and Short Term Liabilities of Islamic Banks

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 55% | | 54% | |
| 2008 | 62% | 23% | 62% | 23% |
| 2009 | 60% | 23% | 61% | 21% |
| 2010 | 59% | 23% | 64% | 23% |
| 2011 | 67% | 21% | 71% | 20% |
| Average | 60% | 23% | 62% | 22% |

Source: Own calculation

Table -08: Analysis of Long Term Assets and Long Term Liabilities of Islamic Banks

| Year | Percentage of Long term assets in total assets | Growth Rate | Percentage of Long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 45% | | 46% | |
| 2008 | 38% | -15% | 38% | -18% |
| 2009 | 40% | 5% | 39% | 4% |
| 2010 | 41% | 1% | 36% | -7% |
| 2011 | 33% | -18% | 29% | -20% |
| Average | 40% | -7% | 38% | -10% |

Source: Own calculation

Appendix-B**Table-1.1: Year-wise Net Liquidity Gap of PBL (Figures are in Million Tk.)**

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| Up to 1 month | 1,001 | 3,767 | 1,526 | 565 | 995 |
| 1-3 months | 302 | 314 | 759 | 539 | 396 |
| 3-12 months | 35 | 5,881 | 1,150 | 6,245 | 870 |
| 1-5 years | 3,054 | 145 | 1,132 | 5,078 | 461 |
| More than 5 years | 882 | (3,410) | 7,178 | 572 | 16,416 |
| Total | 5,273 | 6,697 | 11,745 | 12,998 | 19,139 |
| Growth rate | | 27% | 75% | 11% | 47% |

Source: Annual Reports of Prime Bank Ltd

Table-1.2: Year-wise Decomposition of Net Liquidity Gap of PBL (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | 1,338 | 3,936 | 5,273 |
| 2008 | 9,962 | (3,265) | 6,697 |
| 2009 | 3,435 | 8,310 | 11,745 |
| 2010 | 7,349 | 5,650 | 12,998 |
| 2011 | 2,262 | 16,877 | 19,139 |
| Average | 4,869 | 6,302 | 11,170 |

Source: Own calculation

Table-1.3: Analysis of Short Term Assets and Short Term Liabilities of PBL

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 63.20% | | 65.88% | |
| 2008 | 74.85% | 18.44% | 60.44% | -8.26% |
| 2009 | 62.73% | -16.19% | 66.21% | 9.55% |
| 2010 | 60.84% | -3.01% | 62.94% | -4.94% |
| 2011 | 59.86% | -1.60% | 64.95% | 3.20% |
| Average | 64.29% | | 64.08% | |

Source: Own calculation

Table-1.4: Analysis of Long Term Assets and Long Term Liabilities of PBL

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 36.80% | | 34.12% | |
| 2008 | 25.15% | -31.66% | 29.92% | -12.29% |
| 2009 | 37.27% | 48.18% | 33.79% | 12.93% |
| 2010 | 35.06% | -5.94% | 35.23% | 4.24% |
| 2011 | 40.14% | 14.49% | 35.05% | -0.49% |
| Average | 34.89% | | 33.62% | |

Source: Own calculation

Table- 2.1: Year-wise Net Liquidity Gap of EBL (Figures are in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| Up to 1 month | (525) | 7,437 | 3,822 | 12,184 | 9,204 |
| 1-3 months | (4,863) | (3,649) | (5,482) | (14,269) | (28,110) |
| 3-12 months | (2,947) | (14,232) | (7,017) | (6,066) | 3,573 |
| 1-5 years | 9,444 | 10,975 | 7,984 | 9,804 | 15,675 |
| More than 5 years | 2,602 | 4,203 | 9,128 | 10,430 | 14,066 |
| Total | 3,711 | 4,733 | 8,434 | 12,084 | 14,407 |
| Growth rate | | 28% | 78% | 43% | 19% |

Source: Annual Reports of Eastern Bank Ltd

Table-2.2: Year-wise Decomposition of Net Liquidity Gap of EBL (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | (8,335) | 12,046 | 3,711 |
| 2008 | (10,444) | 15,178 | 4,733 |
| 2009 | (8,678) | 17,112 | 8,434 |
| 2010 | (8,151) | 20,234 | 12,084 |
| 2011 | (15,334) | 29,741 | 14,407 |
| Average | (10,188) | 18,862 | 8,674 |

Source: Own calculation

Table-2.3: Analysis of Short Term Assets and Short Term Liabilities of EBL

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 61.05% | | 88.38% | |
| 2008 | 72.96% | 19.50% | 93.07% | 5.31% |
| 2009 | 63.88% | -12.44% | 87.36% | -6.13% |
| 2010 | 63.79% | -0.13% | 86.46% | -1.03% |
| 2011 | 65.64% | 2.89% | 89.67% | 3.71% |
| Average | 65.46% | | 88.99% | |

Source: Own calculation

Table-2.4: Analysis of Long Term Assets and Long Term Liabilities of EBL

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 38.95% | | 11.62% | |
| 2008 | 34.25% | -12.05% | 6.93% | -40.36% |
| 2009 | 36.12% | 5.45% | 12.64% | 82.31% |
| 2010 | 36.21% | 0.24% | 13.54% | 7.14% |
| 2011 | 34.36% | -5.09% | 10.33% | -23.67% |
| Average | 35.98% | | 11.01% | |

Source: Own calculation

Table-3.1: Year-wise Net Liquidity Gap of ABBL (Figures are in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| up to 1 month | -979.23 | 1356.70 | 311.15 | -7275.10 | 4665.28 |
| 1-3 months | 250.98 | 1208.68 | 362.03 | -7257.54 | -1101.35 |
| 3-12 months | -69.19 | 1450.86 | 2950.14 | 5300.32 | -23873.15 |
| 1-5 years | 4532.18 | 1307.91 | 2886.67 | 1964.43 | 411.15 |
| More than 5 years | 776.85 | 1398.36 | 3576.53 | 21134.41 | 34750.77 |
| Total | 4511.59 | 6722.51 | 10086.52 | 13866.51 | 14852.70 |
| Growth rate | | 49.01% | 50.04% | 37.48% | 7.11% |

Source: Annual Reports of AB Bank Ltd

Table-3.2: Year-wise Decomposition of Net Liquidity Gap of ABBL (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | (797) | 5,309 | 4,512 |
| 2008 | 4,016 | 2,706 | 6,723 |
| 2009 | 3,623 | 6,463 | 10,087 |
| 2010 | (9,232) | 23,099 | 13,867 |
| 2011 | (20,309) | 35,162 | 14,853 |
| Average | (4,540) | 14,548 | 10,008 |

Source: Own calculation

Table-3.3: Analysis of Short Term Assets and Short Term Liabilities of ABBL

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 78.34% | | 85.68% | |
| 2008 | 89.63% | 14.40% | 92.22% | 7.64% |
| 2009 | 69.48% | -22.48% | 72.97% | -20.87% |
| 2010 | 59.38% | -14.54% | 74.04% | 1.46% |
| 2011 | 59.33% | -0.08% | 80.42% | 8.62% |
| Average | 71.23% | | 81.07% | |

Source: Own calculation

Table-3.4: Analysis of Long Term Assets and Long Term Liabilities of ABBL

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 21.66% | | 14.32% | |
| 2008 | 10.37% | -52.10% | 7.78% | -45.69% |
| 2009 | 30.52% | 194.22% | 27.03% | 247.55% |
| 2010 | 40.62% | 33.09% | 25.96% | -3.94% |
| 2011 | 40.67% | 0.11% | 19.58% | -24.57% |
| Average | 28.77% | | 18.93% | |

Source: Own calculation

Table-4.1: Year-wise Net Liquidity Gap of IBBL (Figures are in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| Up to 1 month | 10,366 | 4,780 | 4,807 | 2,600 | 3,080 |
| 1-3 months | 301 | 5,989 | 5,207 | 8,238 | 7,008 |

| | | | | | |
|--------------------|---------------|---------------|---------------|---------------|---------------|
| 3-12 months | 1,270 | 871 | 6,181 | 4,196 | 8,730 |
| 1-5 years | 717 | 564 | 1,416 | 4,149 | 5,151 |
| More than 5 years | (812) | 1,856 | 2,494 | 4,311 | 3,831 |
| Total | 11,841 | 14,060 | 20,106 | 23,494 | 27,800 |
| Growth rate | | 19% | 43% | 17% | 18% |

Source: Annual Reports of Islami Bank Bangladesh Ltd

Table-4.2: Year-wise Decomposition of Net Liquidity Gap of IBBL (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | 11,937 | (95) | 11,841 |
| 2008 | 11,640 | 2,420 | 14,060 |
| 2009 | 16,195 | 3,910 | 20,106 |
| 2010 | 15,034 | 8,460 | 23,494 |
| 2011 | 18,818 | 8,983 | 27,800 |
| Average | 14,725 | 4,736 | 19,460 |

Source: Own calculation

Table-4.3: Analysis of Short Term Assets and Short Term Liabilities of IBBL

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 50.08% | | 47.07% | |
| 2008 | 58.99% | 17.79% | 57.45% | 22.05% |
| 2009 | 55.65% | -5.66% | 53.71% | -6.50% |
| 2010 | 64.77% | 16.39% | 64.00% | 19.15% |
| 2011 | 65.74% | 1.48% | 65.59% | 2.48% |
| Average | 59.05% | | 57.56% | |

Source: Own calculation

Table-4.4: Analysis of Long Term Assets and Long Term Liabilities of IBBL

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 50.00% | | 53.00% | |
| 2008 | 41.00% | -18.00% | 43.00% | -18.87% |
| 2009 | 44.00% | 7.32% | 46.00% | 6.98% |
| 2010 | 35.00% | -20.45% | 36.00% | -21.74% |
| 2011 | 34.26% | -2.10% | 34.00% | -5.56% |
| Average | 40.85% | | 42.40% | |

Source: Own calculation

Table-5.1: Year-wise Net Liquidity Gap of SIBL (Figures are in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| up to 1 month | 1,083 | 1,903 | 334 | 628 | 4,445 |
| 1-3 months | (912) | 89 | (497) | 567 | (794) |
| 3-12 months | 525 | 54 | 3,008 | 748 | 202 |
| 1-5 years | 1,362 | 207 | 1,110 | 120 | 2,728 |
| More than 5 years | (393) | (385) | (400) | 2,135 | 2,831 |
| Total | 1,665 | 1,867 | 3,556 | 4,199 | 9,412 |
| Growth rate | | 12.13% | 90.42% | 18.08% | 124.17% |

Source: Annual Reports of Social Islami Bank Ltd

Table-5.2: Year-wise Decomposition of Net Liquidity Gap of SIBL (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | 696 | 969 | 1,665 |
| 2008 | 2,046 | (178) | 1,867 |
| 2009 | 2,846 | 710 | 3,556 |
| 2010 | 1,943 | 2,256 | 4,199 |
| 2011 | 3,853 | 5,559 | 9,412 |
| Average | 2,277 | 1,863 | 4,140 |

Source: Own calculation

Table-5.3: Analysis of Short Term Assets and Short Term Liabilities of SIBL

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 78.03% | | 80.67% | |
| 2008 | 81.88% | 4.92% | 80.03% | -0.80% |
| 2009 | 82.17% | 0.36% | 82.38% | 2.94% |
| 2010 | 82.16% | -0.02% | 85.11% | 3.32% |
| 2011 | 71.81% | -12.60% | 75.68% | -11.08% |
| Average | 79.21% | | 80.77% | |

Source: Own calculation

Table-5.4: Analysis of Long Term Assets and Long Term Liabilities of SIBL

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 21.97% | | 19.33% | |
| 2008 | 18.12% | -17.48% | 19.97% | 3.33% |
| 2009 | 17.83% | -1.63% | 17.62% | -11.78% |
| 2010 | 17.84% | 0.08% | 14.89% | -15.50% |
| 2011 | 28.19% | 57.99% | 24.32% | 63.33% |
| Average | 20.79% | | 19.23% | |

Source: Own calculation

Table-6.1: Year-wise Net Liquidity Gap of EXIM (Figures are in Million Tk.)

| | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap | Net liquidity Gap |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Year | 2007 | 2008 | 2009 | 2010 | 2011 |
| up to 1 month | (3,370) | (3,934) | (4,668) | (15,351) | (31,300) |
| 1-3 months | 607 | (1,799) | (9,433) | (16,089) | (9,830) |
| 3-12 months | 2,325 | 2,487 | 8,306 | 17,811 | 28,614 |
| 1-5 years | 6,373 | 8,922 | 6,533 | 11,820 | 1,317 |
| More than 5 years | (1,593) | (685) | 5,979 | 14,284 | 25,668 |
| Total | 4,343 | 4,989 | 6,717 | 12,475 | 14,469 |
| Growth rate | | 14.89% | 34.63% | 85.71% | 15.99% |

Source: Annual Reports of EXIM Bank Ltd

Table-6.2: Year-wise Decomposition of Net Liquidity Gap of EXIM (Figures are in Million Tk.)

| Year | Short term liquidity gap | Long term liquidity gap | Total liquidity gap |
|----------------|--------------------------|-------------------------|---------------------|
| 2007 | (738) | 4,780 | 4,043 |
| 2008 | (3,247) | 8,236 | 4,989 |
| 2009 | (5,794) | 12,511 | 6,717 |
| 2010 | (13,629) | 26,104 | 12,475 |
| 2011 | (12,516) | 26,985 | 14,469 |
| Average | (7,185) | 15,723 | 8,539 |

Source: Own calculation

Table-6.3: Analysis of Short Term Assets and Short Term Liabilities of EXIM

| Year | Percentage of short term assets in total assets | Growth Rate | Percentage of short term liabilities in total liabilities | Growth Rate |
|----------------|---|-------------|---|-------------|
| 2007 | 60.98% | | 67.72% | |
| 2008 | 62.00% | 1.67% | 71.99% | 6.29% |
| 2009 | 62.50% | 0.81% | 75.07% | 4.28% |
| 2010 | 61.52% | -1.56% | 82.70% | 10.17% |
| 2011 | 65.35% | 6.22% | 84.42% | 2.07% |
| Average | 62.47% | | 76.38% | |

Source: Own calculation

Table-6.4: Analysis of Long Term Assets and Long Term Liabilities of EXIM

| Year | Percentage of long term assets in total assets | Growth Rate | Percentage of long term liabilities in total liabilities | Growth Rate |
|----------------|--|-------------|--|-------------|
| 2007 | 39.00% | | 32.00% | |
| 2008 | 38.00% | -2.56% | 28.00% | -12.50% |
| 2009 | 37.00% | -2.63% | 25.00% | -10.71% |
| 2010 | 38.00% | 2.70% | 17.00% | -32.00% |
| 2011 | 35.00% | -7.89% | 16.00% | -5.88% |
| Average | 37.40% | | 23.60% | |

Source: Own calculation