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A Comparative Study on Bank's Profitability before, during and after Crises

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ABSTRACT

The purpose of this research is to examine the outcome of liquidity crunch on bank profitability. Comparison of bank's profitability has been done for a panel of 30 Pakistani banks over the period of 2003 to 2010. Focus has been kept on total bank profits and its components: Gross Profit, ROE and ROA. Three eras have been selected as 2003-2006: Before crisis, year 2007-2008 as crises era and year 2009-2010 as after crisis era. The Independent Sample T-Test analysis results suggest that bank's profitability has a direct relationship with liquidity crunch and the profitability of banks has been affected more by the liquidity crunch. It has been confirmed that Gross profit of banks has been decreased before, during and after crisis era. This means liquidity crunch has affected gross profit of banks to a major extent. No changes occurred in the ROA and ROE of banks between before, during and after crisis. The study is beneficial to banking sector to overcome the uncertainties that decrease bank profitability in liquidity crunch.

Keywords: Liquidity, Profitability, Liquidity Crunch, ROA, ROE, Gross Profit

JEL Classification: G21, O16

Introduction

The great recession, started by the banking crisis of 2007-2008, revitalizes the question of how vulnerable bank profits are in the business cycle. The banking crisis has affected the value of banks assets on large scale all over the globe. This trim down started in US banks in the shape of subprime mortgages and quickly spread to banks assets in other regions and shattered money markets globally (Bolt, Haan, Hoeberichts, & Oordt, 2010).

Banking crisis can be defined as times in which there is unnecessary demand for liquidity in the money market. Based on the research banking crisis is the stage in which log of the money market stress surpasses its observed limit that is 98.5 %. This fallout in a broader identification than using market actions such as government involvement is too much in the banking division to classify banking crisis (Von-Hogen & Tai-Kung, 2007).

The economy has suffered since the Great Depression of 1930s has come and still faces its consequences in the form of bank credit crunch of 2007 that chase influenced the

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global real economy. This melt down have resulted in the fall down of big financial institutions, bank runs, mergers and acquisition, the bailout of banks by government and depression in money markets around the world. Does liquidity crunch affect the bank's profitability?

Now the main question is whether this credit crunch will originate a new torrent of bank losses, which would come on peak of the losses already, sustained by the reduction of bank possessions.

There are four techniques by which the credit crisis change into a brutal financial crisis. One is borrowers balance sheet effects, this states that when value of assets falls, banks and financial institutions assets destroy and at the same time, lending principles and limits stiffen. This leads to hypothetical attack on sales, lowering down prices and contracting financial support more. Second, the lending control can dehydrate when financial institutions and banks turn out to be anxious about their upcoming entry to money markets and start assembling funds. Third, bank runs of major banks can began an unexpected corrosion of bank funds. Last one is network effects can come up when financial institution at the same time acting as lenders and borrowers. The significance of banks profitability can be appreciated at both the micro and macro levels of the economy.

It is certain that demand of banks in the financial system increase and profitability expansion also turns out to be more significant (Ali, Akhtar, & Ahmed, 2011).

Before global meltdown Pakistan's banking sector has stayed the best rising division. Inflows of foreign direct investment came into large proportion. Subsequently it has declined into generally as of pilling up of Nonperforming finance. This inconsistent position is viewed because of large contribution of the funding and banking division to the general lending through FY 2004-06. The cause after Pakistani fall down financial system is the fall by the management and extreme management credit borrowing is generally intended for the liquidity crisis in the country. The Pakistan's financial system experienced a phase of major shakiness and a dropping of the major macroeconomic pointer. The timings of the crisis and Pakistan's response to domestic developments might seem contradictory to a layman.

Also, the higher KIBOR rate and incapability to assemble of superior intensity of deposits are badly causing troubles for the banking sector.

Literature Review

The profitability of the bank calculated by its ROA, ROE and Gross profit. Return on assets is defined as how profitable a bank is comparative to its total assets. ROA presents a thought as to how competent supervision is at using its assets to make profits and its return on total equities (ROE) is defined as the Return on equity tells how much revenue a bank makes in contrast to the total sum of shareholder equity. Gross profit is defined as the percentage of sales outstanding after the direct overheads, and is calculated as the gross profit divided by the sales.

Pakistan's banking sector is made up of 53 banks. In 2002-2007 Pakistan's accelerated financial extension was strengthened by a dynamic banking sector and classified as top executing sector, the assets of banking sector increased to over $60 billion, its profitability remains high, funding is quite expanded and risks associated to banking system were managed well. Profitability of banking sector declined sharply in 2008 due to several reasons, revealing the failing financial situation of the country. Profitability of 22 banks listed on Karachi stock exchange decline sharply. Pakistan's financial system declined severely over the period of 2008.

The financial market turnover in 2007 and 2008 has escort to the cruelest financial crisis since the immense Depression and pressure to have greater impact on the financial system. The exploration of the lodging bubbles forced financial institutions to write down numerous hundred billion dollars in shocking funding caused by mortgage slackness. At the same moment, the money market capitalization of the main banks turns down double.

Liquidity threat taking place from the expected failure of a bank to finance increases on the assets side or to hold decreases liabilities side of the balance sheets is considered a major factor of banks profitability. The credit sector plays a vital role in the risk allocation. It has larger expected return than other banks assets. Therefore, it is anticipated that there would be a positive relationship between liquidity and profit ability (Bourke, 1989).

In liquidity crunch period it can be easily studied that how assets influence the viable position of banks (Berger & Bouwman, 2008).

Banks rate of profit has been significantly declined from the start of liquidity crunch era. This major turn down in the rate of profit appear to have been part of a global inclination throughout this phase, distressing almost all capitalist states.

Liquidity was an important factor during the recent financial crisis. Due to shortage of funding many banks got bankrupt and many banks were affected by bank runs. Huge numbers of mergers were taken place in banking Crisis period i.e. from 2008-2009 (Bordeleau & Graham, 2010).

Financial markets were in pressure, balance sheets of banks showed negative figures due to declining assets value which in turn declined profitability.

Banking sector may be accountable to liquidity crisis when its asset prices fall down; its financing channels got worsen and face complexity in operation assets. In 2007 liquidity crunch, many large banks like Merrill Lynch, Lehman brothers, Indy Mac Bank and others faced these circumstances and exposed to a bank run (Gaytan, & Ranciere, 2003).

Banks profitability is pro-cyclical. This pro-cyclicality might threaten to economic permanence in severe recessions and have a continuous negative impact on bank profitability (Bolt, Haan, Hoeberichts, & Oordt, 2010).

Banking sector leads to a severe liquidity crisis because of factors like lending channels, borrower’s balance sheet effects, network effects and bank runs of financial institutions (Brunnermeier, 2009).

If huge portion of savers withdrawal ready money at that stage banks may need to execute illiquid assets. By this action banks faces loss of value and may be liable to liquidity distress (Aspachs, Nier, & Tiesset, 2005).

Variation in bank profitability is caused due to variation in credit risk, when credit exposure is bigger than the declining mode of business efficiencies in general. The configuration of liquidity makes banks fragile and susceptible to bank runs (Duca & McLaughlin, 1990).

Proposition

It has been assumed that the bank profitability has a direct relationship with liquidity crunch and the profitability of banks has been affected more by the liquidity crunch. Based on the arguments above the following proposition is developed and tested:

P: Bank profitability has affected during and after crisis.

Research Methods

Description of data and econometrical methodology

In this empirical research it has been explained that how bank profitability has affected before, during and after the liquidity crunch. The purpose of this research is to examine the effect of pre during and after the crisis on bank profitability ratios and to find out how banks improved their profitability during the crisis and were capable to hold their enhanced performance after that. The research is based on KSE-100 index listed companies (30 banks).

This source has preferred because the firm financial statement is easily accessible on the internet and on the bank annual report so there is no need to send any special request to the banking authorities in order to view the financial statements. Secondary data has been used so the tools which were needed are company's current balance sheets and income statements. Independent sample T-test has been deployed to conclude the findings.

Results

Findings and Interpretation of the results

The annual financial statements and ratios of 30 banks for the period 2003-2010 have been investigated. The independent sample T-test has been deployed for investigating ROE, ROA and Gross Profit for the period 1. 2003-2006 (period before crisis), 2. 2007-2008 (the Crisis Period) and 3.2009-2010 (Period after crisis).

Table 1: Group Statistics for Before Crisis vs. During Crisis

	Era	N	Mean	Std. Deviation	Std. Error Mean
GP	Before Crises	119	114.73	128.13	11.74
	During Crises	60	78.55	83.14	10.73
ROE	Before Crises	120	12.28	21.89	1.99
	During Crises	60	8.98	17.86	2.30
ROA	Before Crises	120	12.42	27.40	2.50
	During Crises	60	8.24	31.68	4.09

The findings of this paper as shown in table 1 that reveal that all of the outlined constructs of bank profitability which include gross profit, ROE and ROA are with better statistics for the period of before crises than for the crises period of Pakistan.

Table 2: Group Statistics for Before Crisis Vs After Crisis

	Era	N	Mean	Std. Deviation	Std. Error Mean
GP	Before Crises	119	114.73	128.13	11.74
	After Crises	60	64.60	62.78	8.10
ROE	Before Crises	120	12.28	21.89	1.99
	After Crises	60	5.00	21.48	2.77
ROA	Before Crises	120	13.42	27.40	2.50
	After Crises	60	12.94	26.04	3.36

Table 2 also portrays that all the proxies of bank profitability is found better for the period of before crises in comparison of the period after crises.

Table 3: Group Statistics for During Crisis Vs After Crisis

	Era	N	Mean	Std. Deviation	Std. Error Mean
GP	During Crises	60	78.55	83.14	10.73
	After Crises	60	64.60	62.78	8.10
ROE	During Crises	60	8.98	17.86	2.30
	After Crises	60	5.00	21.48	2.77
ROA	During Crises	60	8.24	31.68	4.09
	After Crises	60	12.94	26.04	3.36

Table 3 shows some interesting findings while comparison was done for during crises period and after crises period. It was found that the two proxies of banks profitability clearly went into a pity condition for the period of after crises than for the crises period which reflects the presence of backwash once the crises is banged. Thus the findings which are shown in table 1, 2 and 3 confirm the acceptance of our proposition that Bank profitability has affected during and after crisis.

Conclusion

This paper clearly goes with the idea that whenever the internal and external crisis hammers the organizations then there is always the impact of the event, which goes on as the aftermaths and so to speak as the past glitches. Thus, the organization should formulate and implement ERM activities to cow down the menace of unavoidable situations (Subhani & Osman, 2011).

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