Loan Loss Provision, Bank Valuation and Discretion: A Comparative Study of Islamic and Conventional Banks of Pakistan

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APPROVAL SHEET

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Dedication

To my parents for their endless love, attention and pray throughout my thesis. Thanks for your great support and continuous care.

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To my husband and father in law for their commitment, support and patience.

Declaration

I do hereby declare that this thesis has been solely the result of research work done by me. This dissertation is the result of my own independent research work and analysis with the support of my supervisor(s). I also certify that this thesis has neither similarity to any previously submitted thesis nor contain any copied material from any other source except where due reference is made in the text. I will be fully responsible for any act of academic dishonesty like pledgerism, if detected in the submitted research based on literature.

Syeda Dur-e-Najaf Zaidi

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Abstract

This study aims to investigate the impact loan loss provisions on bank valuation among Islamic and conventional banks of Pakistan for the period of 2005-2015. We use fixed effect model to examine that how Islamic banks price discretionary loan provision differently as compared to their conventional counterparts. We decompose loan loss provision into discretionary and non-discretionary loan loss provisions to find out the differential valuations in both types of banking sectors. We use two-stage value relevance analyses for the pricing of the components of loan loss provisions. We find out that the pricing of loan loss provision is different in both types of banks as there is a difference in their lending volume polices. We also find differences in the valuations of the two components of loan loss provision due to the differences in the underlying theories of both forms of banks. However, Islamic banks do lower pricing of discretionary loan loss provision as compared to the conventional counter parts. Furthermore, investors of both types of banks consider an increase in loan loss provisions as a value relevant.

Chapter 1

Introduction

1.1 Background

Banking industry contributes in supporting economic growth by accommodating various services to the economy. Therefore, there is a need to consider soundness of banking sector to implement monetary policies. Banking sector is a fundamental component of financial sector to manage financial resources all over the world. Banking sector is one of the most essential business in the global economy. Therefore, banking sector is considered as the backbone for the economy of every country.

Banking activities are crucial for healthy economy, which leads towards the list of developed nations of the world. Industrial revolution during 18th century has expanded the trade and business activities by the inception of large-scale production. Banking gained importance as an essential facility to promote business operations.

Banking sector of Pakistan had experienced enormous challenges since its inception. In the beginning, sound banking system was absented in Pakistan, so the government was unable to control its financial system. But nowadays, the banking industry of Pakistan is growing day by day. Because of the worse political and socioeconomic conditions, Pakistan experienced the extreme shortage of resources. At that time, well trained staff and professionals were not available, thus poor quality of products and services were provided to the customers. Currently, the banking industry of Pakistan is becoming attractive as Pakistani banks are providing good services to their customers (Ahmad, 2010).

A significant attempt was made in the mid-1980s to convert the banking system to an Islamic banking system. It was a bold and comprehensive exercise, making Pakistan one of the few countries in the world to try to implement interest free banking at the national level. However, it was not successful due to certain constitutional and regulatory constraints at that time. Nonetheless, that attempt was a significant step in the evolution of the Islamic banking system in the country. Technically, it was the most advanced model compared

to any other model being practiced anywhere in the world at that time, and provided an important reference point for other countries looking to introduce Islamic banking systems.

Religious scholars in Pakistan strongly demanded interest free economy during 1999 so Islamic banking was launched in 1999. Islamic banking was re-launched in 2000, since Pakistan learned many lessons in the era of 1980. In 2002, policymakers and stakeholders decided to try again to re-launch Islamic banking in Pakistan, considering not just the lessons learnt from the failure in Pakistan in the 1980s, but also the experiences of other countries currently known for their lead role in Islamic finance sector. Consequently, in 2001, Al Meezan Investment Bank was established as a first Islamic bank. In Pakistan, Meezan bank got the very first license of Islamic banking in 2002 and officially became the first Islamic bank of Pakistan.

In 2002, Meezan Bank started its operations and at the same time it becomes a full-fledged Islamic commercial bank. It became a pioneer for Islamic banking system in Pakistan by establishing its new branches across the country in 2003.Later on, many other full fledge Islamic banks were established and currently various conventional banks are also providing Islamic products and services by opening Islamic windows. Islamic banks are considerably different from their conventional counterparts as Shariah compliant finance does not allow Islamic banks to charge interest payments (riba). So, in the beginning of 21st century, Islamic banking practices were introduced in different segments of the economy.

One of the renewed concerning areas is the appropriate level of loan loss provision, which can be defined as the resources which banks compute and set aside as provisions to offset future losses on outstanding loans. The level of this provision is represented by the reserve for bad and doubtful debts and disclosed in the annual accounts of the banks. It assures safety and soundness of the bank and transparency of financial statements.

Total loan loss provisions can be characterized into discretionary and non-discretionary components (Beaver and Engle, 1996). Non-discretionary loan loss provision (NLLP) is accumulated from objective events associated with default risks, which lie beyond the management's control. On the other hand, discretionary loan loss provision (DLLP) is dependent on bank managers' manipulation and their discretionary motives for earning management (Beaver and Engle, 1996).

Therefore, non-discretionary loan loss provisions are comparatively free from managerial discretion while discretionary loan loss provisions may provide opportunity to management to manipulate earnings. Consequently, it leads to a reduction in the perceived reliability of earnings because both components are treated as an indicator for earning management.

Non-financial firms like banks, can use reserves or provisions to manipulate their earnings as banks have incentives to smooth income by using provisions. (Beaver et al. 1989; Moyer, 1990; Scholes et al. 1990; Wahlen, 1994; Beatty et al. 1995; Beaver and Engle, 1996).

Islamic banks utilize discretionary loan loss provisions to manipulate their earnings but the magnitude of discretionary accruals is substantially lower as compare to conventional banks. The importance of scrutinising the issue can be examined from the framework of Islamic banking, which is originated from the fact that Islamic banks should not manipulate their earnings as compare to their conventional counterparts. Because there is a difference between the underlying theoretical framework of Islamic and conventional banks as Islamic banks are based on Shariah principles which play the vital role in Islamic bank practices.

It is important for Islamic banks to emphasize on the fact that they should not follow the similar framework like conventional banks for the practices of earnings management. Accordingly, for the activities which involve earnings management, Islamic banks must be more aware and reluctant then other firms, institutions and as well as conventional banks, although earnings management and manipulation is accomplish through accounting practices of GAAP standards (generally accepted accounting principles). Islamic banks should follow all the laws made by them, thus the practices of earnings management are considered as unethical as they manage to portray a distorted picture. Because one of the distinctive characteristic of Islamic banks is to consider the ethical values, while earnings management is a manipulation of financial numbers either to misguide the stake holders or to maneuver contractual outcomes as it is clearly seen that both incentives are attached with concept of opportunistic behaviour which is forbidden is Islam.

Investors generally rely on financial reports for firm or bank valuation which is based on their perceptions regarding reported accounting parameters or indicators as value relevant. According to Barth (2000), Barth et al. (2001) and Wyatt (2008) value relevant reflects that the set of information included in the research is

substantially related with that group of information which investors used for firm valuation like share prices, stock returns or market capitalization.

During the evaluation of corporate stock, investors use financial statements, if they provide useful information to them. Therefore, from an investor's viewpoint, that information is important, which is helpful for investment decisions (Omokhudu & Ibadin, 2015). Fundamentally, many banks use financial statements as major avenue to convey financial information to their shareholders and public (Nassar, Uwuigbe, Uwuigbe & Abuwa, 2014). Financial information is shown as relevant in the case, when it effects the user's decisions while making an opinion (Uwalomwa, Uwuigbe & Okorie, 2015). Value relevance is basically the ability of financial information to reveal some information for capturing bank value. It could be assessed through statistical relations among the information disclosed by financial reports and stock returns (Shilpa Vardia, 2016).

Value relevance entails the ability of accounting number to explain the market price of shares. According to the research of Ball & Brown (1968) and Beaver (1968), value relevance of accounting information is hinged on the assumption that the market is efficient. Market efficiency is not an absolute term, it is issue of degree, that how quickly accounting numbers reflected in market price of shares. The market is said to be efficient when all available information in the market is reflected in the security price (Fama, 1991). To a large extent, the security price should be explained by the accounting numbers, in that the financial reports give clue as to what the future profitability of companies would be, this in turn directs the future dividend expectation by the investors. The future dividend expectation by the investors is the driver of the market price of share, in that; the market price of share is the present value of the future dividend expected by the investors (Beaver, 1998).

The value relevance of some private information can be deduced by calculating the returns which can be generated by executing trading strategies based on accounting information. Thus, investors might use published accounts to earn extraordinary results as market information is inefficient. It indicates that if portfolios are created because of accounting information related to abnormal returns then accounting information can be relevant in bank valuation.

In this area, still there is a need of research to examine the impact of aggregate loan loss provisions on the bank valuation as value relevant information. Therefore, this study examines that whether there is any effect

of such provisions on the bank valuation and also examine how Islamic banks price discretionary loan provision differently as compared to their conventional counterparts.

1.2 Gap in the Literature

Several studies have been conducted regarding loan loss provisions of banks at the international level e.g., Ozili, 2017; and Wall and Koch, 2003. But, there is a limited literature on this issue in the context of Pakistan. Several studies highlighted the role of LLP in bank earnings management, regulatory capital management, signalling and tax management (Lobo & Yang, 2001; Kanagaretnam et al., 2004; Kanagaretnam et al. 2005; Kanagaretnam et al. 2009; Anandarajan et al. 2007; Ozili, 2015; and Ozili, 2017). Though, some of the studies examined the provisioning under different auditor type, reputation and specialism (Dahl, 2013; Kanagaretnam et al. 2010 and Ozili, 2017). Second, to our best knowledge this study is the first of its kind that examines the effect of loan loss provision on bank valuation through inclusion of discretion for the data of Pakistan. No previous study is found that investigates whether the loan loss provision has an impact on the bank value by using its components. Furthermore, our study extends the accounting literature as well as earning management literature by focusing on the differential impact of discretionary and non-discretionary loan loss provisions.

1.3 Research Objectives

The study has three main objectives which are as follows:

- To analyse the impact of loan loss provision on bank value of Islamic and conventional banks of Pakistan.
- To inspect whether Islamic banks do the lower pricing of discretionary loan loss provisions as compared to their conventional counterparts in Pakistan.
- To investigate whether there is an association between non-discretionary loan loss provision and bank value for Islamic and conventional banks of Pakistan.

1.4 Research Questions

The study formulated following research questions in order to analyse its objectives:

- Is there any association between loan loss provisions and bank value in case of Islamic and conventional banks?
- Is the pricing of discretionary loan loss provision and bank value lower for Islamic banks than conventional banks?
- Is there any association between non-discretionary loan loss provision and bank value for Islamic banks and conventional banks?

1.5 Significance of the Study

This study throws light on the affiliation among loan loss provision and bank value which contributes in the field of literature. The study will be informative and significant for investors, bank managers and banking regulators. It will help them in making earning management decisions for bank valuation and in examining value relevance of loan loss provisions. It will also help the investors and bank managers and regulators to control and manage the negative variables which are harmful for banking industry.

Moreover, this study is also of a great significance as no formal study has been conducted in this area in Pakistan to date though. The study will also make significant contribution to existing literature by filling gaps and exploring new dimensions for the banking sector of Pakistan. The generalization of the present study would be a great contribution to the broad knowledge of professors and research students as it will provide them opportunities to explore further dimensions in this area of study.

1.6 Scheme of the Study

This chapter describes introduction, gap in the literature, objectives, research questions and significance of the study. Chapter 2 deals with the different literature including the theories related to our study, regarding the past studies. Methodology, estimation techniques, data, and description of variables has been described in Chapter 3 while Chapter 4 presents empirical results and analysis. Lastly, conclusions, recommendations and limitation of the study are provided in Chapter 5.

Chapter 2

Literature Review and Hypothesis Development

2.1 Introduction

Many studies have been carried out to provide evidences regarding the use of loan loss provisions and the motivations of managers behind its use. Prior researches document that managers use loan loss provision for the signalling and income smoothing of financial statements and the purpose behind that is to signal private information to the users of financial reports [Lobo and Yang (2001); Ahmed et al. (1999)]. The studies of Moyer (1990), Scholes et al. (1990), Collins et al. (1995) and Beatty et al. (1995) find that banks may exercise loan loss provision for discretion. Numerous studies e.g., Whalen (1994), Beaver and Engel (1996), Ahmed et al., (1999), Elliot et al. (1991) or Griffin and Wallach (1991) shed light on the determinants of loan loss provision and provide evidences considering the goals for which banks use loan loss provisions.

2.2 Review of the Relevant Literature

The key role of banks is to create deposits and further invest them for profit making and banks normally have numerous investment opportunities for that purpose. Generally, commercial banks invest theirs funds in securities and by providing loans to the customers, whereas Islamic banks and their customers invest their funds mutually through three different modes of finance i.e. Musharkah, Mudarbah and Muarabah. Even though, the modes of finance used by both banks are drastically different from each other, the risk in cases of both types of banks might not be accumulated because some of their borrowers and investors are unable to reimburse their debt obligations to the banks (Zoubi and Al-Khazali, 2007).

Thus, banks must create reserves for loan loss provisions to cushion future losses and for that purpose management must calculate the amount of loan losses in Islamic modes of finance, which might not be accumulated in future on accrual basis as such losses are recognized as a valuation allowance. Thus, the reserves for loan and investment losses shows the aggregate amount of future losses of an average outstanding balance in the three modes of the Islamic finance. And the addition in the balance of that allowance should be

stated in the income statement or profit and loss account as loan loss provision at the end of a specific period. Due to some past and present occurrences, if expected losses exceeds than the allowance of losses, then bank must raise its allowance for losses which must be stated as an expense in the income statement of a bank. The reserves for loan loss provision reduces because of the write-off loans or of investments in the Islamic modes of finance. Allowance of loan loss provision increases due to the recovered amount that had been already written off in the past. Generally, loan loss provision shows the amount stated in banks' financial statements and provides a zone to management for manipulation. Consequently, if bank misrepresented loan loss provisions than this will bring about misrepresentation of assets, earnings and capital.

Hussain et al. (2002) document that generally, banks acquire financial accounting rules and regulations made by the International Accounting Standards Board formerly named as International Accounting Standards Committee (IASC). In accordance with the IAS no. 30, bank should reveal the following:

- Bank should disclose the changes and developments in the provisions for loan losses and advances throughout the period. Bank should individually reveal the amount realised as an expense for bad and doubtful loans and advances, the write-off amount and the previous write-off amount which has been recovered during a period.
- Bank should disclose the total amount of provisions for impairment losses on loans and advances on the balance sheet in the period.
- It should reveal the total amount of provision for losses on loans and advances without accruing interest (IASC, 1991, IAS 30, para. 43).

Accounting standards provide guidelines for loan loss provisions but management should use its own verdict and discretion to determine loan loss provisions. The percentage of aggregate loans and that amount of investments in Musharkah, Mudarbah and Murabah which might not be accumulated in the future must be estimated by management so that adjustments can be made in reserve balance just before showing new approximation. Therefore, bank management has a great freedom for estimating loan loss provisions.

Banks categorize their loans and make provisions according to the prudential regulation R-8, which is issued by State Bank of Pakistan. The rescheduling of non-performing loans shall not be change until the terms and

conditions of rescheduling are fulfil for one year and at least 10% of the outstanding principal amount is recovered in form of cash. Until 50% of the amount is recovered in cash, the unrealized mark-up on loans shall not be taken into income statement. If mark-up or principal amount is overdue by 90 days than 25% amount will be realized, if overdue by 180 days than 50% amount will be realized and if overdue by 360 days than 100% amount will be realized.

Comparatively loan loss provisions are considered as big accruals for conventional banks and thus have a great influence on a bank's earnings and regulatory capital. The objective of such provisions is to manage and control the loan loss allowance of a bank to show expected financial losses on their loan portfolios. Thus, bank managers have an incentive to employ discretion over loan loss provisions as these are the accruals use to manipulate earnings for income smoothing. Accounts manipulation can be made within or outside the limits of accounting laws and standards. Once it is used outside the laws and standards then it is considered as a fraud and when exercised within the limits than it can be considered as earnings management because the intention is to affect those earnings or returns which are in the form of earnings per share.

Wahlen (1994) gives additional illustration regarding a positive association between impairment provisions and market value of bank, who also decomposed the reported provisions of banks into discretionary and non-discretionary components. Wahlen (1994) stated that bank management tend to increase discretionary loan loss provision when the possibilities for future cash flows going to be better and because of that, equity investors explicate those components as positive information despite of the fact that provisions reduce current earnings of bank. Thus, bank managers might employ discretionary loan loss provision to deliver positive signals related to future cash flows.

If impairment provisions represent losses expected from independent impaired assets, then spontaneously they should be negatively valued by equity investors of banks. The results of former studies regarding the association among impairment provisions and market value of bank are quite surprising, GG Bank value and future cash flows are limited only to banks with low regulatory capital which are strongly exposed to loan default risk.

According to Beaver and Engle (1996) loan loss provisions could be explicitly decomposed into discretionary and non-discretionary components and demonstrate that each is priced differently. Non-discretionary loan loss provision is accumulated through a set of some informational items like, non-performing loans and net loan charge-offs and they indicate expected future loan losses as these are those default risks and bad debts which lies beyond the control of bank management. The discretionary loan loss provision is accumulated by taking the difference of total allowance and the accumulated non-discretionary loan loss provision and shows adjustments or manipulation by managers in the allowance account due to discretionary motives (Beaver and Engle, 1996). Bank managers usually exercise discretion to raise loan loss provisions then investors interpret that management increase discretionary loan loss provision at the time when outlook of future cash flows improves (Wahlen, 1994).

The valuation of discretionary and non-discretionary loan loss provision is either positive or negative (Beaver and Engle, 1996). The pricing of non-discretionary loan loss provision is expected to be negative because it shows the destruction of the loan assets as principal amount has not been remitted. On the other hand, the pricing of discretionary loan loss provision is predicted to be positive as discretionary behaviour changes the market based evaluation of expected net benefits (Beaver and Engle, 1996). To disclose private information and for tactical and purposes bank management might use its reporting discretion which includes both an information constituent and non-information cconstituent (Beaver et al. 1989). The unexpected provision is proxy for the discretionary component as it depends on other value relevant variables (Wahlen, 1994).

Islamic banks acknowledge their earnings and profit distributions levels to manage their loan loss provisions. Islamic banks publish small amount of loan loss provisions in contrast to their competitive conventional banks because the fact is that they increase their loan loss provisions at the time when their earnings are high whereas conventional banks reduce their loan loss provisions when their earnings are high. Hence discernment of bank managers is very important to estimate loan loss provisions as they possess some private financial information about default risks inbuilt in the loan portfolio (Wahlen, 1994). Consequently, it might be difficult for investors, auditors and supervisors to acquire all information of management regarding loan portfolio for each span as it is too much expensive for them. So, bank managers can exercise discretion to avoid regulatory capital constraints when the provision for certain losses has been concluded (Wahlen, 1994; Moyer, 1990).

When a book value of bank proxies for expected future earnings then book value is value-relevant as it assumes that a bank is a going concern means that bank will be able to continue operating for a period which is sufficient to achieve its commitments, obligations and objectives (Ohlson, 1995). Evidence document that when the losses are temporary then book value performs a vital role along with losses to for bank valuation. So, in that situation its role can also be used a proxy for abandonment real option or for the expected future earnings (Collins et al. 1999).

According to the financial reporting standards, bank managers can use loan loss provisions to show changes in expected loan loss provision. This procedure provides them a great opportunity to do discretion during the estimation of loan loss provision. Managers exercise discretion and for that purpose they use their underlying motives so many previous studies suggest four motivations regarding loan loss provisions i.e. to smooth income, signaling, capital regulation and tax considerations while the empirical evidence is contradictory for tax consideration purpose. For this contradictory evidence, the one probable justification is that such multiple motivations might affect the relationship between discretionary behaviour and hypothesized motivations. And because of that, the discretionary behaviour may ascribe to only one motivation while that such behaviour may be more suitable to another motivation. On the other hand, the observed behaviour may not attach to a specific motivation because of the contradictory influence of the other motivation.

Many prior studies investigated the discretion done by managers of a bank regarding loan loss provisions (e.g., Moyer, 1990; Beatty et al. 1995; Collins et al. 1995; Scholes et al. 1990). Former studies found that generally banks use loan loss provisions to attain some goals, like smoothing of earnings, to affect share prices, signaling of expected future earnings, management bonus, and to fulfil the legal reserve requirements. Former studies provide mixed evidence about capital and earning management through loan loss provisions of banks. Moyer (1990) and Beatty et al. (1995) found a negative relationship among loan loss provisions and capital ratios and that is regularly use with loan loss provisions to minimize the anticipated regulatory costs. Such anticipated costs are related with the contravening capital requirements of the banks. On the contrary, Collins et al. (1995) in a study do not have any evidence in favour of capital management. Moreover, they provide evidence regarding a positive relationship among loan loss provisions and earnings for income smoothing whereas, Beatty et al. (1995) does not have any evidence for the purpose of income smoothing.

Previous studies e.g., Hasan and Hunter (1994), Bhat (1996), Lobo and Yang (2001) and Hasan and Wall (2004) report that banks' managers manipulate earnings through loan loss proviso ions and the purpose behind that is income smoothing and signalling of financial statements.

In a related study, Hasan and Hunter (1994) documented that some factors affect loan loss provisions significantly which is in line with income smoothing theory. Findings from the study of Collins et al. (1995), Beaver and Engel (1996) and Ahmed et al. (1999) deduced that loan loss provisions are used by banks for capital management to fulfil regulatory requirements. In another related study Beaver and Engel (1996) report that an incline in loan loss provision is related to a decline in share prices whereas in another study, Healy (1985) and Degeorge et al. (1999) concluded that bank management manage earnings to raise their compensation allowance.

Wahlen (1994) document that when bank managers raise discretionary loan loss provision of a bank, then there is a possibility of improvement in the future cash flows of a bank. In an earlier study, Beaver and Engel (1996) also observed a positive effect of loan loss provisions on stock prices while on contrary to this, Ahmed et al. (1999) do not found a positive association among one year ahead earnings and discretionary loan loss provisions.

As bank managers use loan loss provisions to achieve some underlying motives which are mentioned above, so some evidences regarding such multiple motivation theories are discussed below. Firstly, our focus is on the use of loan loss provision to signal managers' superior financial information. Then we discuss some incentives which banks management possess for using loan loss provision for income smoothing and in the last, we shed light on the use of loan loss provision for earning and capital management.

2.2.2.1 Signaling Theory

The asymmetric information among the bank managers and investors might probably be a reason of the mispricing of the individual securities (Akerlof, 1970). And if a bank is undervalued than managers convey their private information as they have incentives to signal information, because their benefit is knotted with firm value. One probable method to do that is the selection of accounting estimates by a bank or a firm. Since loan loss provision is the main accrual for the banks and banks managers substantially exercise discretion

during estimating it so, bank managers feasibly use discretionary loan loss provision for signaling purpose (Kanagaretnam et al. (2004). And the results of that study support the findings of a study conducted by Ahmed et al. (1999) and Wahlen (1994).

Signaling theory shows that the underlying rationale of the bank managers for signaling is the disclosure of the adverse selection problem (Akerlof, 1970). According to Spence (1973) the credibility of signaling motive is associated with its cost. And a mandatory condition for the credibility of signaling is that, the cost of fake signalling should be more enough for those banks who expect that their performance in the future might not be satisfactory. The banks with low earnings are considered as poorly performing banks, so if they increase their loan loss provisions than still they report low current earnings. Therefore, the possibility of audited by bank regulatory agencies will increases. Collins et al. (1995) in another related study document that their negotiations with the bank management indicates that the banks who have high earnings suffers low pressure against regulatory agencies as compared to banks with low earnings. Furthermore, the banks with high earnings bear less expense to approach capital markets as compared to the banks who obtain low earnings. As the incentive compensation of bank managers is based on the earnings, then the increase in loan loss provision will decrease the earnings and as a result of that the incentive compensation of banks also reduces. Liu et al. (1997) document that the proxies used by them involved compensation plans of bank managers, which are based on the earnings after loan loss provisions. The increase in the possibility of regulatory inspection and as well as the possible decrease in the compensation of bank managers which might arise from false signalling by increasing loan loss provisions. It proposes that the management of deprived banks may experience strong disincentives to become involved in that false signalling and thus, thus the possibility is less for doing that. One more disincentive for the deprived banks for a fake signalling by rising loan loss provision is the reputation cost.

Some previous studies found that share prices of banks respond positively to increased loan loss provision. For instance, Beaver et al. (1989) document a positive association among share prices of banks and unexpected loan loss provisions. Some more studies provide evidence that the capital market shows positive response towards the banks, who increase their loan loss provisions in reaction for the debt payment suspensions of less developed countries (Grammatikos and Saunders, 1990; Musumeci and Sinkey, 1990; Elliot et al. 1991;

Griffin and Wallach, 1991). In the same vein, Wahlen (1994) exhibit that managers of banks increase discretionary loan loss provisions at that time when the possibility for their future cash flows increases, as well as the share prices of the bank have a positive relationship with discretionary loan loss provisions. In addition, the study conducted by Beaver and Engel (1996) supports the findings of Wahlen (1994) and concluded that there is positive relation among bank loan loss provision and market value.

Previous researches investigate about the managerial use of loan loss provisions for signalling the financial information regarding the future earnings. In the view point of Beaver et al. (1989) shareholders explicate an incline in loan loss provisions as sign of strength. Similarly, Wahlen (1994), in a related study, observed a positive relation among loan loss provisions, expected future earnings and existing stock returns. Wahlen (1994) assumes that when loan loss provision increases unexpectedly then managers signal it as good news. That unexpected ratio of loan loss provision has a positive relation with the future changes in discretionary earnings. The study of Wahlen (1994) mainly focus on the signalling theory that whether the un expected loan loss provisions are consistent with the signalling effect and portrays information regarding future cash flows and earnings.

In another study, Kanagaretnam et al. (2004) use discretionary loan loss provisions to examine signalling and income smoothing by banks. According to them, the bank whose equity is comparatively underestimated have more incentives for signalling the future cash flows as compared to the fairly valued and under estimated banks. They argued that such banks raise their discretionary loan loss provisions to make amendments in the market expectations regarding future prospects. They predict a positive association among discretionary loan loss provision of current period and future earnings before taxes and provisions comparatively for the under estimated banks. They use earnings before taxes and provisions as a proxy variable to make adjustment in future prospects.

The results of these studies propose that stock markets consider an increase in the loan loss provisions as good news for signalling the earnings and future cash flow prospects in the future period. But on the other hand, that rise in the loan loss provisions may possibly interpret as bad news when the possibilities for loan default

will not be in its favour. As after that loan loss provisions will be act as the main source of financial information in case of loan default.

The earlier discussion recommends that bank management may convey some confidential information regarding the favorable future possibilities through the increase in loan loss provisions. Since mangers of underrated banks have massive inducements to involve in that intercourse.

2.2.2.2 Income Smoothing Theory

Even though there is a large accounting literature that investigates income smoothing but its theoretical bases are not completely comprehended. One justification on this matter is provided in the study conducted by Beaver et al. (1970), that bank managers try to lower the earnings variability to decrease the perceived risk as earnings variability is an important indicator of a risk.

In the same vein, the related study of Gebhardt et al. (2001) document that equity risk premium is continuously high for conventional banks and the inconsistency of the earnings is the main component for describing cross-sectional differences in the equity risk premium. According to them, equity risk premium is stated by subtracting risk-free rate from the overall expected return on stocks. They argue that the inconsistency of earnings is likely to portray the basic cash flow risk. Likewise, Barth et al. (1995) demonstrate that stockholders of bank desire a higher risk premium deduce from more inconsistent earnings stream.

In previous study Greenawalt and Sinkey (1988) deduced that bank managers used loan loss provision as long-term device for smoothing of earnings and used it as a dependent variable. They concentrate on the response of loan loss provision, when it is used as a function of banks' earnings and other measures of general business conditions which might have an impact on the quality of loan portfolios.

The findings of Wall and Koch (2000) report that the differences in the results of the studies are due to the selection of different sample and different time periods which has been examined. They deduced that the existing evidence distinctly recommends that bank management holds some incentives to exercise loan loss provisions to manipulate reported earnings.

Previous studies investigated the signalling of private information regarding expected changes in earnings of a bank through loan loss provision. Investors explicate a rise in loan loss provisions just as a signal for strength. Depending on the signalling effect Wahlen (1994) finds an association among unexpected loan loss provisions and expected changes in bank's earning along with contemporaneous stock returns.

The results concluded by Ahmed et al. (1999) further weaken the basics of the signalling theory and demonstrate that loan loss provisions are negatively associated with expected earnings and expected stock returns. Kanagaretnam et al. (2004) state that tendency of bank managers to signal information via discretionary loan loss provision is greater when their banks are undervalued. Furthermore, the other study of Kanagaretnam et al. (2005) report that, that tendency depends on the level of informational asymmetry among bank managers and equity investors, because it is negatively associated with bank size and has a positive relationship with earnings variability, future investment, and degree of income smoothing. Nevertheless, one more study of Kanagaretnam et al. (2009) state that the banks which are audited by leading audit firms, have a higher value relevance for loan loss provision, as auditing of the financial report mitigates the level of information asymmetry.

Many previous researches of Greenawalt and Sinkey (1988), Collins et al. (1995) and Beatty et al. (1995) predicted a positive relationship among loan loss provisions and earnings before loan loss provisions and it deduces that bank managers have incentives for income smoothing so, when future earnings are predicted to be low than loan loss provisions devalue intentionally, so that the adverse impact of other factors on earnings of bank may reduce.

The findings of Kanagaretnam et al. (1999) document that the tendency of income smoothing is high for the good and bad performing banks as compared to the banks with moderate performance. In the view point of Beatty et al. (1995), if bank managers reduce their cost of capital than income smoothing incentives for a bank may occur for the disclosure of private information to investors.

Market microstructure theory provides another clarification regarding smoothing of incentives. Such literature upholds that higher inconsistent earnings have a tendency to worsen the asymmetric information among the bank managers or outside investor as well as among privately-informed investors and market makers. So, to

recompense such informational disadvantage, the rise in the bid-ask spread by market makers might be more noticeable for banks with low expected earnings (Affleck et al. 2002). The consequential rise in the adverse selection constituent of the bid-ask spread may negatively affect the bank's cost of capital. If the banks managers with high variable earnings may minimize the adverse selection constituent of the bid-ask spread which shows the magnitude of the asymmetric information risk identified by the broker and at that time the trading cost of the bank will decrease and the market securities become more liquid. So, because of that, the securities of bank will become more valuable (Challahan et al. 2002).

The findings of previous research give mixed evidence about the usage of discretionary loan loss provisions for income smoothing. The findings of the related study conducted by Wahlen (1994) and Collins et al. (1995) between others, demonstrate that banks exercise discretionary loan loss provision for manage income while Moyer (1990), Ahmed et al. (1999) and Beatty et al. (1995) do not provide any evidence in support of the income smoothing.

2.2.2.3 Earnings Management Theory

Banks do earnings management to attain target earnings. For instance, Burgstahler and Dichev (1997) found that bank management manipulate earnings when the hidden earnings of bank are lower than thresholds. Some previous valuable researches used loan loss provision for earning management. In a related study, Beatty et al. (1995) and Collins et al. (1995) investigate such type of earnings management which only used loan loss provisions and examined that either banks used other items of financial reports along with loan loss provisions or not. However, some prior studies have concluded that banks do not make use of loan loss provisions as a tool for the purpose of earnings management (Ahmed et al. 1999 and Beatty et al. 1995). Despite of that former valuable studies concluded that managers used loan loss provisions for earnings management as their motive is to do income smoothing (Collins et al. 1995; Greenawalt and Sinkey, 1988).

Some studies investigated that banks use loan loss provision as tool for earnings management to attain their compensation contracts and to check the behaviour of share prices. For instance, in a study, Greenwalt and Sinky (1988) investigated the impact of banks' reported earnings upon the loan loss provision and deduce that banks do smoothing of their earnings through loan loss provisions. In a related study, the findings of Bhat

(1996) report that banks smooth their net income at the time when they face lower growth. Another study of Collins et al. (1995) regarding earning management reports that the relationship among loan loss provision and earnings is insignificant when non-discretionary loan loss provisions has been used.

In the same vein, the earlier study of Moyer (1990), Kim and Kross (1998), and Kiridaran et al. (2003) examined that banks employ loan write-offs and loan loss provisions to manipulate capital requirements whereas on contrary to this, the findings of Beatty et al. (1995) show that banks used loan loss provisions and loan write-offs for earnings management and capital reserve ratio.

The reimbursement of banks' managers might be tied to the net income so they lessen the estimated amount of the loan loss provisions for reporting higher net income than the actual one and thus their bonus increases. Healy (1985) document that there is an association among bonuses bank management and earnings management of the reported income.

Bank managers assumes that earnings have an impact on share prices so they might use loan loss provisions to lessen and increase earnings. The review literature of last three decades report that earnings have an influence on share prices so that's why managers may underestimate loan loss provisions when earnings are low and overestimate them when earnings are high. Thus, managers have an ability to shift earnings between periods to smooth income overtime.

2.2.2.4 Capital Management Theory

Regulators examine banks through accounting based capital measures so the incentives for the capital management rises. The findings of Moyer (1990) show a negative association among loan loss provision and capital adequacy ratio which infer that bank management regulate loan loss provisions to minimize regulatory costs. On contrary to this, Collins et al. (1995) in a related study find a positive relation among capital adequacy ratio and loan loss provisions. Since they assume that bank managers might increase equity, net income and the loan loss allowance to respond towards increased demand for regulatory capital. According to Collins et al. (1995) bank management try to reduce discretionary loan loss provisions rather to increase them, as they have low regulatory capital. They do that, as it is predicted by the spontaneous relations among the loan loss provisions, allowance for loan losses and capital ratio.

In many previous studies, the researchers like Beatty et al. (1995), Collins et al. (1995), Moyer (1990) and Scholes et al. (1990) found that banks exercise loan loss provisions to manage the capital adequacy ratios. In another related study, Anandarajan et al. (2003) stated that incentives for manipulation of capital adequacy ratio emerges, as the contravention of this ratio will suffer regulatory costs but the results of this study are not decisive. The findings of Scholes et al. (1990) and Beatty et al. (1995) in a study, document a negative relationship among loan loss provision and capital ratios and it confirms about the existence of capital management behaviour but on contrary to this, Collins et al. (1995) did not found any evidence regarding capital management behaviour.

Empirical work of Kim and Kross (1998) and Ahmed et al. (1999) in a study, report that loan loss provisions are used for capital management after execution of the Basel I accord and they found evidences regarding it. Afterwards, Wall and Koch (2000) also supported the results of study conducted by Kim and Kross (1998) and Ahmed et al. (1999). Conversely, in a study, Anandarajan et al. (2003) stated that underlying motives for capital management of banks even now exist and may provide strong incentives for those banks who face higher costs for breeching capital requirements. So, for assessment of loan loss provisions banks usually rely on accounting regulations and supervisory guidelines.

The basis on which accounting information acts as an essential component for the prudential regulation of banks, which is consistent with the Basel II Capital Accord. That premise postulates a fundamental role for transparency of accounting information to facilitate the market discipline. Whereas, Basel Pillar 3 imagines an extent of disclosures which might be or might not be an element of the financial accounting rules. Because financial accounting systems develop the basis for disclosure of information to the people outside the banks. In a same vein, the findings of Hovakimian and Kane (2000), Kane (2004) and Flannery and Thakor (2006) in a related study, report that it is possible that the quality of bank's financial accounting information may be associated with the quality of bank disclosures, which is beyond their regulations of financial accounting.

2.3 Summary

The review of related literature indicates that a clear majority of research on the value relevance, bank valuation and discretion of loan loss provisions in the banking sector has been conducted. Substantially it is inferred that numerous studies regarding signalling and earnings management by manipulating loan loss provisions have contradictory opinions and results. The evidence regarding the usage of loan loss provision as a tool for earnings management is also available but it also appears that to date though no study has attempted to address the conflicts in the both Islamic and conventional banks of Pakistan. The above issues were the primary motivation for the present research.

In a related study, the findings of Lobo and Yang (2001) conclude that bank managers use loan loss provisions for signalling of financial information to the stake holders of financial reports as well as for smoothing of earnings and for manipulation of regulatory reserve requirements. In another study Kanagaretnam et al. (2004) found that some factors like external financing plays significant role in explicating the smoothing of earnings by banks. According to them income smoothing minimizes the perceived risk of a financial institution, therefore cost of borrowing will be decreased. So, previous studies concluded that bank exercise loan loss provisions to manage earnings and capital.

It is found in many previous studies, that numerous factors clearly explain the determinants of loan loss provision for any bank in a detail, like net charge-offs, bank size, non-performing loans (NPL), past and present earnings and allowance for loan losses.

Except the findings of Ahmed et al. (1999) other previous literature provides evidence consistent with increase in the loan loss provisions by banks for signalling the future cash flows prospects. Whalen (1994) relates the increase in discretionary loan loss provisions to the expected future cash flows prospects as well as to stock returns of the banks. While on contrary to this, the findings from the study of Beaver et al. (1989) and Beaver and Engel (1996) showed that the latitude of share prices of a bank is associated with the lagged excess loan allowance. In another related study, the findings of Liu et al. (1997) observed a positive relationship among excess loan loss provisions and share prices which is context-specific and banks determined it with low regulatory capital in the fourth quarter of a year. On the contrary, the findings of Ahmed et al. (1999) in a

related study, provide evidence to corroborate the signalling theory, but only for the period which is examined by Wahlen (1994). And one of the significant research design proposed by Ahmed et al. (1999) in their study, is their control on the other well-known determinants of the discretionary loan loss provisions. Specifically, the previous researches did not control discretionary loan loss provisions while using it for signalling, smoothing of earnings and for manipulation of regulatory capital.

2.4 Hypotheses Development

The purpose behind the use of loan loss provision is to make adjustment in loan reserves to show future losses in their portfolios. The Ohlson (1995) model contributes in financial accounting as a landmark as it presents a consistent structure for the valuation of accounting figures. Since the valuation can be computed for the years by using book value of equity and net earnings. As the reported loan loss provisions are value-relevant for the investors, so our first hypothesis is formulated for that purpose.

Our first hypothesis is to examine the association among loan loss provision and bank value among Islamic and conventional banks of Pakistan. Our first hypothesis is about the value relevance of loan loss provision for both types of banks, so, we use Ohlson (1995) valuation model to examine this hypothesis. In a related study, Chong and Liu (2009) and Baele et al. (2012) stated that Islamic banks raise the sale of debt-based contracts, so, the loan loss provisions show a linchpin accrual for the bank managers. Empirical literature of different previous studies e.g., Wahlen (1994), Liu et al. (1997), Beaver et al. (1989) and Elliot et al. (1991) document that rise in the loan loss provision is considers as good signal for the bank value, as it can solve any debt issue which is safeguards from any default risk. In the same vein, another study of Grammatikos and Saunders (1990) projected a positive relationship among loan loss provision and expected future cash flows as soon as banks control their net charge-offs and non-performing loans. Similarly, Griffin and Wallach (1991) in a related study, stated that stock market shows a positive response towards those banks whose loan loss provisions portrays a growing figure. While Liu and Ryan (1995) show that such positive response is particularly for the larger banks.

If any information regarding loan loss provision is revealed while examining the value relevance of loan loss provisions, then it is positively priced by the stock market. Such information is about the loan default which

must be controlled by banks like net charge-offs, total outstanding loans and non-performing loans. If bank managers control, the loan default information then there is positive relationship among loan loss provision and bank value (Wahlen, 1994 and Liu et al. 1997). So, our first hypothesis is formulated in the following way:

H_1: There is an association between loan loss provision and bank value in case of Islamic and conventional banks.

Our second and third hypothesis are about the differential valuations of loan loss provision components in the two banking sectors of Pakistan. Second hypothesis of our study focuses on the relation among discretionary component of loan loss provision and bank value for the both types of banks. Empirical literature of some other previous studies [Moyer, 1990; Zoubi and Al-Khazali, 2007; Lobo and Yang, 2001; Ahmed et al. 1999; Beatty et al. 1995 and Collins et al. 1995) shows that bank managers employ loan loss provisions for manipulation and some discretionary motives (e.g. income smoothing, stock pricing, bonuses of bank management, compliance with legal requirements for capital adequacy and signalling of future losses and earnings) rather than to provide accurate valuation of outstanding loans. According to Beaver and Engle (1996), if bank managers control non-discretionary loan loss provision and default risk indicators, then investors projected a rise in discretionary loan loss provision as a sign of strength. Wahlen (1994) states that discretionary loan loss provision signals some confidential information of the favorable characteristics of banks, because they are observable actions. Stock market probably explicate such actions as improvement in the credit risk policy, loan pricing policy and restructuring and such future expectations are consistent with the discretionary motives discussed above and in finding out the manipulative use of loan loss provision. Prohibition of speculation, hedging and the use of derivatives in Islamic banks effect the discernment ability of investors regarding discretionary loan loss provision in Islamic banks. Olson and Zoubi (2008) and Hasan and Dridi (2010) mentioned in their study that supremacy of high liquidity and withdrawal risks give strong incentives to stockholders to raise scrutiny regarding loan provisioning decisions of Islamic banks. Due to the Shariah governance layer, different product structure and religious orientation of Islamic banks, the lower valuation of discretionary loan loss provision is expected by investors of Islamic banks. So, our hypothesis is formed in the following way:

H_2: The association between DLLP and bank value is lower for Islamic and conventional banks.

Our third hypothesis is about the association between non-discretionary loan loss provision and bank value for Islamic and conventional banks. In a related study, El-Gamal (2006) states that there is a positive affiliation among DLLP and bank value for Islamic banks, so it means that the investors of Islamic banks might be influenced by the discretionary motives. Empirical work of Beaver and Engle (1996) shows that investors might be unsuccessful in doing the pricing of discretionary loan loss provision in both banking sectors, if they scrutinize an insignificant coefficient for discretionary loan loss provision. Thus, market participants may perhaps be fooled. Investors consider non-discretionary loan loss provision as decline in enterprise value due to the poor loan portfolio management and increase in the default risk. Our third hypothesis is formulated in the following way:

H_3: There is an association between NLLP and bank value for Islamic and conventional banks.

Chapter 3

Data and Methodology

3.1 Introduction

This section presents the theoretical framework, econometric models and sample size of the study. The chapter presents the econometric models to examine the loan loss provisions for bank valuation in the two banking sectors of Pakistan. The estimation method which is implemented on the econometric is also described in this chapter.

3.2 Theoretical Framework

Many previous studies employed Ohlson (1995) model as a tool of analysis as it guides the researchers to recognize those tasks which are important for valuation and what value attributes to focus on.

Ohlson model framework has been adopted to explore relationships among the market value of equity and two main financial reporting variables namely the Book value of Equity and Net Income. Market value is related to book value and Earnings by using Ohlson model. Over all book value is value relevant to determine market value or prices.

Ohlson (1995) presented a valuation framework that relates bank value to earnings and book value, and both measures contribute in the bank valuation. Ohlson (1995) valuation model relies on two basic assumptions. The first non-controversial assumption postulates that the market value of a bank' equity is equal to the book value of equity plus earnings and contributed capital is considered as negative dividend. The second assumption proposes that the reported net income in the current period is equal to the change in book value of equity from period to period which is equal to earnings minus net dividends (dividends adjusted for capital contributions) as it requires changes in book value of equity over the time to follow clean surplus accounting.

According to the clean surplus relationship any changes to the book value of equity are the result of income generated and retained in the bank, i.e. $\Delta bvt_{it} = xt - dt$, where dt reflects all transactions directly with

3.3 Econometric Model

The value-relevance stream of this study is based on the premise that if financial information is beneficial for the users, then investors will change their behaviour and the market will react according to the changes in stock prices. Thus, if the fluctuations in the stock prices are related to the release of some information, then that information is value relevant.

The investigation for the affiliation between loan loss and bank value needs a valuation model that connects financial information to the market value and also to the Beaver and Engle (1996) two-stage analyses. In the beginning, we employ Ohlson (1995) valuation model, to examine the value relevance of the aggregate loan loss provisions in the both types of banks.

It is also utilized for examining the differential valuations of discretionary and non-discretionary loan loss provision but the model estimation is executed in Beaver and Engle (1996) two stage analyses. These two main approaches are determined to classify LLP into its components. We define loan loss provision on the basis of loan quality and size in the first approach, while in the second approach the incentives of bank managers for earnings management distinguished LLP.

The Ohlson model (1995) is expressed as ($MV_t = \alpha BVE_t + \beta E_t$) assuming the clean surplus accounting i.e., [$NI_{it} = BVE_{it} - BVE_{it-1} + d_t$]. To test the relationship among LLP and bank value we identify the value relevance model in Eq. (3.1) as follows:

$$\text{Book Value of Assets}_{it} = \alpha_0 + \alpha_1 BVE_{it} + \alpha_2 ENI_{it} + \alpha_3 TLLPs_{it} + \alpha_4 NPL_{it-1} + \alpha_5 \Delta LOAN_{it} + \varepsilon_{it} \qquad (3.1)$$

where

Book Value of Assets_{it}: is the natural log of assets for bank *i* at year t.

BVE_{it}: represents the book value of equity for bank *i* at year t.

ENI_{it}: is the net income of bank *i* at year t after excluding LLP.

T LLP_{it}: represents total (aggregate) reported loan loss provisions for bank *i* in year t.

NPL_{it-1}: represents the non-performing loans for bank *i* in time t − 1.

Δ $LOAN_{it}$: represents the change in outstanding loans for bank *i* in time t. It is estimated by taking the difference between the bank's total outstanding loans between year t and year t − 1.

Empirically, Ohlson model (1995) needs that the variable naming other information should be replaced with an intercept and an error term.

We separate out loan loss provision from net income (NI) consistent with the clean surplus accounting. Based on the empirical studies of Moyer, (1990), Beaver and Engle (1996) and Ahmed et al. (1999) we include the proxies for change in the default risk (Δ NPL_{it}) and the change in the lending volume ($\Delta LOAN_{it}$) to control the information regarding loan defaults as they leave a bad effect on the valuation of loan loss provisions. BVE_{it} and ENI_{it} both performed as the control variables for other information about financial statements, as both have the incremental explanatory power for share prices as well as for the bank size. To test the differential valuations for LLP components we follow the above identified value relevance model. Though the analyses are made on the basis of two-stage regressions whereas, we use alternative approaches to decompose the components of loan loss provisions which is mention below:

- **First Approach : Using Loans Quality and Size to Define LLP Components**

In this approach, we derive the components of loan loss provisions, which are identified via change in loan volume and quality.

$$TLLPs_{it} = NLLP_{it} + DLLP_{it} \qquad (3.2)$$

where

$DLLP_{it}$: is discretionary component of LLP for bank *i* at year t.

$NLLP_{it}$: is non-discretionary components of LLP for bank *i* in time t

Under the first stage regression T-LLP is classified as linear function of net charge-offs (Co_{it}), the change in total loans (Δ $LOAN_{it}$) and change in non-performing loans (ΔNPL_{it}), and they show the determinants of the unobservable NLLP. So, it brings out the regression model (3) which is as follows:

$$TLLPs_{it} = \alpha_0 + \alpha_1 Co_{it} + \alpha_2 NPL_{it-1} + \alpha_3 \Delta\ LOAN_{it} + Z_{it} \qquad (3.3)$$

where

Co_{it}: is net-charge offs for bank *i* in time t.

NPL_{it-1}: represents the non-performing loans for bank *i* in time t − 1.

$\Delta LOAN_{it}$: represents the change in outstanding loans for bank *i* in time t. It is estimated by taking the difference between the bank's total outstanding loans between year t and year t − 1.

Z_{it} (Composite error term) = $DLLP_{it} + \varepsilon_{it}$. Because ε_{it} is non-zero, so it shows that DLLP will be measure with some error term.

The second stage regression illustrates the value relevance analyses in which the fitted values from the estimates of first stage regression shows NLLP whereas the residuals of that model reflect the estimated values for DLLP. So, our value relevance model which is distinctly characterized and estimated for each sub sample is as follows;

$$Size_{it} = \alpha_0 + \alpha_1 BVE_{it} + \alpha_2 ENI_{it} + \alpha_3 DLLPs_{it} + \alpha_4 Co_{it} + \alpha_5 NPL_{it-1} + \varepsilon_{it} \quad (3.4)$$

The proxies like Co_{it}, ΔNPL_{it} and $\Delta LOAN_{it}$ used for the NLLP must be related with bank value which is consistent with the DLLP.

- **Second Approach: Using Earnings Management Proxies to Define LLP**

In the second approach, we classified loan loss provisions in terms of discretionary motives to use LLP for the earnings management perspectives. In the first stage, the determinants of DLLP are characterized by following the previous studies for the definition of the proxy variables used for this component. Like our estimation process in the first approach, our first-stage regression analyses in this approach shows that TLLP is regressed on the determinants of DLLP, so the model is:

$$TLLP_{it} = \beta_0 + \beta_1 \text{ Tier } 1_{it-1} + \beta_2 NI_{it} + \beta_3 NI_{it+1} + \beta_4 NI_{it+2} + \varepsilon_{it} \quad (3.5)$$

where

$\text{Tier } 1_{it-1}$: represents the ratio of Tier 1 capital to risk weighted assets for bank *i* at year t − 1. It is used to control the regulatory capital management motive.

NI_{it}: is the net income before LLP for banks *i* at year t. It is used to control the income smoothing incentive.

$NI_{it+1}$and NI_{it+2}: represents the one year ahead and two years ahead net income before LLP for bank *i* at year t + 1 and year t + 2. Both variables are used to control the signalling motive through LLP.

ε_{it} (Composite error term) = $NLLP_{it}$+ u_{it}. Given u_{it} is non-zero; it shows that NLLP is measured with some error.

In the second-stage analysis, the estimated residuals which comes from the first-stage analysis provide estimates for NLLP in the value relevance model which we identify as follows:

$$\text{Book Value of Assets}_{it} = \alpha_0+\alpha_1 BVE_{it}+\alpha_2 ENI_{it}+\alpha_3 NLLPs_{it}+\alpha_4 Co_{it}+\alpha_5 NPL_{it-1} + \varepsilon_{it} \quad (3.6)$$

The scale effects in the price level regressions are control by including one of the recommended approach presented by Barth and Kallapur (1996) i.e., the inclusion of a scale proxy like book value of equity as an independent variable.

3.4 Sample Size

Our empirical research is based on the data of Islamic banks as well their conventional banks of Pakistan. In this study, panel data is used for the investigation of loan loss provisions regarding the bank valuation in Pakistan. In analysis data will be obtained from the financial statements of the banks on annual basis. The data set span the 10-year period from 2006-2015. Throughout the process of sample selection, the study includes banks with assets, book values and other financial data sufficient for empirical analysis. Annually panel data is taken from the financial reports of five full-fledged Islamic and ten conventional banks that are working currently in Pakistan.

The list of Islamic banks is presented in the following table:

Table 3.1: List of Islamic Banks

No.	Islamic Banks
1	AL Barakah Bank
2	Burj Bank
3	Bank Islami
4	Dubai Islamic Bank
5	Meezan Bank

The list of conventional banks is presented in the following table:

Table 3.2: List of Conventional Banks

No.	Conventional Banks
1	Allied Bank
2	Askari Bank
3	Bank Alfalah
4	Bank Al-Habib
5	Bank of Khyber
6	Bank of Punjab
7	Habib Metropolitan Bank
8	Muslim Commercial Bank
9	NIB Bank
10	Soneri Bank

accounting so in that case loan loss provisions are recorded. Non-performing loans stem from those circumstances which are exogenous to decisions taken by management regarding financial reporting. Therefore, bank management has limited discretionary aptitude to make changes in non-performing loans.

3.5.7 Change in Outstanding Loans

Outstanding loans is that amount of debt and obligations which remains unpaid like short term liabilities, outstanding payables and accumulated interest. We take the change in loans as an independent variable. This variable is computed by deducting the previous year value of outstanding loans from the current year value. The change in outstanding is used as proxy variable for the non-discretionary loan loss provision.

3.5.8 Tier 1 Capital

From the regulator's perspective, it is the core measure for the financial strength of a bank. It comprises of core capital, which includes mainly of common stock and disclosed reserves and retained earnings. However, it might include non-redeemable and non-cumulative preferred stock.

It includes core capital which consists of the sum of book value of equity, non-cumulative perpetual preferred stock, minorities interests in equity accounts of subsidiaries less goodwill and other intangible assets. We use this variable as a proxy variable for the capital management hypothesis.

3.5.9 NLLP

Non-discretionary loan loss provision (NLLP) is accumulated from objective events associated with default risks, which lie beyond the management's control. We use the change in outstanding loans, change in non-performing loans and net-charge offs as proxy variables for the definition of non-discretionary loan loss provision.

3.5.10 DLLP

Discretionary loan loss provision (DLLP) is dependent on bank managers' manipulation and their discretionary motives for earning management (Beaver and Engle, 1996). It is accumulated from the residuals of the non- discretionary estimation. Basically, it is estimated value which we compute from the residuals of

the non-discretionary component for discretion. We use the proxy variables of non-discretionary loan loss provision to characterize it.

3.6 Estimation Method

We employ fixed effect model to estimate the econometric models in the panel data. Fixed effect model is used to analyse the effect of loan loss provisions on the bank valuation for the two banking sectors of Pakistan. It is used to estimate the coefficients of the regression model, so we use time independent effects for every individual observation which are probably correlated with the regressors. The study reflects that how the limited data, fixed effect and the exogenous repressors gave the estimators of the models and Stata is used for this purpose. Fixed effect model controls the effect of time invariant variables with time invariant effects and it doesn't matter whether the variable is explicitly measured or not.

Generally, fixed effect model is used to control omitted variables for panel data. It is exercised in the case, if omitted variables vary all over the countries, yet they do not change over the time. Fixed effect model is used when there are two or more time observations available for each entity.

The fixed effect model shows the observed quantities as explanatory variables which can be used in the case, if they are non-random. Fixed effect estimator is employed to relate it with the coefficients present in the regression model of panel data analysis. We inflict time independent effects for every single entity which may probably be related to the regressors.

Chapter 4

Empirical Results and Analysis

4.1 Introduction

The chapter presents the results for Islamic banks as well as for their competitive conventional banks by using the fixed effect estimation technique. The descriptive statistics for the both forms of banks and the interpretation of the results is also presented in this chapter. We differentiate Islamic and conventional banks by using the fixed effect estimation. We use Ohlson (1995) model to test value relevance of aggregate LLP and for the differential valuation of the components of loan loss provisions in the two sectors. We use this model along the Beaver and Engle (1996) two stage analyses. In the first stage, the determinants for the components of LLP are determined while in the second stage of analyses, the estimated residuals of the first stage are used as explanatory variables for the both components of loan loss provision. Though the analysis is based on two stage regressions, we use two approaches for the decomposition of loan loss provision. Under the first approach, we classify loan loss provision by using loans quality and size. Whereas, in the second approach, banks incentives for earnings management are used to characterized LLP.

4.2 Summary Statistics

The descriptive statistics presented in the Table 4.1, shows the summary for all the variables employed in this study. The statistics includes a 10 year summary of means, standard deviations, median, 25th percentile, 75th percentile, minimum and maximum for the sub sample of Islamic banks as well as for their competitive conventional banks of Pakistan for the data span of 2006-2015. Panel A provides distributional statistics for Islamic banks while Panel B presents the summary statistics for conventional banks of Pakistan.

Table 4.1: Descriptive Statistics for Islamic and Conventional Banks for 2006-2015:

Variables	Mean	Standard deviation	25th percentile	Median	75th percentile	Min	Max
Panel A: Summary Statistics for Islamic banks sub sample							
BVE_{it}	877216	8568027	595278	744780	821947	96438	2932417
ENI_{it}	3	26	2	3	5	0	5
CO_{it}	2793	66148	149	441	1805	29	12847
ΔNPL_{it}	79823	3760380	0	14109	75891	-173652	1626575
NPL_{it-1}	273566	3423795	99372	157501	465047	21942194	791795.9
$\Delta LOAN_{it}$	1014321	23423423	130677	571181	1219456	-4440843	5704467
$Tier1_{it}$	820635	7082618	612049	691064	744032	322795	2554410
NI_{it}	371168	6638881	89098	227692	392177	-162	2084765
NI_{it+1}	408499	6820492	130464	246301	445095	4598	2084765
NI_{it+2}	449704	7044227	138242	282516	467927	18022	2084765
Panel B: Summary Statistics for Conventional banks sub sample							
$Bank\ size_{it}$	8.35	0.40	8.19	8.4	8.62	6.64	9.01
$T\text{-}LLP_{it}$	6.53	77.18	3.42	6.49	9.40	0.15	11.99
BVE_{it}	2.63e+06	5.64e+07	1.02e+06	1.77e+06	3.00e+06	-1.06e+06	1.25e+07
ENI_{it}	19.51	77.58	16.61	19.46	22.04	16.57	23.97
CO_{it}	6.17	73.57	3.17	6.13	8.93	0.15	11.32
ΔNPL_{it}	228956	90502238	-21397	117377	290067	36746988	27302997
NPL_{it-1}	2.19e+06	7.91e+07	3.89e+05	1.25e+06	2.53e+06	1.34e+04	2.96e+07
$\Delta LOAN_{it}$	1.66e+06	1.10e+08	4.05e+05	1.24e+06	2.88e+06	2.97e+07	2.52e+07
$Tier1_{it}$	2.34e+06	4.87e+07	1.02e+06	1.58e+06	2.51e+06	1.03e+05	1.15e+07
NI_{it}	6.59	78.25	3.42	6.61	9.51	0.15	12.10
NI_{it+1}	1.35e+06	2.83e+07	4.17e+05	9.11e+05	1.69e+06	-5.09e+05	-5.09e+05
NI_{it+2}	1.46e+06	2.91e+07	4.55e+05	1.05e+06	1.96e+06	5.47e+06	5.47e+06

Note: Table 1 reports the summary of the all the variables included in the regression models from 2005-2015. The Panel A of table 4.1 shows the results for Islamic banks while Panel B shows the summary of statistics for conventional banks of Pakistan.

Panel A exhibits that the mean (median) of bank size is 7.63(7.67) with the standard deviation of 0.56, which is determined by taking the logarithm of total assets. The average value of loan loss provisions is 20813 and the mean value of net income after excluding loan loss provisions is 3 with the standard deviation of 24. The mean of book value of equity is 877216. The average value of net charge offs is 2793 with a standard deviation of 66148. The mean of change in non-performing loan is 228956 and that of change in outstanding loan is 1.66e+06. The average of tier 1 capital is 2.34e+06 and the average value of net income is 371168.

The Panel B of table 4.1 presents the mean, standard deviation and other statistics for the conventional banks of Pakistan. The Panel B reports that the mean of bank size is 8.35 with the median of 8.4. The mean (median) of loan loss provisions is 6.53 (6.49). The average of book value of equity is 2.63e+06 while the average of net income after loan loss provisions is 19.51. The mean (median) of net charge offs is 6.17(6.13) and the

Table 4.2: Value relevance analyses for the aggregate level of LLP for the period 2005-2015: Book Value of Assets$_{it}$ =α_0+α_1BVE$_{it}$+α_2ENI$_{it}$+α_3TLLPs$_{it}$+α_4NPL$_{it-1}$+$\alpha_5\Delta$LOAN$_{it}$+ε_{it}

Variables	Islamic Banks	Conventional Banks
BVE$_{it}$	0.0195(0.093) *	0.0093 (0.000) ***
ENI$_{it}$	0.0013(0.571)	- 0.0008 (0.255)
T-LLP$_{it}$	- 1.2800 (0.093) *	0.0020 (0.061) **
NPL$_{it-1}$	0.9520(0.001) **	0.0017 (0.045) **
ΔLOAN$_{it}$	0.0025(0.328)	- 0.0004 (0.368)
Year Fixed Effects	Yes	Yes
Bank-Year Observations	55	110
No of Banks	5	10

Note: The table shows the results for the fixed year effects estimation for testing H_1. The table shows the results for each sub-sample for the period of 2005-2011. The p-values are in the parentheses.

*** indicates significance at 1% level

** significance at 5 % level

* significance at 10 % level respectively

The results indicate statistically significant and positive relationship among book value of equity and bank size for the both forms of bank. Since regulatory agencies observed larger banks more carefully, so such banks have more strong connections with analysts and investors. Therefore, managers of large banks might not probably use signalling devices comprising of loan loss provisions for conveying their private information. There is a positive but insignificant relation between the net income and book value of assets for the Islamic banks whereas, the coefficient of net income for conventional banks is negative and insignificant. This is due to the inclusion of large as well as small banks in our sample of study.

For Islamic banks, the coefficient on total loan loss provision shows negative but significant relation with book value of assets while, the coefficient on total loan loss provisions for conventional banks shows significant and positive association with book value of assets. This means that the increase in loan loss provision for conventional banks is positively priced by the stock markets and investors which indicates that the earnings of banks also increases and the default risk management policy of the banks also become stronger. On the other hand, the negative sign on the coefficient of total loan loss provision reflects that stock market and investors do negative pricing of the increase in the total loan loss provisions. This means that the aggregate loan loss provisions show value relevant information in consolidated financial statements of both types of banks but it is more value relevant for conventional counterparts which increases their bank value.

The proxy variable i.e., NPL_{it-1} used for non-discretionary loan loss provision indicates a positive relationship with loan loss provision for Islamic banks as well as for their competitive conventional banks. The results demonstrate that both forms of banks have strong impairment decision policies so investors do positive pricing ofNPL_{it-1}. Our finding for non-performing loans is in line with the empirical work of Kanagaretnam et al., (2009), Collins et al., (1995), Ahmed et al., (1999), Wahlen (1994), Kanagaretnam et al., (2004), and Bushman and Williams (2012).

The coefficient of $\Delta LOAN_{it}$ is positive and insignificant for Islamic banks which suggest that Islamic banks do not price the change in lending volume or change in outstanding loans. The positive and insignificant results for $\Delta LOAN_{it}$ for Islamic banks are in line with the previous studies of Kanagaretnam et al., (2009), Beaver and Engle (1996) and Wahlen (1994) who found a positive sign for change in outstanding loans. However, the coefficient of $\Delta LOAN_{it}$ for conventional banks is negative and insignificant which implies that conventional banks do the pricing of change in lending volume and shows that the default risk management policies of Islamic banks are stronger than their competitive conventional banks. Because the negative coefficient of $\Delta LOAN_{it}$ reflects that investors do negative pricing of change in lending volume as it conveys the poor impairment decisions taken by the bank management.

Simultaneously, the findings are consistent with H_1 and the results indicate that the pricing of aggregate loan loss provisions in two different types of banking sector is not similar as both banks have different policies regarding lending volume.

4.3.2 Regression analyses under first approach-characterizing LLP components in terms of loans' size and quality

Table 4.3 provides the information regarding the pricing of discretionary loan loss provisions in Islamic as well as in their competitive conventional banks of Pakistan. The table presents the two stage value relevance analyses for the both forms of banks. The Panel A of the table 4.3 presents the first stage analyses in which we regress total loan loss provisions on the determinants of nondiscretionary loan loss provisions while, the second stage analyses for the discretionary loan loss provisions is reported in the Panel B.

Table 4.3: Regression analyses under first approach-characterizing LLP components in terms of loans' size and quality for the period 2005-2015.

Panel A: First-stage analyses: $TLLP_{it} = \alpha_0 + \alpha_1 CO_{it} + \alpha_2 NPL_{it-1} + {}_3\Delta LOAN_{it} + Z_{it}$

Variables	Islamic Banks	Conventional Banks
CO_{it}	25.8240(0.054) **	- 0.1507 (0.067) **
NPL_{it-1}	0.2028(0.070) **	-0.6110 (0.470)
$\Delta LOAN_{it}$	0.0544(0.009) ***	0.0077 (0.879)
Year Fixed Effects	Yes	Yes

Panel B: Second- stage (Value relevance analyses): Book Value of $Assets_{it} = \alpha_0 + \alpha_1 BVE_{it} + \alpha_2 ENI_{it} + \alpha_3 DLLP_{it} + \alpha_4 COit + \alpha_5 NPL_{it-1} + \varepsilon_{it}$

Variables	Islamic Banks	Conventional Banks
BVE_{it}	0.0372 (0.007) ***	0.0883 (0.001) ***
ENI_{it}	0.0008(0.009) ***	-0.0008 (0.481)
$DLLP_{it}$	0.2670(0.087) *	-0.0542 (0.463)
CO_{it}	7.0200(0.111)	-0.0080 (0.493)
NPL_{it-1}	0.1100 (0.004) ***	-0.0182 (0.659)
Year Fixed Effects	Yes	Yes
Bank-Year Observations	55	110
No of Banks	5	10

Note: The table presents the results for testing H_2 and H_3 under the first approach for defining the components of loan loss provisions. The table shows the results for each sub-sample for the period of 2005-2011. The Panel A shows the results for the first stage analyses by regressing loan loss provisions on the determinants of non-discretionary component of LLP, whereas, Panel B shows the second stage value relevance analyses for DLLP. The DLLP is acquired as the estimated value of the residuals, which we get from the first stage analyses. The p-values are in the parentheses.

*** indicates significance at 1% level

** significance at 5 % level

* significance at 10 % level respectively.

In Panel A, the coefficients of the net charge-offs and non-performing loans have predicted positive signs but on the other hand the coefficient on change in lending volume shows a significant but negative sign for the Islamic banks of Pakistan. So, it means that except $\Delta LOAN_{it}$, there is a positive relationship between the other two determinants of non-discretionary loan loss provision and total loan loss provisions. The positive coefficient of CO_{it} suggests that Islamic banks reflect information regarding future net charge offs and therefore, Islamic banks raise loan loss provisions for raising the flow of loan loss reserve. The estimated positive and significant coefficient of NPL_{it-1} implies that the Islamic banks raised the amount of loan loss provisions in those periods in which the default risk increases. The significant coefficient of $\Delta LOAN_{it}$ for Islamic banks shows that they increased their loan loss provisions at the time of credit growth. For

conventional banks net charge offs reflects a negative but significant association with total loan loss provisions which indicates that conventional banks did not reveal information about future charge offs, so that's why they did not make additions in loan loss provisions to increase the flow of loan loss allowances and reserves. The insignificant and negative coefficient of NPL_{it-1} for conventional counterparts indicates that they did not increase loan loss provisions when the default risk increases. The insignificant coefficient for change in lending volume ($\Delta LOAN_{it}$) suggests that conventional banks did not raise their loan loss provisions at the time of credit growth. So, the results imply that the purpose to report total loan loss provisions is to reflect the significant valuations for fluctuations in the quality and size of bank's loans.

The estimated coefficients for book value of equity (BVE_{it}) for both forms of banks are positive and highly significant which shows that they are positively associated with bank size in Panel B. The book value of equity and net income after provisions (ENI_{it}) are value relevant for Islamic banks as both are the key items of balance sheet and income statements and act as control for them. While the coefficient on ENI_{it} for conventional banks shows a negative sign as it is insignificant and is not value relevant for them. The discretionary loan loss provision ($DLLP_{it}$) coefficient for Islamic banks is positive and highly significant, on the other hand it is negative and insignificant for the conventional banks. Because for conventional banks, the residuals of DLLP, which we get from the first stage analyses are negatively associated with the loan loss provisions. The results exhibit that investors in Islamic banks considers a rise in loan loss provisions as a relevant information for the strong loan portfolio policies of a bank and for that reason they do the positive pricing of an opportunistic incline in loan loss provisions. But the positive signs for CO_{it} and NPL_{it-1} which are contrary to our predictions, implies that Islamic banks do not price net-charge offs (CO_{it}) and non-performing loans (NPL_{it-1}) and suggests that Islamic banks see different proxies used for non-discretionary loan loss provisions as irrelevant information. On the other hand, conventional banks do the pricing of net charge offs and default risk as, the coefficient for both variables show negative signs which are consistent with our predictions. Thus, it means that conventional banks see different proxies employ for non-discretionary loan loss provision as value relevant information.

The results determined from the first approach of the analyses are consistent with the previous studies of Beaver and Engle (1996) for Islamic banks and suggests that the shareholders and investors in Islamic banks

are not beginner and probably decompose loan loss provision into components so that they can easily acquire separate valuations. The findings imply that even though the Islamic principles prohibit manipulation as well as scrutiny exists for that purpose, the pricing of discretionary loan loss provisions is still done by market participants. But Islamic banks do lower pricing of discretionary loan loss provision as compared to the conventional counter parts.

4.3.3 Regression analyses under second approach-characterizing LLP components in terms of loans' size and quality for the period 2005-2015.

The results for the second approach under two stage value relevance analyses is presented in table 4.4. First stage value relevance analysis is reflected in the Panel A, which shows that total loan loss provision is regress on the proxies for discretionary loan loss provision. While Panel B shows the second stage value relevance analyses for non-discretionary loan loss provisions.

Table 4.4: Regression analyses under second approach -characterizing LLP components in terms of loans' size and quality for the period 2005-2015.

Panel A: First-stage analyses: $TLLP_{it} = \alpha_0 + \alpha_1 \text{Tier } 1_{it} + \alpha_2 NI_{it} + \alpha_3 NI_{it+1} + \alpha_3 NI_{it+2} + \varepsilon_{it}$

Variables	Islamic Banks	Conventional Banks
Tier 1 $Capital_{it-1}$	- 0.1420 (0.592)	0.0000 (0.554)
NI_{it}	- 0.0795 (0.748)	- 0.1028 (0.451)
NI_{it+1}	0.1778 (0.700)	0.0000 (0.056) **
NI_{it+2}	0.0279 (0.378)	- 0.0000 (0.087) *
Year Fixed Effects	Yes	Yes

Panel B: Second- stage (Value relevance analyses): Book Value of $Assets_{it} = \alpha_0 + \alpha_1 BVE_{it} + \alpha_2 ENI_{it} + \alpha_3 NLLP_{it} + \alpha_4 COit + \alpha_5 NPL_{it-1} + \varepsilon_{it}$

Variables	Islamic Banks	Conventional Banks
BVE_{it}	0.0017 (0.949)	0.0081 (0.002) ***
ENI_{it}	-0.0002 (0.947)	- 0.0012 (0.108) *
$NLLP_{it}$	0.6470 (0.797)	0.0015 (0.778)
CO_{it}	1.0700 (0.002) ***	0.0072 (0.000) ***
NPL_{it-1}	0.0096 (0.206)	- 0.0039 (0.418)
Year Fixed Effects	Yes	Yes
Bank-Year Observations	55	110
No of Banks	5	10

Note: The table presents the results for testing H_2 and H_3 under the second approach for defining the components of loan loss provisions. The table shows the results for each sub-sample for the period of 2005-2011. The Panel A exhibits the results for the first stage analyses by regressing total loan loss provisions on the determinants of DLLP, whereas, Panel B reports the second stage (value relevance) analyses for non-discretionary loan loss provision. The NLLP is acquired as the estimated value of the residuals, which we get from the first stage analyses. The p-values are in the parentheses.

*** indicates significance at 1% level

** significance at 5 % level

* significance at 10 % level respectively.

Panel A shows the results for the level of aggregate loan loss provisions in Islamic and conventional banks for the capital management hypothesis. The coefficient of $Tier1Capital_{it-1}$ is insignificant which means that it has a negative relationship with the loan loss provisions, because Islamic banks do not exercise provisions to fulfil the capital regulatory requirements in accordance with the Basel II. So, it means that Islamic banks do not utilize loan loss provisions to do income smoothing. Nevertheless, we find no proof about the use of loan loss provisions by Islamic banks for signalling of future cash flows. As the coefficients on net income and its first and second lead are insignificant, the results shows that managers of Islamic banks do not exercise loan loss provisions for discretionary motives like for the purpose of income smoothing, for capital earning management and for signalling of future cash flow prospects. On the other hand, the positive coefficient on $Tier1Capital_{it-1}$ indicates that conventional banks marginally utilize loan loss provisions for signalling of future cash flow prospects, as they exercise loan loss provisions to fulfil the regulatory capital requirements under Basel II. The net income with first and second lead term have a positive relationship with the discretionary loan loss provisions as their coefficients are positive and significant. So, the results imply that the managers of conventional banks are involve in discretion and they use loan loss provisions for discretionary purpose i.e., signalling of the future cash flow prospects.

In Panel B, the coefficient on BVE_{it} for Islamic banks is positive but highly insignificant for Islamic banks where as it is highly significant for their competitive conventional banks. ENI_{it} is negatively related to loan loss provisions for both banks, on the other side, it is marginally significant for conventional counterparts. The negative net income of both forms of banks suggests that there are three reasons behind their lower coefficient of net income. Firstly, the earning stream of the banks' net income might be riskier, secondly, losses hold larger transitory component as compared to the positive net income. And the banks who have reported losses, bear higher value of the implied put option of common equity. The non-discretionary loan loss provision shows insignificant but have a positive association with the bank value for Islamic banks as well as for their competitive conventional banks. The net-charge offs show a positive and highly significant coefficient for both Islamic and conventional banks and it is contrary to our predicted sign. The results suggest that both

forms of banks do not price net charge-offs. The market participants see the proxy for the change in default risk as irrelevant information. The results are not consistent with our predictions but they are in line with the evidences presented in the first approach.

Therefore, the results imply that our findings show the differences in the valuation of the two components of the loan loss provisions. Since we use different underlying theories for the specification of the models for the both forms of banks.

influence of reported loan loss provision on the bank valuations of Islamic and conventional banks of Pakistan, so the study contributes in the existing literature regarding loan loss provisions. The study also investigates the differential valuation in price level for the components of loan loss provisions. Control variables like net income and book value of equity and proxy variables like net-charge offs, outstanding loans and non-performing loans are used for the non-discretionary loan loss provision.

5.2 Major Findings

This study provides many interesting results and evidences as the study report mixed results for the Islamic as well as conventional banks of Pakistan. The study employs fixed effect model for the valuation of loan loss provision in both banking sectors. The findings of the value relevance analysis show that both type of banks have different attitude regarding the pricing of loan loss provision due the difference of underlying policies. The results for the two approaches used for the valuation purpose documents different behaviour for Islamic and conventional banks. As they decompose loan loss provision to obtain separate valuations, the results show that both types of banks have different valuation procedures for the valuation of the two components of the loan loss provisions. Since we use different underlying theories for the specification of the models for the both forms of banks.

5.3 Policy Implications

This research is informative and significant for the investors, policy makers, regulators, bank managers, accounting standard setters. This study is useful for policymakers and regulators to make governance mechanism from the investors' perspective. It is important for regulators to make the rules regarding the assessment procedures for loan loss provision. Regulators and policy makers must pay attention to the relevance of discretionary part of loan loss provision in bank valuations.

Authorities should pay attention to the regulation and monitoring of loan loss provision in Islamic as well as conventional banks, as it might contribute to the bank failure. The findings of the study are instrumental for the banking regulators, policy makers and bank managers as they might use them for the stability of the banking sector. Islamic banks must be firmer'' in their strong religious, social and ethical codes as Islamic banks are important for the progress and growth of economy and financial stability.

5.4 Limitations of the Study

The limitation of this research involves the available data set for the Islamic banks of Pakistan. As there are only five banks which are working in Pakistan. A lot of data for many variables was missing, like the data for net charge-offs per year is very limited for the data span of 2005-2015. And missing data could not be obtained other than the bank scope. This leads to larger number of observation for the conventional banks in contrast with the Islamic banks. So, the limited and insufficient data will influence the results.

5.5 Areas for Future Research

Further research can be done in signalling some financial information towards the market, but after adaptation of the new regulations in the expected loan loss model. This study could provide interesting subjects for the further studies. The future researches can expand the data set by including the Islamic financial institutions. This study focuses only on signalling effect and earnings management, so the future researches can expand the literature by focusing on the capital management.

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