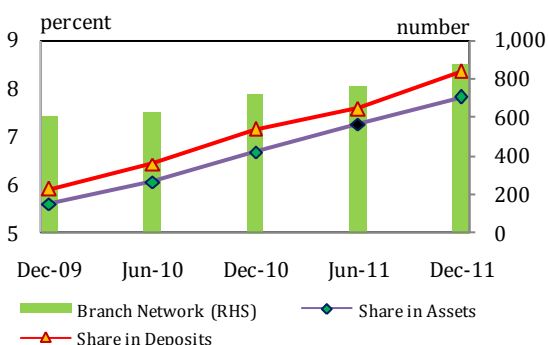


Islamic Banking is gaining systemic importance. As of 31-Dec-2011, total assets of Islamic banking institutions (IBIs) exceed those of 5th largest bank and are more than 4 times of the total assets DFIs. Similarly in terms of deposits, IBIs rank ahead of the 4th largest bank. Double digit growth rates persists, with substantial portion of the addition to assets channeled towards government securities, however, growth in financing remained subdued. On average, IBIs are more solvent and liquid though a little less profitable than rest of the banking sector. Asset quality marginally deteriorated during the period under review but still remains considerably better than that of conventional banks. Due to reliance on mark-up based, lease & mortgage type financing reputational risk remain high in IBIs that can pose significant challenge to the future growth prospects of the industry.

Boom continues despite diminishing base effect...

Figure 4.1

Share and Network of Islamic Banking

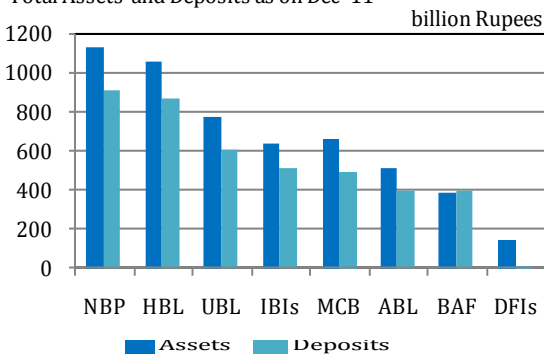


From modest beginnings in 2002, Islamic banking now accounts for 7.8 percent of the assets and 8.3 percent of the deposits of the banking sector (**Figure 4.1**). Despite diminishing base effect, the decade long strong growth of Islamic banking remained robust during the period under review as the assets and deposits of Islamic Banking Institutions (IBIs) surged by 14 and 15 percent respectively during H2-CY11 while registering year on year growth of 34 percent each. This compares well to the 10 percent growth in the global Islamic finance industry²⁸. With Rs641 billion of total assets and Rs521 billion in deposits, total assets of IBIs were approaching those of the fourth largest bank and deposits surpassed those of the fourth largest banks by the end of H2-CY11 (**Figure 4.2**).

...and so does the risk aversion

Figure 4.2

Total Assets and Deposits as on Dec-11



Due to the muted demand for bank credit from the private sector and banks' lowered risk appetite considering the opportunity to lend to the government at attractive rates, the trend of funneling new deposits to the safer havens of investment in sovereign securities continued during the period under review albeit to a lesser extent compared to the previous half year. New issuance of Government of Pakistan Ijara Sukuk in December 2011 enabled IBIs to channel another Rs30.7 billion or 38 percent of their incremental assets towards investment in government securities. On the other hand, growth in financing remained subdued with net financing increasing by a meager 6 percent (4.6 percent in H1-CY11) compared to 19 percent (46.6 percent during H1-CY11) growth in net investments during H2-CY11 (**Table 4.1**).

²⁸ Global Islamic Finance Report, 2011.

Table 4.1: Growth of Islamic Banking

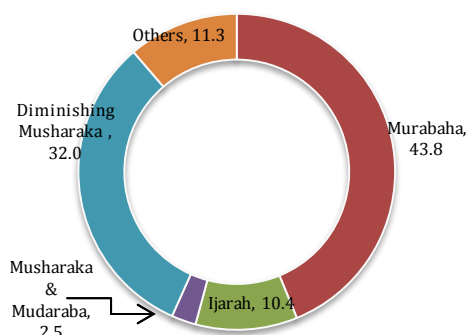
	billion Rupees					All Banks Dec-11
	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11	
Total Assets	366.3	411.1	477.0	560.5	641.0	8,170.8
Investments (net)	72.2	78.0	157.8	231.3	274.3	3,054.9
Financing (net)	153.5	157.5	180.4	188.6	200.2	3,349.2
Deposits	282.6	329.8	390.1	452.1	521.0	6,243.6
	percent change					
	Dec-09	Jun-10	Dec-10	Jun-11	Dec-11	
Total Assets	17.0	12.2	16.0	17.5	14.4	5.9
Investments (net)	34.9	8.0	102.3	46.6	18.6	16.6
Financing (net)	9.4	2.6	14.5	4.6	6.2	(1.0)
Deposits	18.7	16.7	18.3	15.9	15.2	4.7

The slow growth in financing portfolio is however understandable given the significantly lower demand from the private sector caused largely by the continued energy crisis, and uncertain business and economic conditions. As the issues like energy crisis are likely to take some time in their resolution, any major boost in demand for credit from private sector is unlikely in the near future. The government has plans to issue additional Ijarah sukuk of Rs75 billion in H1-2012²⁹ and thus IBIs would have adequate supply of additional government securities to invest in commercially attractive sovereign securities.

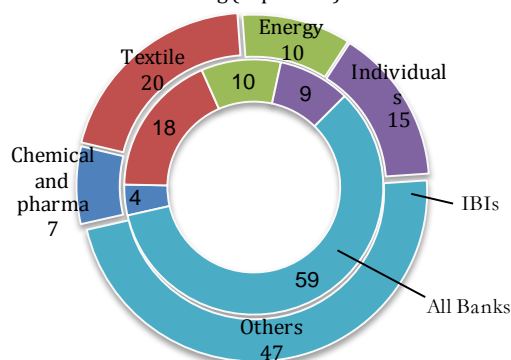
Trade based modes like Murabaha remain the dominant mode of financing...

Figure 4.3

Financing Mix (in percent)

**Figure 4.4**

Concentration of Financing (in percent)



As elsewhere³⁰, the trade based modes of financing have dominance in IBIs financing portfolio in Pakistan. This trend continues during the period under review with 89 percent of the financing under Murabaha, Diminishing Muharakah or Ijarah (**Figure 4.3**). Although, most of the Shariah advisors' reports have been emphasizing the need for Islamic Banks to switch to the profit and loss sharing (PLS) modes of financing, however, issues like moral hazard, weak contract enforcement mechanism and low demand of such products from reputed businesses and individuals will have to be addressed to see any significant improvement in such modes of financing. Encouragingly, Musharaka based transactions with reputed corporate clients having well established verifiable cash flows and good corporate governance practices and track record has started taking place, which may gradually improve the comfort level of bankers and business community in participatory modes of financing and thus may translate into gradual buildup and improvement of such financing in IBIs' financing portfolio over medium to long term.

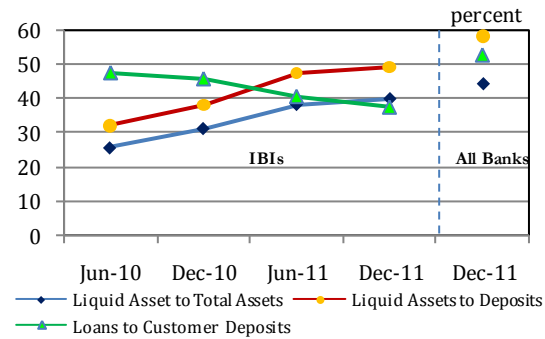
A major portion of IBIs financing representing 73 percent of the total financing portfolio goes to the corporate sector whereas SMEs share remains a meager 5 percent. Most of the corporate financing was extended to energy, electronics, Agribusiness, Textile, and chemicals sectors (**Figure 4.4**). Substantial portion of the finance representing 45 percent of the increase was extended to various sectors for meeting their working capital needs. Salam and Istisna saw a joint increase of 33% for meeting the trade finance related needs of textile, agribusiness and electronics sectors.

²⁹ Government exceeded this target and by the end of June 2012 issued about Rs116.5 billion of Ijarah Sukuk

³⁰ See for example, Chong, B. S. and M. Liu (2009) "Islamic banking: Interest-free or interest-based?", Pacific-Basin Finance Journal and F. Khan (2010) "How Islamic' is Islamic Banking?", Journal of Economic Behavior and Organization

Figure 4.5

Liquidity Ratios



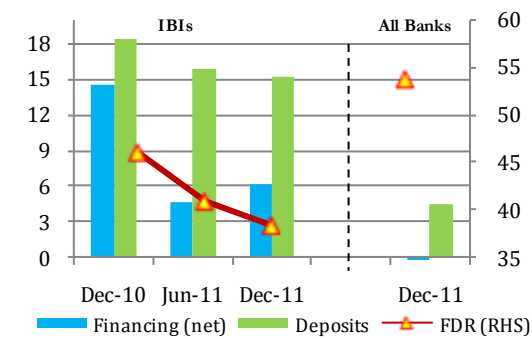
Segment analysis shows that Agriculture financing still remains the neglected area and represents only 0.1 percent share in overall financing. SBP cognizant of the need for enhancing Islamic mode based agri-finance is encouraging IBIs to increase their penetration in smaller towns and semi urban areas. Further, the recently issued standard Salam based product³¹ is also likely to facilitate IBIs in improving their agri-finance portfolio.

IBIs maintain comfortable level of liquidity as FDR further slides...

As a result of low credit demand from the private sector and continued borrowing by the government at attractive rates, IBI's incremental lending to the private sector remained muted, despite sufficient availability of funds. Consequently, liquidity ratios continued to improve during H2-CY11, with liquid asset to total assets and liquid assets to deposits ratios reaching 40 percent and 49.3 percent respectively at the end of H2-CY11, thereby approaching the liquidity indicators of the rest of the banking sector (**Figure 4.5**). During H2-CY11, Financing-to-Deposit ratio (FDR) of IBIs further plunged to 37.8 percent, compared to 52.7 percent for the entire banking sector (**Figure 4.6**).

Figure 4.6

Growth in Advances and Deposits (in percent)



On the liquidity front, last year and a half has seen relatively frequent issues of large sized shariah compliant low-risk Government of Pakistan Ijarah sukuks. However, limited liquidity management instruments, lack of a deep and liquid Islamic financial market and absence of lender of last resort facility for IBIs remain key issues that need to be addressed on priority basis. To this end SBP is working for development of a comprehensive liquidity management solution that might include i) development of Islamic interbank money market; ii) development of Islamic Interbank Offered Rate (IIBOR) for use as a benchmark for pricing of Islamic finance products; iii) transformation of a sizeable portion of conventional sovereign debt in the books of central bank into Shariah compliant debt, iv) allowing IBIs to place surplus liquidity with the central bank to be remunerated based on the central bank's earnings on Shariah complaint assets and investment portfolio, and v) lender of last resort facility for IBIs.

³¹ AC&MFD Circular No. 03 of 2011, Oct 18, 2011.

Table 4.2: Asset Quality

	In percent			
	IBIs		All Banks	
	Dec-10	Jun-11	Dec-11	Dec-11
NPF to Financing	7.3	7.5	7.6	15.7
Net NPF to Financing	3.2	3.2	2.9	5.4
Provisions to NPFs	58.6	60.0	63.0	69.3
Net NPFs to Total Capital	12.3	11.6	10.5	23.1

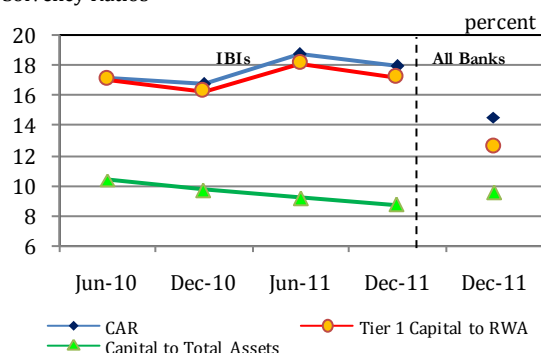
	IBIs		IBBs	
	Jun-11	Dec-11	Jun-11	Dec-11
NPF to Financing	9.6	9.0	4.1	4.9
Net NPF to Financing	3.7	3.0	2.2	2.9
Provisions to NPFs	63.4	68.9	46.7	42.6
Net NPFs to Total Capital	12.0	10.3	10.6	10.9

NPFs (billion Rs.)	11.7	11.8	2.1	3.0
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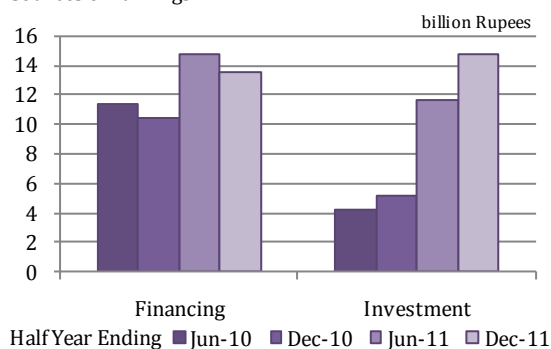
IBs=Islamic Banks, IBBs = Islamic Banking Branches, IBIs = IBs+IBBs

Figure 4.7

Solvency Ratios

**Figure 4.8**

Sources of Earnings



Asset quality marginally deteriorates...

The Non Performing Financing (NPFs) of IBIs continued to pile up and the infection ratios marginally deteriorated during the period under review (**Table 4.2**). During H2-CY11, IBIs accumulated another Rs1.1 billion in NPFs (Rs3 billion during H2-CY10), with most of the increase contributed by Islamic Banking Branches (IBBs). However, asset quality indicators remained relatively better than those of conventional banks reflecting their ability to better manage credit risk..

... but damage is contained and adequate cushion is available to absorb unanticipated losses

Almost 69 percent of the NPFs of IBIs are in the loss category and are therefore adequately provided for. The provisions coverage ratio further improved to 63 percent and capital at risk (Net NPFs to Total Capital) of IBIs dropped by 110 bps to 10.5 percent (Net NPLs to Total Capital of conventional banks is in the north of 20 percent) over the review period (**Table 4.2**). The solvency of the IBIs saw a decline with CAR declining by 78 bps to 17.95 percent as of H2-CY11, mainly due to increase in credit risk weighted assets (**Figure 4.7**). The CAR well above the benchmark rate suggests (a) relatively low leveraging of capital by IBIs, (b) significantly larger investment in low risk government securities and well rated corporates, and (c) availability of sufficient cushions with IBIs to absorb unanticipated losses.

The shift to investment in government securities pays off as profitability is maintained despite increase in NPLs...

IBIs witnessed healthy growth in earnings at the back of improved income from investments in high yielding sukuks, lower provisions against NPF and improved dividend income (**Figure 4.8**). As a result, profit before tax quadrupled over the year to Rs10.6 billion, which supported the ROA and ROE of the IBIs. The efficiency of IBIs' use of resources did not change much during the period under review as operating expenses to gross income ratio decreased marginally to 60.4 percent during H2-CY11 from 60.9 percent during H1-CY11 (**Table 4.3**).

Table 4.3: Earnings

	In percent			
	IBIs			All Banks
	Dec-10	Jun-11	Dec-11	Dec-11
Return on Assets	0.6	2.0	1.9	2.2
Return on Equity	5.9	20.7	20.8	23.4
Operating Expenses to Gross Income	72.6	60.9	60.4	62.3

Profit before tax is used in all calculations

Profit and Loss distribution mechanism still needs to be streamlined

IBIs are contractually obliged to share profits and losses with the PLS depositors. However, their profit and loss computation and distribution policies and practices lack standardization. Taking cognizance of this reputational risk, the SBP is in the process of developing a standardized framework in consultation with the industry which is likely to be introduced and enforced during H2-CY12. The standardized framework is expected to improve transparency in the profit computation and distribution policies and practices and thus would improve public confidence in Islamic banking generally and profit distribution mechanism particularly.

Box 4.1

Business Model, Stability, Asset Quality and Efficiency of Conventional and Islamic Banking Institutions in Pakistan³²

The proponents of Islamic finance argue that financial intermediation based on Islamic principles would bring in greater stability in domestic economy, financial markets and even in international economy. [Siddiqi (2006); Zaher and Hassan (2001); Nigel (1998); El-Gamal (2000)]. There is, however, a general lack of academic studies to empirically test this hypothesis. Employing z-scores to test the relative strength of banks in 18 countries from 1993-2004, Čihák and Hesse (2010) find that small Islamic banks are financially stronger than small and large commercial banks, whereas, large Islamic banks are weaker than large commercial banks. They attribute their findings to the issues of credit risk management, in large Islamic banks, related to financing based on Profit and Loss Sharing (PLS) arrangements. However, PLS based financing form a very small part of the overall credit portfolio of Islamic banks. In a broader study covering 141 countries over the period 1995-2007, Beck, Demirgüç-Kunt et al. (2010) compare the business model, efficiency, asset quality and stability of the Islamic banks and conventional banks employing a group of indicators from their balance sheets and income statements. They note that Islamic banks are better capitalized but they do not find significant differences between the business model, efficiency, asset quality or stability of Islamic and conventional banks. Using loan level data of Pakistan banking sector from 2006 to 2008, Baele, Farooq et al. (2010) find that as compared to conventional loans, on average Islamic loans are less likely to default. These papers suggest that the structure of banking sector and the size and organization of Islamic banks may influence the health of Islamic banks.

In this study we investigate how in Pakistan, Islamic banking in practice is different from conventional banking in terms of business orientation, efficiency, asset quality and stability where both types of banking systems coexist. Our findings suggest that there is a significant difference in business model of Islamic and conventional banking institutions, measured by non-deposit funding to total funding and gross loans to total assets ratios. In profitability (return on assets) and asset quality comparison, Islamic banking institutions (IBIs), comprising exclusive Islamic banks (IBs) and Islamic banking branches (IBBs) of dual banks, perform better than conventional banking institutions (CBIs) that include exclusive conventional banks (CBs) and conventional banking branches (CBBs) of dual banks.

Data and Methodology

For this study we use the quarterly data of individual banks which they submit to the SBP for regulatory purpose, therefore, it is more precise, and standardized and comprehensive than those used in other studies. The dataset contains detailed information on the balance sheet and income statement of the banks. It provides us enough information to construct the indicators of business model, efficiency, asset quality and stability for comparison of the Islamic banking and conventional banking.

In Pakistan conventional and Islamic banks coexist with some full-ledged Islamic banks, some full-fledged conventional banks and some bank that are engaged in both Islamic and conventional operations as the regulatory framework of the country has the provision for conventional banks to open standalone Islamic branches. Our dataset, therefore, allows us to decipher how Islamic and conventional operations within same bank differ in terms of their business model, efficiency, asset quality, profitability and stability. The dataset

Table 1: Descriptive Statistics: All Banks

	Obs	Mean	Std. Dev.	IBIs	Conv. banks
Non Interest Income to Total Income	1417	17.73	13.30	9.84	20.23***
Non-Deposit Funding to Total Funding	1423	22.46	24.87	16.03	24.51***
Gross Loans to Total Assets	1423	52.61	22.23	49.68	51.23
Z-SCORE	1423	15.55	18.94	19.56	14.16***
Return on Assets	1423	0.53	1.58	1.08	0.32***
Capital-Asset Ratio	1423	9.88	45.47	19.47	5.85***
NPLs to total Loans	1367	13.89	22.24	1.61	23.52***
Provisioning to gross Loans	1369	9.92	18.34	0.78	8.04***
Cost Income Ratio	1417	87.73	52.92	90.67	85.38
Operating Cost to Total Cost	1389	47.14	20.08	42.91	46.55***
Bank Level Controls					
Size	1423	10.00	1.91	7.99	10.61***
Non-Loan Earning Assets to Total Assets	1423	52.19	18.99	44.16	54.42***
Fixed Assets to Total Assets	1423	2.98	3.93	3.43	2.75***

***, **, * significant at 1%, 5% and 10% respectively

³² This section is based on Farooq, Moazzam and Sajjad Zaheer (2012), "Business Model, Stability, Asset Quality and Efficiency of Conventional and Islamic Banking Institutions: Evidence from an Emerging Economy", Working Paper.

covers accounts of 23 conventional banks (CBs), 5 exclusive Islamic banks (IBs) and 12 dual banks with both Islamic as well as conventional operations for 32 quarters starting from June 2002 to March 2010. Following the convention in Pakistan, we name the Islamic branches of dual banks as Islamic banking branches (IBBs) and there conventional branches as conventional banking branches (CBBs). Both IBBs and exclusive Islamic banks (IBs) form the Islamic banking institutions (IBIs). **Table 1** shows descriptive statistics of the main variables for IBIs and conventional banks.

For business model we compare asset portfolio of Islamic and conventional banks using loan³³ to total assets ratio. In our sample, gross loans to assets ratio is on average 53 percent with standard deviation of 22 percent. This ratio for IBIs is lower than that for conventional banks; however, the difference between the two is not significant.

As expected, IBIs rely less on non-deposit funding due to limited market based funding options, which is evident from their lower non-deposit funding to total funding ratio as compared to that of conventional banks. Moreover, average of non-interest/markup income to total income for IBIs is 9.84 percent against industry's figure of 17.73 owing to their relatively new presence and smaller size and network on average. We use Z-scores to compare the stability of the Islamic banks and conventional banks. Z-score is an increasingly used measure of bank soundness. Bank insolvency is defined as a state where $(CAR + ROA) \leq 0$, with CAR being the bank's capital-asset ratio and ROA its return on assets, or equally when losses exceed equity (Roy, 1952; Hannan and Henwick, 1988; Boyd, Graham and Hewitt, 1993; and De Nicolo, 2000). Z-score is constructed as the sum of the mean rate of return on assets (μ) and the mean equity-to-assets ratio (k) divided by the standard deviation of the return on assets (σ) i.e. $z\text{-score} = \frac{\mu + k}{\sigma}$. It measures the risk of insolvency or distance to default.

The sample data shows that Z-score of Islamic banks is on average higher than that of conventional banks, meaning that IBIs are on average more stable than their conventional counterparts. Both better capitalization³⁴ and higher returns on assets (ROA) contribute to the stability of the IBIs over conventional banks. We use non-performing loans (NPLs) to gross loans and provisioning to gross loans to compare the asset qualities of both the banking systems. NPLs and provisioning of IBIs are lower than those of conventional banking institutions, indicating a better asset quality. The indicators of efficiency show that on average cost-income ratio of IBIs is higher than that of the conventional banks, although their overheads, as measured by operating cost to total cost, are lower. The correlation between variables did not pose any estimation challenge and the correlation matrix is not reported here.

Econometric Specification

To evaluate difference in various banking indicators of business model, efficiency, asset quality, and stability across both bank types in our data, we estimate the following regressions:

$$M_{it} = \alpha + \beta I_i + \gamma_1 B_{it} + \gamma_2 T_t + \varepsilon_{i,t} \quad (1)$$

Where M is one of the measures corresponding to business model, asset quality, stability and efficiency of bank in quarter t. I is the dummy for Islamic banking institutions, which includes both IBBs and IBs. B is time changing bank characteristics and T represents time fixed effects. To compare Islamic banking operations with conventional banking operations within same bank we use bank fixed effects.

We first estimate the equation (1) with an intercept and dummy for IBIs without any covariates, for the whole sample. We then progressively control the results for an array of bank-level time variant features which might affect the differences across bank due to bank type. Our control variables include bank's size, proxied by log of assets, as larger banks may be more efficient due to economies of scale, could have more access to wholesale funding and might generate more fee based income. There is however no definite relationship between bank size and stability (Beck, Demirgüç-Kunt et al. (2010). Most of the Islamic banks in Pakistan are in small to medium size bank categories, whereas to tap the market few big conventional banks also introduced Islamic banking

³³ For IBIs the term 'loan' refers to any type of financing provided using Islamic modes of financing and markup refers to the profit earned on the sale of or leasing out an asset.

³⁴ IBIs are relatively younger than conventional banks, therefore, overall leveraging of their capital is lower than that of conventional banks.

operations through IBBs. We also include fixed assets to total assets ratio and non-loan earning assets to total assets ratio to control for the opportunity cost of having unproductive assets and non-lending business respectively. Moreover, we also split the dummy for IBIs into dummy for Islamic banks (IBs) and Islamic banking branches (IBBs), to see the corresponding difference from CBIs. To remove the outliers data is winsorized for all variables at the 1st and 99th percentiles. For robustness all specifications are also estimated with original data without winsorizing it, the results remain robust to this alternative treatment and are not reported here.

Results:

Table 2, shows results of specification (1) for various indicators of stability and asset quality of Islamic and conventional banking operations. According to the results, there is a significant difference between stability and asset quality of the IBIs and CBIs. IBIs fare better than CBIs in non-performing loans and provisioning to gross loans. Findings about asset quality of the banks are also endorsed by the study of Baele, Farooq et al. (2010) that employs loan level data from Pakistan from 2006 to 2008. Provisioning to gross loans ratio is significantly lower for IBIs owing to the lower level of non-performing loans. Return on assets of IBIs is also statistically and economically higher than that of CBIs. Similarly, asset quality indicators of IBIs depict better position than that of CBIs. Differences in both of these indicators across IBIs and conventional banks are economically relevant as well.

Table 2 Results of Specification (1) for Stability and Asset Quality

	Stability			Asset Quality	
	Z-Score	ROA	CAR	Provisions to Gross Loans	NPLs to Gross Loans
C	17.69	-2.65**	11.51	30.59**	48.61**
Islamic	2.06	7.12***	57.40	-37.72**	-56.68*
Size	-1.17	0.27***	-0.13	-3.07**	-4.24**
Fixed Assets to Total Asset	0.02	-0.06*	0.84	0.18	0.73**
Non-loan Earning Assets to Total Earning Assets	0.17	0.00	-0.11	0.26**	0.22*
Islamic * size	0.08	-0.67***	-5.49	2.64*	4.14**

***, **, * significant at 1%, 5% and 10% respectively

Results of specification (1) for various indicators of business model and efficiency are presented in **Table 3**. The results show significant differences between IBIs and CBIs on various measures of business model and efficiency. Non-interest/markup income of IBIs is significantly lower than those of conventional banks and, IBIs rely less on non-deposit sources for their funding needs than their conventional counterparts do, indicating differences in the business models of IBIs and CBIs. The proportion of financing in total assets of IBIs and CBIs also differ, however this difference is not statistically significant.

The IBIs however appear to be relatively less efficient as exhibited by their higher operating cost to total cost ratio that originates from redundancies in their contracts. Apriori this is an expected result due to the presence of relatively younger IBIs with higher establishment related costs in the initial years and a need to spend more to gain attraction and compete with the relatively mature conventional banks with established brands, clientele and systems. Another reason for this difference could be relative strength of conventional banks to harness efficiency from economies of scale and scope that might not be available to relatively younger Islamic banks³⁵.

The data also provide us the opportunity to use bank fixed effects, since we have some banks which are doing Islamic and conventional banking simultaneously. The unreported results show a significant difference between IBBs and CBBs in some indicators of stability, asset quality and efficiency but no difference between the business orientation of IBBs and CBBs.

³⁵ Farooq, M. (2011), "Literature Survey and Anatomy of Islamic Banking", Working Paper.

Conclusion:

In this section we investigate how Islamic banking institutions are different from conventional banking institutions in terms of business orientation, efficiency, asset quality and stability in Pakistan. The results suggest that, once we control for bank level characteristics, there is significant difference in business model of Islamic and conventional banks. Also, Islamic banking institutions (IBIs) performed better than conventional banking profitability and asset quality during the last decade. Specifically, non-performing loans and provisioning to gross loans ratios of IBIs are lower than the same indicators of conventional banks. Islamic bank also rely less on non-deposit funding suggesting that they

are more involve in core banking business. However, their asset portfolio shows that they have lower loans to total asset ratio than that of conventional banks. On the other hand, we do not find any significant difference in efficiency between Islamic and conventional banking in our main specification.

Table 3 Results of Specification (1) for Business Model and Efficiency

	Business Model			Efficiency	
	Non-interest Income to Total Income	Non Deposit Funding to Total Funding	Gross Loans to total assets	Cost to Income	Ops. Cost to Total Cost
C	13.70	128.82***	127.29***	150.48***	21.92
Islamic	-20.76*	-82.71***	-36.34	-35.86	43.53**
Size	0.22	-8.08***	-2.52	-8.92***	0.48
Fixed Assets to Total Asset	-0.10	0.22	-0.59	2.86***	1.45***
Non-loan Earning Assets to Total Earning Assets	0.07*	-0.35*	-0.85	0.42**	0.27***
Islamic*Size	1.68	6.38***	2.83	2.66	-4.23**

***, **, * significant at 1%, 5% and 10% respectively