THE IMPERFECT INFORMATION APPROACH TO THE STRUCTURE OF FINANCIAL SYSTEM IN PAKISTAN: AN ANALYSIS OF RESPONSE BY THE FINANCIAL INSTITUTIONS

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1. Abstract

Persistent economic revival and prudent policies of last two regimes have amplified the interest of common man in the mechanism and performance of Financial Institutions in Pakistan. The contemporary trend in the demand of loans by small borrowers and large industrialists along with escalating portfolio investments in stock exchanges of the country are directly linked with an exceedingly significant role of "disseminating information" to the structure of financial institutions. Further this paper more precisely attempts to assess how different financial institutions cope with problems arising from imperfect Information and draw some conclusions about financing availability. Furthermore, it analyzes how financial institutions in Pakistan react in the face of adverse selection and moral hazard emphasizing Debt and Equity financing.

2. Introduction

The idea that development of Financial System is an important factor in the economic development has been generally accepted since the pioneering work of Fredrick Taylor "The father of Scientific Management" However no consensus has been reached on what kind of financial development to pursue. Should one promote banks or develop security markets? Whether debt and security markets are substitutes or complements? How the structure of financial system does affect the cost of capital of medium and large scaled enterprises?

The recent trade development report of UNCTAD emphasized the importance of such questions and pointed out that structure of financial system may have a considerable influence on the cost of capital. Where short term financing preformed by banks and long term funding by capital markets, it argue that, the cost of

capital provided to firms is significantly higher than where both activities are performed by banks.

3. Imperfect Information Scenario

For different Financial Institutions the critical challenge is how to deal with the problems arising from imperfect information. In practice, financial institutions operate in an environment where full information on the borrower and on its projects is not available. Borrowers differ with respect to the quality of their projects: some may be riskier than others i.e. carry higher probability of default. While others have a good idea of their projects' characteristics (expected return and probability of success). In this critical situation Financial Institutions find themselves in dilemma of knowing the exact attributes of their clients and can only manage to observe the average rate of default. Since they are interested in having a return on their loans high enough to cover the cost of their capital, they charge the varying range of interest rate and premium to cover the default risk. This situation is frequently observed among Asian financial institutions specially those in Pakistan. State Bank's attempt to set a higher discount rate to curtail inflation puts a lending institution in an awkward position to sell their loans and fulfill cost of borrowing. This varying attitude persuades them to avoid proper information management thus their long term performance indicators such as Return on Capital (ROC) and Return on Asset (ROA) portray a sharp decline.

However this may bias the selection process against safe and but low yielding projects, thereby lowering the average quality of projects undertaken and inducing higher default rate. The increase in the default rate will prompt lenders to increase the risk premium percentage they require from their loans to their remaining clients. This important phenomenon will result in cancellation of some very safe projects. Taken to an extreme this adverse selection process may lead to only the worst projects being financed: the borrower will not be deterred by high interest rate, given that he intends to default anyway. This peculiar phase puts adverse effect on the smooth working of financial institutions, particularly in developing countries and will ultimately dissuades the economic performance.

Moreover in developing countries such as Pakistan, India and other SAARC nation's financial institutions are unable to monitor the borrowers' behavior after granting loan. The term[‡] Moral Hazard is the correct terminology being used by many Financial Analysts and gurus to depict this adverse situation. The lender when considering whether to grant a loan or not, looks at the past behavior of the borrower to the risk of the investment project. Once the loan is granted, there is nothing to prevent the borrower from adopting a riskier behavior i.e. investing in risky projects. Indeed the maximum loss for the borrower will be confined to his collateral as a result of defaulting whereas his maximum gain will have no ceiling thus varying the vulnerability of return with the level of risk borrower is prepared to take. Moral Hazard raises the problem of control exercised by the lenders on the borrowers. Looking at the historical perspective, Pakistani Financial Institutions and other loan providing agencies have lost heavily due to the information gap between them and borrowers. Table 2 exhibits the ultimate analysis solidifying the claim.

4. Debt Financing

Debt financing can be performed either through banks or security markets. However, these two channels react differently to imperfect information. Banks are better able to reduce the informational asymmetries by collecting information because banks borrowers are often all depositors and the credit history of the depositors of the deposits provides inside information on the quality of borrower. A deposit regularly supplied would indicate that its holder has stable financial situation and would be able to service and re-imbrues his loans. Whereas the volatile deposit would reflect the opposite? Frequent contacts with the borrowers also give lenders a better knowledge about their clients and help them evaluate less tangible but nevertheless important features such managerial skills and dynamism.

The holder of the security, by contrast, has to rely on publicly available information either granted by borrower or purchased

[‡] The concept comes from Insurance theory when insured person will be inclined not to undertake all the measures he would otherwise have taken to avoid the adverse event.

independently e.g. independents Audits and Bond ratings etc). Banks can therefore increase their credit ceilings without suffering a fall in their earnings net of default enabling them to grant credits to borrowers who would be excluded from financial markets.

Financial gurus have been consistently arguing that banks are in a relatively better position to deal with "moral hazards". The simple logic behind this statement that by being able to threaten to cut off credit in the future, banks can influence the behavior of their borrowers, since the latter will be afraid of the fact that by defaulting they will lose their good reputation and their credit supply. Therefore, if the potential for moral hazard is perceived to be substantial, banks will prefer to finance long term projects rolling-over short term credits, so as to be able to exert pressure on the borrower, rather than granting a long term loan. Besides, loan holder will face the threat that banks will intervene and restructure the firm. This greater control reduces the chances of default risk faced by banks and allows them to increase their credit ceilings. Mostly in Pakistan, Multinational Banks have introduced this pattern of policies. Many successful mergers show an improved performance. The imperfect information sustainability can be more precisely determined through analyzing either a merger or acquisition. For this purpose, we have selected Standard Chartered and Union Bank Acquisition. Following is the description of key determinants.

Table - 1

Key Financial Ratios of Standard Chartered and Union Bank Acquisition

Financial Ratios	Before Acquisition (2003)	After Acquisition (2007)	Net Change
Earning Per Share	768.46	948.82	+180.36
Current Ratio	1.01	1.29	+0.28
Debt Equity Ratio	21.93	10.41	-11.52
Equity to Total Asset Ratio	4.31	7.53	+3.22
Asset Turn over	0.06	0.10	+0.04

Source: Financial Statements of Standard & Chartered and Union Bank- 2003 and 2007.

Table-1 shows that an increased tendency in financial ratios after acquisition in 2007 is mainly due to a compliance of lender-borrower information gap to evade imperfect information dilemma.

Standard Chartered Bank attempt of acquisition proved to be a sound move as poor performing profitability indicators of Union Bank started behaving positively. Greater control of Standard Chartered marginalized the imperfect information gap thus all pivotal ratio of profitability and liquidity started showing a positive upward trend.

Stiglitz and Weiss (1981) argue that, to avoid being trapped in the adverse selection process, lenders will tend to impose[§] credit ceilings, since in the face of inadequate information about the true quality of borrowers' projects, the lenders best strategy will be to ration the credit rather than to increase interest rates. The reasoning behind this is that, while higher interest rate would increase the earning generated by lending, it would also induce the borrower to choose riskier projects. There will be a level for interest rate, above which the expected rate of return for the lender net of defaults will decrease. This will be the maximum interest rate lender will ask for. In Pakistan, it is the common practice of the lending authorities to frequently raise interest rate due to tight monetary policy implications by the State Bank or for the sake of raising their own profitability numbers. Further more, inducing the borrowers to opt for less riskier ventures will lead to a lower default ratio.

If this interest rate is not the market clearing one, disequilibrium will occur. Its extent will depend on the degree of informational imperfections. If informational problems are severe, lenders will not dare to increase their interest rates very much and will impose low credit ceiling. If informational problems are less acute, interest rates will be fixed higher, nearer to their clearing level. The aspect of imperfect information has been one of the major impediments behind rising outstanding and non-performing loans in Pakistan. Following is the sector wise quarterly categorization provided by State Bank of Pakistan for the year 2008.

[§] The optimal limit of credit allocation controlled by Central Bank through Reserve Requirement Ratio (RRR)

Table - 2
Outstanding Amount of Banks (Million Rupees)
(Analysis of 2008)

	March 08	Jun 08	Sept 08	Dec 08	Change (CY08)	Growth (%)
Corporate Sector	653.00	741.40	768.00	873.00	220.00	33.70
SMEs	225.20	231.70	240.60	284.00	58.80	26.1
Agriculture	102.70	108.70	117.80	119.30	16.60	16.1
Consumer Finance	83.00	103.20	130.60	152.60	69.60	83.9
Commodity Finance	70.60	90.00	85.00	122.10	51.50	72.9
Staff Loans	39.60	39.70	40.00	40.80	1.20	3.1
Others	31.30	36.10	29.50	29.50	-2.70	-8.7
Total	**1,205.4**	**1,350.8**	**1,411.5**	**1620.40**	**415.0**	**34.4**

Source: State Bank Pakistan (2007-08).

Table 2: Incorporates the claim of disseminating imperfect information and their possible consequences on the performance of Pakistani Financial Institutions. The sequential analysis have shown that long term debt extended to the corporate sector has proved to be defaulted and exhausted without gauging its potential use this resulted in a heavy backlog of evasion. This defaulting scenario has been one of the major factors behind a recent trend of mergers and acquisition in financial industry of Pakistan. The ratio analyses of ABN AMRO and Royal Bank of Scotland (RBS) acquisition have been providing same results leading towards negativity. The ignorance of Imperfect information settlement seems to be playing an active role and recent gloomy financial indicators are taking others financial institution towards a catastrophe.

Table - 3

Non- Performing Loans (Domestic and Overseas operations)

	As of 30-06-2007		As of 30-09-2008	
Banks/DFIs	**NPLs (Rs. In Millions)**	**NET NPLs (Rs. In Millions)**	**NPLs (Rs. In Millions)**	**NET NPLs (Rs. In Millions)**
All Banks and DFIs	189,418	48,313	187,858	43,859
All Banks	183,847	45,477	181,363	40,235
Commercial Banks	141,477	28,648	143,521	27,919
Public Sector Commercial Banks	39,599	5,922	40,571	6,240
Local Private Banks	99,846	23,934	101,033	23,084
Foreign Banks	2,031	(1,208)	1,963	(1,405)
Specialized Banks	42,370	16,829	37,841	12,315
DFIs	5,571	2,836	6,495	3,624

Source: State Bank Pakistan (2007-2008).

Table 3: The element 'Non- Performing Loans' is one of the major parameters behind the closure of moderately financial institutions. Table-2 depicts ever increasing margins of sinking loans depressing overall performance. The comparative analysis exhibits that in comparison to year 2008, preceding year was worst for the financial institutions. The escalating numbers were mainly due to clientele bankruptcy and closure of business entities. The imperfect information approach was neglected posing a heavy burden on financial institution of diverse kind such Commercial banks, Development Financial Institutions (DFIs) and Specialized Banks etc. in Pakistan.

5. Equity Financing

Equity markets face the same adverse selection and moral hazard problems as debt financing experiences. However, while the potential share investors have only access to the publicly

available information but they are in a better position to deal with moral hazard since their votes allow them to exert some control over managerial board through Proxy voting. Moreover, if they are strongly censure the company's policies and liquidity situation, they can sell their stocks. If the sufficient number of stock holders does this, the price of the stock will fall, increasing the firm's cost of capital in the future either leading it to a possible bankruptcy or exposing it to a hostile takeover. This looming danger provides an incentive for the mangers to satisfy their stockholders. The threat of this danger provides a second mechanism whereby capital markets can exert some control over company's management. Since sales by disgruntled shareholders can drive down the share price, thereby allowing others to purchase the company and fire the management, change the policies and reap the resulting capital gains.

Stock prices (indices) are quite sensitive to imperfect information scenario ultimately resulting in poor returns. Several empirical studies have indeed showed that actual stock prices may diverge considerably from the present value of their dividend flow. Shiller (1981) for instance provided comprehensive data for Standard ad Poor's 500 Composite Stock Price Index over the period 1871-1979 and for the Dow Jones Industrial Average (30 companies) for 1928 to 1979. He compares these indices with the present value of actual subsequent dividends paid by the companies they include. In each case, the results suggested the presence of important transitory components in stock prices that induced considerable deviation from stocks' fundamental values. They found that these transitory factors could account for up to three-fourths of the variation in return. Following trend regarding the price and return aspects of KSE-100 of Karachi Stock Exchange depicts the real impact of imperfect information on the instability of the index.

6. Financial Market Access

As already noted, the ability of banks to screen and monitor borrowers more efficiently than security markets enables them to extend credit to the borrowers that would otherwise excluded from the financial markets. Borrowers, however, differ not only with

respect to the quality of their projects but the amount of information they make available to the financial Institutions. Comparing the availability of information in context of well-established firms and new entrants into the market, reputed firms with sound market existence and about whom enough information is available for security markets to be able to evaluate them. But financing their activities through debt, banks and security markets will be close substitutes in terms of capital cost and availability. On the other hand as far as new entrants into the markets are concerned, the banks and security markets will unable to screen those as closely as they did in the case of reputed firms and therefore demand a risk premium to cover the higher default risk or even refuse them any credit.

One way to avoid this is for the borrower to provide more information to get better known to public, which is costly. However if firm is small these informational costs may be prohibitive. Small new entrants into the markets are likely to suffer most from Imperfect Information problem to face higher risk of being excluded from financial markets and to be the most dependent on bank credit to meet their external financing needs.

Several recent studies provided evidence consistent with these views. Financial analysts such as Mayer and Corbett have outline the limited role played by security markets in corporate finance in USA, UK, Japan, Germany, and France. While in Japan and France, bank funded more than a third of corporate physical investments in both countries. Table 3 exhibits comparative analysis on different modes of net sources of finance in major developed countries from 2000 to 2007.

Table - 4

Net sources of Finance (2000-2007) (% of Physical investment)

Modes of Finance	US	UK	Japan	Germany	France
Retention	87.9	106.3	70.4	75.0	62.3
Capital transfers	5.2	2.9	3.1	2.8	2.2
Short-term securities	0.9	2.7	3.5	3.1	1.1
Loans	25.2	3.0	33.8	11.9	37.7
Trade credit	1.4	1.7	1.2	1.4	1.6
Bonds	11.6	-2.1	1.9	-0.2	1.0
Shares	1.5	3.6	3.0	0.1	5.2
Other	17.1	3.5	0.2	13.4	1.5
Statistical adjustments	-5.6	11.0	0.4	0.8	5.0

Source: State Bank of Pakistan.

7. Conclusions

Analysis have shown that banks appear, therefore, to be better able than Security markets to gather information about their borrowers and exert control over them, thus avoiding adverse selection and reducing moral hazards. Further more, finding them in a better position to increase their credit ceiling and interest rates. In developing countries such as Pakistan and India gathering accurate information about the clients and predicting the future cash flow is a protracted course of action for the financial institutions. There are many factors, along with imperfect information access, responsible for this inefficient behavior ultimately resulting in poor performing institutions with low profitability.

8. Recommendations:

For smoothly running institutions there is an urgent need to evolve a simple and workable system of extracting information beneficial for both borrowers and lenders. But suggestive mechanism varies from one sector to another. For primary market concerns in Pakistan such as commercial banks should establish a Capital Audit Department which will analyze the periodic cash flow of the projects where potential bank capital is injected. The continuous stream of predicted cash flows will sustain the information gap and chances of moral hazard will be decreased. Equity capital, on the other hand, plays a major role in balancing

the capital structure of modern business entities. Its commonly presume that due to instable capital markets in Pakistan capital gains takes a downward trend pushing small and medium sized investors to default. But analyses have shown that it's majorly is due to imperfect information accessibility and its avoidance will lead to positive gains. In this regards a comprehensive role of Security Exchange Commission (SECP) Pakistan in pooling and disseminating accurate information to both buyers and sellers is desired. Following the model of New York Stock Exchange model a digital database should be constructed accessible to all concerned specially dealers and Over the Counter traders (OTC) in Pakistan.

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