Stock Market in Pakistan: An Overview

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ABSTRACT

This paper reviews the main features of the Stock market in Pakistan focussing on post-liberalization period. The aspects of the market investigated include liberalization of the market, integration the market with the world markets, trading and settlement mechanism, and corporate governance issues. Finally salient features of the market are compared to a selected set of emerging and developed markets. Pakistan's stock market is smaller in size but is significantly more active than the markets of this size. In recent years the market has provided very high returns to investors. In 2002 the market was declared as the best performing stock market globally.

Stock Market in Pakistan: An Overview

1. NTRODUCTION

The Karachi Stock Excahnge (KSE) is Pakistan's first and one of the oldest stock exchanges in emerging markets. KSE was established in 18 September 1947 just two months after Pakistan became an independent state. The other exchanges in Pakistan, the Lahore Stock Exchange (LSE) and the Islamabad Stock Exchange (ISE), were estbalished in 1974 and 1997 respectively. A recent estimate shows that approximately 85% of the turnover occurs at KSE, 14% at LSE and 1% at ISE. The following discussion is devoted to the KSE unless otherwise stated. At the end of year 2007, 671 companies were listed on the exchange with a combined market capitalization of US$70.18 billion and listed capital of US$12 billion. According to the Pakistan Economic Survey (2007), for the fiscal year 2006-2007 Pakistan's GDP is estimated to be US$143 billion. This makes market capitalization approximately 49% of the GDP. The most popular index tracking the overall prices on the market is the KSE-100 index which is a market capitalization weighted index of 100 stocks consisting of top market capitalization companies from each of the 34 sectors. The remaining 66 firms are selected on the basis of market capitalization without considering sector. The securities traded in the market include ordinary shares, preference shares, redeemable certificates and term-finance certificates (corporate bonds). The ordinary share is the most traded security. Since 2003, futures trading in some active stocks also started. The exchange plans to start options in the near future and according to their estimate by 2012, 50% of the trading will be in the derivatives[1].

Table 1 reports some statistics showing trends in the market over the post-liberalization period. The KSE-100 index and market capitalization in 1998 dropped as a result of sanctions on Pakistan over the issue of nuclear tests[2]. However, there is no visible impact of sanctions on trading value and turnover. The drop in the number of companies from 2001 to 2002 was in response to the implementation of the code of corporate governance in 2002. Some companies voluntarily de-listed as they found the code too costly to implement. Since 2001, the market has seen a rapid growth in capitalization and trading volume.

Despite its relatively small size the market has came under the limelight in recent years. According to the International Finance Corporation (1992) it was ranked third according to percentage increase in the local stock market index in 1991. More recently in 2002 Pakistan was reported to be the best performing market in the world according to the US news magazine Business Week[3]. This performance continued in the following three years albeit to a lesser extent. According to the Country Report for Pakistan by International Monetary Fund (2004), improved macroeconomic conditions, low interest rates, excess liquidity, and better regulation and supervision in the market were the factors that fuelled this rapid rise. With respect to the turnover ratio the market was ranked first and third in 2003 and 2006 respectively (Global Stock Markets Factbook, 2004; 2007).

2. LIBERALIZATION OF THE MARKET

According to Henry (2000), stock market liberalization is expected to reduce the liberalizing country's cost of equity capital by risk sharing between domestic and foreign investors[4]. An important prediction of this argument is to observe an increase in physical investment and subsequently economic growth following stock market liberalizations because a fall in a country's cost of equity capital will enhance the viability of investment projects that will foster subsequent economic growth. Starting in the early 1990s many emerging markets liberalized their capital markets by allowing foreign portfolio investment. Pakistan's market was officially liberalized in February 1991. According to Uppal (1998), the opening of the market to foreigners was abrupt and complete and was announced in the form of a comprehensive package aimed at deregulation and privatization of the economy. This includes lifting restrictions on the holding of foreign currencies and transfers of dividends and capital gains, allowing foreign companies to engage in exports and other trade liberalization policies. Issues and transfer of shares to foreigners were no longer required to have prior approval. However, the State Bank of Pakistan's permission is required to transfer more than 5% of shares in banks or financial institutions. There is no restriction on foreign ownership of stocks except in life insurance companies.

Bekaert and Harvey (2003) show that for the case of Pakistan real GDP growth declined and real investment growth became negative after liberalization. Further, in Bekaert and Harvey (1997) study, Pakistan is the only emerging market for which volatility after liberalization has greatly increased. A similar impact was also reported by Kim and Singal (2000). Thus the impact of liberalization on Pakistan's economy and the market does not appear to be positive at least in the years immediately following official liberalization. One interpretation of this outcome is that the market is liberalized but may not be integrated. Another reason might be that perhaps some other factors negate the impact of liberalization. For instance, in the post liberalization period, political instability could be gauged by frequent government changes in a short period. This period is also characterized by large budget and current account deficits and small foreign exchange reserves. A sequence of currency devaluations in 1995 to 1997 and negative impact of sanctions on Pakistan's economy after its nuclear tests in 1998 may also be considered as factors that might have influenced the impact of liberalization.

3. INTEGRATION OF THE MARKET IN THE WORLD MARKETS

The question of whether stock markets are integrated has gained enormous importance in the empirical literature in the last two decades. According to Bekaert and Harvey (2002) asset returns in segmented markets are determined by the local risk factors and associated risk premia while for integrated markets global risk factors and global risk premia are relevant. Recent studies are more inclined towards portfolio allocation benefits. The economic motivation behind these studies is to establish whether some markets provide diversification gains. The simplest measure of market integration is provided by the correlation coefficient between the country stock market indices. For the period February 1993 to January 1996, Smith and Walter (1998) report that the correlation of Pakistan's equity market with the US market is -0.01. In Harvey (1995) the correlation of Pakistan's equity market with the Morgan Stanley Capital International (MSCI) developed market index and the overall world market index is reported to be 0.02 and 0.04 respectively. Table 2 reports more recent evidence in this regard. Table 2 reports correlation of Pakistan's S&P/IFCG price index and aggregate indices of selected countries.

It appears that the correlation of Pakistan's equity market with developed markets is still very small. Relatively larger correlation is observed with regional markets such as India and other emerging markets especially with those of Latin America. To investigate integration of equity markets, Korajczyk (1996) used a measure of integration based on pricing errors from an international APT model. Using monthly data of 52 stocks from Pakistan's market for the period 1984-1992 he reports that pricing errors for Pakistan are relatively smaller but contrary to the intuition, the pricing errors were higher in the post-liberalization period. More recent studies have employed cointegration and Vector Autoregression (VAR) to test dynamic linkages of stock markets. Hussain and Saidi (2000) used cointegration analysis to investigate integration of Pakistan equity market with the developed markets of US, UK and Japan among others. Although cointegration was found, which indicates that prices of Pakistan's equity market move with these markets, any causal effect of these markets on Pakistan was not detected. This observation led them to conclude that Pakistan's equity market has diversification potential. Similarly, Naeem (2002) found cointegration of Pakistan's equity market with the US and UK in the pre-nuclear test period ranging from January 1994 to April 1998 but not for the entire sample including a later period. Using weekly country level index data from November 1987 to November 1999, Darrat and Zhong (2002) analyzed the permanent and transitory impact of US and Japan's equity markets on a set of 10 Asian markets including Pakistan. They found that, like most other countries in the sample, Pakistan's market appears to be driven permanently by the US market but the effect of the Japanese market is transitory. More recently Lamba (2003) used cointegration to test the dynamic relationship of the South Asian equity markets including Pakistan, India and Sri Lanka with the developed markets. Using monthly data from July 1997 to February 2003 Lamba found that while the Indian market is cointegrated with the US market, Pakistan's market appears to be relatively isolated. Summarizing this evidence it appears that, like many emerging markets, Pakistan is not yet integrated strongly with the developed markets. As a consequence, the thesis focuses on the domestic version of the asset pricing models.

4. TRADING AND SETTLEMENT MECHANISM

4.1 TRADING IN THE READY MARKET

The intermediary functions between the buyers and sellers of security in the KSE are performed by brokerage firms called members of the stock exchange. At the close of 2007, there were 200 members. There are 174 corporate members, 9 of which are listed companies. Pakistan's capital market witnessed very high trading volume growth resulting in excessive handling of physical certificates. To manage this large volume, the Central Depository Company of Pakistan (CDC) was established in September 1997. The CDC registers and maintains the transfer of securities in the form of an electronic book-entry. It transfers the ownership of securities without any physical movement. The investors have the option to purchase the shares certificate in paper form or as an electronic book-entry. Presently, 97 percent of settlements are routed through CDC[5]. The regulated trading in the KSE is carried out through computerized Karachi Automated Trading System (KATS). The trading can be divided into four segments each of which has its own settlement procedure. Most common is the T+2 settlement procedure[6] in which transactions are settled through the Clearing House which nets out the purchases and sales of the financial obligations of each member for the notified clearing period and issues instructions for deliveries of netted outstanding amount. The futures trading of the newly public offering firms are carried out in a separate segment of provisionally listed companies. The shares of the companies with minimum public offering of Pak Rupee 150 million are traded on this segment from the date of the settlement document. On final listing, trading is shifted to the ready market. Trading in futures contracts started in 2003. Presently the scrips of 30 well established companies are traded with a fixed contract period of one month. In the case of securities with books closure announcement, the trading is done through the spot T+1 settlement mechanism 5 days before the date of books closure.

Capital gain is currently tax exempted. The dividend income is however subject to withholding tax at different rates depending on the investor type. A minimum dividend tax of 5% is charged if the recipient is an insurance company. For other institutional investors the rate is 10%. For individual investors, the dividend income is treated as a separate block of income to be taxed as usual income.

4.2 TRADING IN THE OVER-THE-COUNTER (OTC) MARKET

In Pakistan and India until recently some versions of a unique form of financing instrument of securities in the over the counter market was prevailing which is termed as 'badla' which literally means 'in return'. An investor or a broker buys shares with the intention to make a profit but without committing money directly. That is the investor can carry forward his position from one settlement date to another in a speculative trade with an agreed interest rate called the 'badla rate' which is determined by supply and demand. As an example, suppose an investor purchases *X* shares of a firm at price *P* on a given date. The trade has to be settled according to T+2 settlement two days later. Suppose at the settlement date the investor does not have enough money to pay. The investor can arrange a financier (such as a bank or a broker) to receive the shares from the seller. At the same time the financier sells those shares to the investor at a price higher than *P*. Thus while the investor (the speculator) enjoys the deferment of payment, the financier earns interest at a rate considerably higher than the prevailing market interest rate. The badla rates are higher due to the fact that trading is relatively insecure as the exchange does not guarantee this transaction and also because of the added uncertainty that share price in the market may go down. This is essentially a carry forward trade through a repurchase agreement but is different from futures trade since the badla rate is considerably higher than the risk-free rate which applies in the case of futures trading.

The impact of badla financing on liquidity and price volatility is controversial. In the case of India's Bombay stock market, Berkman and Eleswarapu (1998) conclude that badla traders provide liquidity to the market. They show that when badla rule was abolished in December 1993, liquidity of the badla stock significantly declined. Contrary to this evidence, in a previous study using a matched sample Shah (1995) shows that systematic liquidity of the badla stocks is in fact lower. However, Eleswarapu and Krishnamurti (1995) show that decision by regulators to ban badla, because of fear of causing excessive volatility, has no economic grounds. Controlling other factors such as market capitalization and trading frequency, they show that residual variance of badla stocks is in fact lower.

In Pakistan both regulators and researchers appear to believe that this form of trading is the primary cause of excess volatility in the Karachi stock market. Siddiqi (2008) argues that when prices are decreasing, the financiers refuse to clear the payments causing brokers to default. The financier has incentive to withdraw from the falling market causing further falls in prices. Starting from August 2005, the Security and Exchange Corporation of Pakistan (SECP) started phasing out this trade by replacing it with a facility called Continuous Funding System (CFS) and by encouraging investors to use futures trading. Unlike badla financing, the new facility is based on margin financing which requires a collateral before a purchase can be made. Being aware of the idea that the short-term traders are a source of liquidity in the market, the CFS essentially increases the financing limit of financiers to a higher level[7]. Also the CFS rates are set at a maximum of 10% plus one-month Karachi Interbank Offer Rate. The leverage position of the brokers is specified to be a maximum of 15 times of their 'Net Capital Balance'. The CFS rules also require the financier to set Value-at-Risk based exposure margins.

5. REGULATORY ENVIRONMENT AND CORPORATE GOVERNANCE

Good corporate governance facilitates the development of efficient capital markets, reduces risk and enhances a country's ability to mobilize and allocate investment which is essential to economic growth. The primary regulator of corporate business and the non-banking financial sector in Pakistan is the Security and Exchange Commission of Pakistan (SECP) which was created by legislation in 1997. The SECP is an autonomous body which replaced the former Corporate Law Authority, a division of the Ministry of Finance. The chairperson of the SECP is, however, still appointed by the finance ministry. Pakistan's central bank, the State Bank of Pakistan (SBP) is responsible for regulating the financial and banking sector. SECP issued a separate code for insurance companies. No code is mandated for mutual funds. The SECP supervise the stock exchanges and sets listing requirements. Pakistan's corporate business can be mainly divided into multinational corporations, family owned enterprises and state-owned enterprises. Hamid and Kozhich (2006) state that a majority of listed corporations are family-owned enterprises who control the business via pyramid structure and cross-shareholdings. The family-owned enterprises are usually less motivated for innovative business strategies and are usually satisfied with their position in the market.

The code of corporate governance was promulgated by the SECP in 2002. Corporate governance is also covered in the Companies Ordinance 1984 and the Banking Company Ordinance of 1962. A major corporate governance rule requires the listed companies to disclose their financial statements to the public[8]. The quarterly accounts need to be submitted within 30 days and half-yearly accounts within 60 days of the period end. The listed companies are required to pay the dividends within 45 days of the declaration. The code also regulates the fair governance of the stock exchanges by appointing and removing the managing directors of exchanges. The code prohibits the chairperson of the boards of the exchanges to be from a member brokerage firm. Minority share holders owning 12.5 percent of shares can request fresh election of directors of the companies. Every listed company is required to hold at least one AGM every calendar year within 3 months of the year end. Implementation of the code of corporate governance is a listing requirement. To make trading in the OTC market more regulated, reporting of off-market transactions are made mandatory. To curb insider, trading a rule states that an "associated" person is prohibited from trading in his company's shares if he has information (obtained during the previous six months) which is not "generally available", and which would affect the price of the securities, or related to any company transaction. "Associated" persons include officers, employees, and any "professional or business relationship which gives access." The company is required to disclose ownership by insiders in the annual report.

Regarding the implementation of the rules, The Corporate Governance Country Assessment for Pakistan by the World Bank (2005) indicates that despite initial resistance of the code from the issuers and market participants, compliance with the code has been improving. Multinationals, leading banks, and notably family controlled enterprises are creating a more transparent and modern corporate governance structure. An institute for the corporate governance has been established in Islamabad to promote awareness of good corporate governance practice. However, some listed companies found this code too strict and costly to comply with and voluntarily delisted. For instance, the number of listed companies in 2001 prior to the implementation of code in 2002 was 747 and decreased to 671 by end of 2007. The World Bank's report also compares the aspects of Pakistan's performance on corporate governance to the world average under the Observance of Standards and Codes (ROSC) program. In many categories Pakistan's performance appears to be above average as can be seen from Table 3 which reports the average corporate governance scores over subcategories.

6. PAKISTAN'S STOCK MARKET IN AN INTERNATIONAL PERSPECTIVE

This section compares recent salient features of the Pakistani stock market with a selected set of countries. The set of countries selected are mostly those that have been shown to have quite varied levels of stock market development in a comparative study by Demirguc-Kunt and Levine (1996). These authors developed indices to measure different aspects of stock market development. In their study, the US and Japan were among the most developed markets; Hong Kong, Korea, Singapore and Malaysia were very highly developed markets; Turkey, Greece, Argentina and Pakistan were classified as under developed markets and Columbia, Venezuela, Nigeria and Zimbabwe were among the most underdeveloped markets. In addition we include India as a regional market. The data and indicators are selected from Global Stock Markets Factbook (2004, 2007), World Development Indicators and online World Bank Group Private Sector Resources[9].

6.1 FINANCIAL DEPTH

To ascertain a general picture of the role played by financial intermediaries usually broad monetary aggregates such as M3 are employed. M3 includes currency, demand deposits, time deposits and liabilities of money market mutual funds. The ratio of M3 to the size of economy measured by GDP is considered to be an indicator of financial depth of the economy. Figure 1 compares this indicator for Pakistan with the set of selected countries. The financial depth of Pakistan's economy appears to be lower than India and the East Asian countries but it is considerably higher compared to the Latin American and African countries considered.

6.2 STOCK MARKET SIZE

Stock market size is indicated by the ratio of market capitalization to GDP. Figure 2 indicates that with respect to size, Pakistan's stock market is still one of the smallest apart from some African and Latin American emerging markets. One of the reasons for this low capitalization ratio is the general level of illiteracy and in particular financial illiteracy. According to an estimate, only about half a percent of the population invests in the stock market. Generally, the investment in Pakistan is in land holdings, real estate properties, bank assets, gold and cash holdings. The stock market is generally not seen as a means of mobilising saving and diversifying risk. At the corporate level, the family firms which had political connections enjoyed cheap loans from the government sector banks which are often never paid back. Khawaja and Mian (2005) show that politically connected firms in Pakistan borrow 45 percent more and have 50 percent higher default rates than non-politically connected firms and such preferential treatment occurs exclusively in government banks. Also due to lack of entrepreneur skills of the managers of family based firms the rate of retained earning is higher through which future investment can be financed.

6.3 LIQUIDITY

Liquidity refers to ease in buying and selling securities. Liquid markets greatly facilitate the role of stock markets as channelling savings to investment for future economic growth. Two frequently used liquidity measures are 'Value Traded' and 'Turnover Ratio'. The latter being the ratio of dollar value traded to market capitalization. Figure 3 presents the Turnover Ratio for the selected countries. The Turnover Ratio of Pakistan's stock market is the highest among the selected countries. In fact for 2006, only the Saudi Arabian stock market was ahead of Pakistan in the Turnover Ratio. For the year 2003 the turnover of Pakistan's stock market was the highest in the world. Among the main reasons of high trading activity in recent years are high GDP growth rates, low interest rates, relatively stable political conditions and injection of liquidity in the form of remittances by overseas Pakistanis who are relying more on formal banking channels following a global ban on informal means of money transfer. However an alternative view is that liquidity is a result of short-term speculative trading by badla traders in the over-the-counter market which was prevailing in recent years in various forms. The State Bank of Pakistan's Financial Market Reviews (2005) indicates that over 90% of trading was in the stocks for which badla trading was allowed. Nevertheless these stocks are among the most liquid.

6.4 RETURN ON INVESTMENT

Aggregate return on equity and dividend yield can be used to gauge profitability of investment in emerging markets. Figure 4 compares the return on equity for the selected markets for which recent data are available. This profitability measure is a ratio of earnings per share to last year's book value per share multiplied by 100. Figure 4 indicates that the rate of return on Pakistan’s stock market were very high. The regional market of India was the close competitor. If only capital gain is considered then Pakistan’s stock market resulted in the highest percent gain in the local index return in 2002 among global equity markets. Some investors view dividend yield as a more interesting part of profitability of investment. Figure 5 indicates that from this aspect also Pakistan’s stock market compares favourably with the global markets. The ‘Divided Yield’ is the ratio of dividend per share and market price per share expressed in percentage terms. In the World Bank Private Sector Database the most recent data for Pakistan was available for 2004 therefore the comparison corresponds to 2004 values of the dividend yield.

6.5 VOLATILITY

To get an idea of whether the high returns in Pakistan’s stock market are associated with high level of risk, Figure 6 presents volatility index for the selected countries. The volatility index is the annualized standard deviation of the market returns. That is if daily data are used then volatility index is calculated as the square root of the number of trading days multiplied by the standard deviation of market index. Figure 6 shows that while volatility in Pakistan’s stock market is high, the difference from most other emerging markets is not large in relation to the returns that the market has offered in the past few years.

6.6 MARKET CONCENTRATION

Market concentration means the dominance of few stocks in the market. This is an undesirable characteristic of stock markets. Market concentration cause additional risk since the poor performance of a few firms can damage the value of the entire market. Additionally, in emerging stock markets some sectors may be represented in very different proportions from their share in the economy which may be an indicative of the market not being driven by macroeconomic fundamentals. In Pakistan's economy textiles is a dominant industrial sector which accounts for nearly 60% of Pakistan exports but in the stock market, textile firms are not the market leaders. Figure 7 presents market capitalization of the 10 largest firms for the selected countries. Pakistan's market seems to be among the most concentrated while the US market is the least. Among the dominating stocks in the KSE are the public sector oil and gas exploration and distribution companies OGDC, POL, PPL, and PSO. Pakistan is an energy deficient country so the investment in these firms amid rising energy prices appears to yield superior returns. Agriculture accounts for a quarter of Pakistan's GDP. So the leading fertilizer manufacturers firms ENGRO, FFCG are among the dominant companies. The other important companies are PTCL (a telecommunication firm), HUBCO (a power generation company) and NBP and MCB (two commercial banks). Figure 8 presents the turnover concentration of the top 10 stocks. This shows that trading is also highly concentrated in Pakistan. The trading concentration figures for some countries including Pakistan vary considerably (for example in 2004 and 2005 the percent was 54.4 and 81.04 respectively for Pakistan) and therefore a two year average is presented.

6.7 FIRM PERFORMANCE AND GROWTH

The price-earnings ratio is a source of forward looking information about a firm's growth. Figure 9 presents the median price-earnings ratio for selected countries for which data are available in the World Bank database. Developed countries and India appear to have high price-earning ratios. An average firm in Pakistan is placed roughly in the middle of the emerging markets firms. Another indictor of corporate performance and growth is the Tobin's Q. In the database the Tobin's Q is calculated as the ratio of market value of equity plus total assets less book value of equity minus deferred taxes to total assets. Figure 10 presents the median Tobin's Q ratio for the selected countries. With respect to this measure, an average Pakistani firm appears to be ranked in a better position. The high market value of assets seems to be driven by recent performance of the market which has caused a great increase in the share prices.

6.8 ABILITY TO RAISE CAPITAL

In Pakistan and generally in emerging markets, the capital mobilising ability of stock markets is limited. Recent years, however, have seen considerably greater interest in IPO activity when many government enterprises offered a small portion of their shares for free floating. This includes some commercial banks and oil and gas exploration companies. Figure 11 presents the dollar IPO value to the market capitalization for selected countries[10]. For some emerging markets data are not available. IPOs form a relatively smaller component of Pakistan's market capitalization compared to some emerging markets. For developed countries the percentage is smaller due to their large market capitalization.

7. CONCLUSION

This paper provides an overview of Pakistan's stock market focusing more on recent developments. Pakistan's stock market is smaller in size but is also a market with high trading activity. There are two views on the high level of trading. On the one hand recent political and macroeconomic developments are considered to increase market liquidity and provide higher capital gains to investors. The other view is that this high level of trading is indicative of short term traders who exploit a special carry forward trading arrangement. In any case, Pakistan's market has recently been reported to be one of the best performing markets. New corporate governance codes are being implemented that intended to ensure fair trading and better information disclosure by corporate firms to help the market make better resource allocation functions. In many aspects Pakistan's stock market appears to be operating as a typical emerging market with high returns, high volatility, high market concentration and relative inability to mobilize new investment. Pakistan's market is relatively segmented from the major markets providing a potential venue for diversification.

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Notes:

[1] Official website of the exchange (www.kse.com.pk)

[2] Pakistan conducted nuclear tests on May 1998 in response to similar tests by India.

[3] www.cnn.com on January 1, 2003. The newspaper USA Today also reported this news.

[4] Henry (2000) defines liberalization as a country decision to allow foreign investment. Liberalization of a large number of developing countries in a very short span of time in late 1980's and early 1990's might be due to influence of the IMF, World Bank and other donor and monitoring agencies. Stiglitz (2004) describes that the liberalization in developing countries was persuaded by IMF and US Treasury to foster the free market doctrine. There might be concern that the pressure by monitoring agencies to liberalize the markets was premature as seen by Pakistan's experience.

[5] Investor Guide (2008), Security and Exchange Commissions of Pakistan.

[6] T+3 settlement procedure has been recently replaced with T+2. This settlement ensures share delivery in two days following the day on which the trade takes place.

[7]On November 2006 the CFS limit was increased from Rs 25 billion to Rs 55 billion and the number of scrips allowed for CFS trade was increased from 30 to 71.

[8]The links to the website address of most of the listed companies providing financial statements are given in the KSE website.

[9] http://www.financial-indicators.org

[10] There seem to be some disagreement in the new listing data in the World Bank database and the Karachi Stock Exchange website. In the KSE website, the number of new listings is reported to be 17 and 19 for 2004 and 2005 respectively while in the World Bank Private Sector Database the number of IPO is 2 and 5 respectively for the two years.

[11] www.financial-indicators.org

Table 1: An Overview of Trading Growth on the Karachi Stock Exchange

Year	# Listed Companies	Value Traded (US$ Million)	Trading Volume Turnover Ratio (%)	Market Capitalization (US $ Million)	KSE-100 Index
1992	628	980.0	12.7	8030.0	1243.7
1993	653	1844.0	18.7	11600.0	2164.7
1994	724	3198.0	26.9	12300.0	2049.1
1995	764	3210.0	29.2	9286.0	1497.8
1996	782	6054.0	58.7	10639.0	1339.9
1997	781	11476.0	111.3	10966.0	1753.8
1998	773	9038.0	114.3	5418.0	945.2
1999	765	21056.8	345.2	6964.7	1408.9
2000	762	32973.7	475.5	6581.4	1507.6
2001	747	12454.8	226.8	4944.0	1273.1
2002	712	26029.9	251.9	10199.7	2701.4
2003	701	66598.1	497.4	16578.6	4471.6
2004	661	73871.9	322.5	29002.2	6218.4
2005	661	140995.8	376.3	45936.8	9556.6
2006	652	126559.6	251.4	45517.6	10040.5

Source: World Development Indicators and Global Stock Markets Factbook (2007).

This Table reports data on salient features of the Karachi Stock Exchange over the post liberalization period. The values presented correspond to end of year. The KSE-100 index started on November 1991 with a base value of 1000.

Table 2: Correlation of Pakistan Stock Market with the World Markets (Dec 2001-Dec 2006)

Market	US	UK	Japan	India	Latin America	Asia	Europe
Correlation	0.09	0.05	0.02	0.26	0.32	0.23	0.16

Source: Global Stock Markets Factbook 2007

This Table presents the Pearson's correlation coefficients of Pakistan's S&P/IFCG price index and aggregate indices of selected countries

Table 3: Comparison of Corporate Governance Scores of Pakistan and the World Average

Corporate Governance Aspect	Pakistan Average over sub categories score	World Average over sub categories score
Right of Shareholders and Key Ownership functions	58	55
Equitable treatment of share holders	67	52
Role of Stake holders in corporate governance	81	70
Disclosure and transparency	75	71
Responsibilities of the board	62	55
Overall Average	69	61

Source: World Banks Corporate Governance Country Assessment for Pakistan (2005) for the fiscal year 2002-2004.

This Table reports the average scores on various categories of corporate governance performance. The averages are calculated by the author from the Summary Table given on page 8 of the World Bank Country Assessment Report.

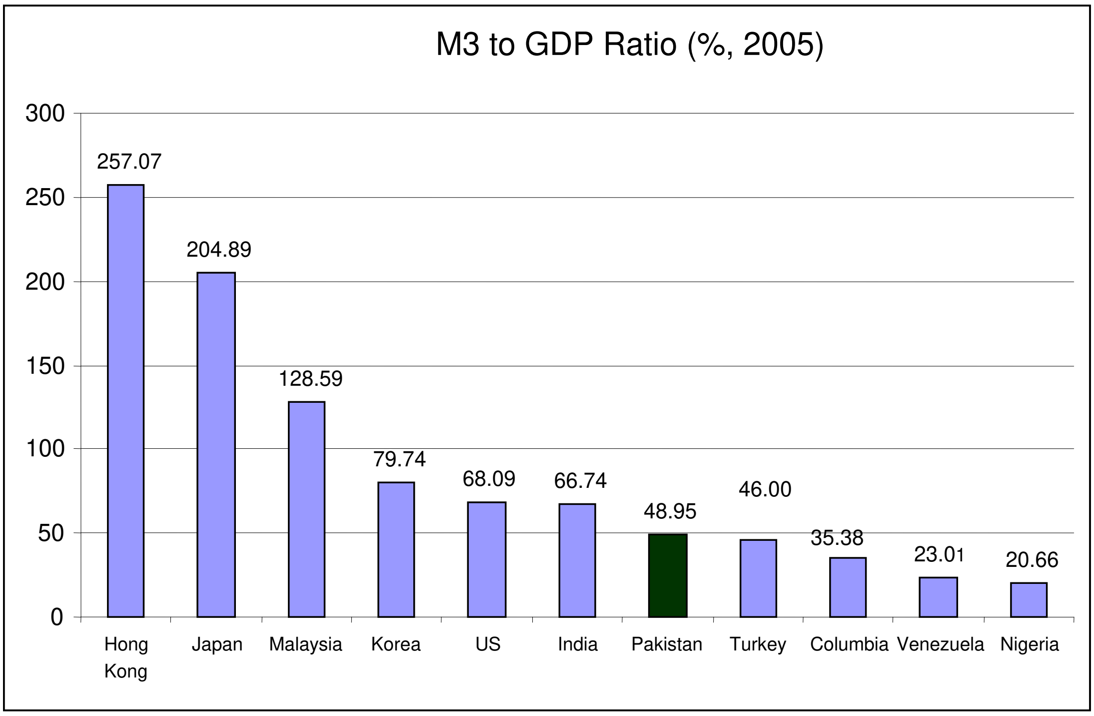

Figure 1: Comparison of Depth of Pakistan's Financial System to the Selected Countries

Source: World Development Indicators

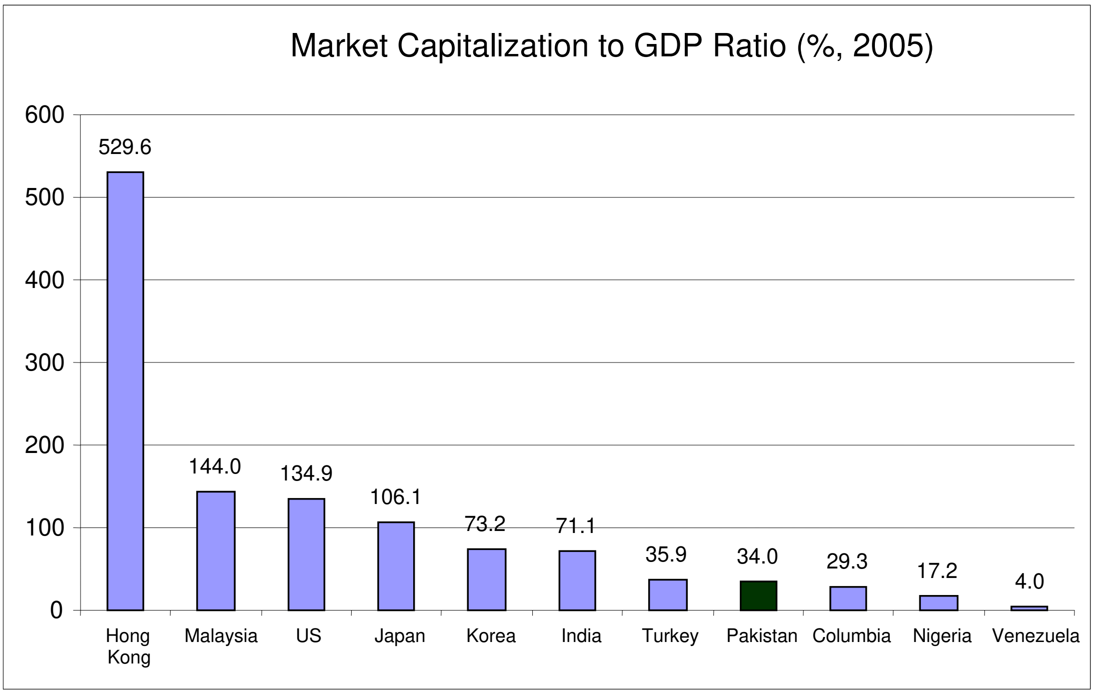

Figure 2: Comparison of the Size of Pakistan's Stock Market to the Selected Countries
Source: Financial Indicators, World Bank Group Private Sector Resources Database[11]

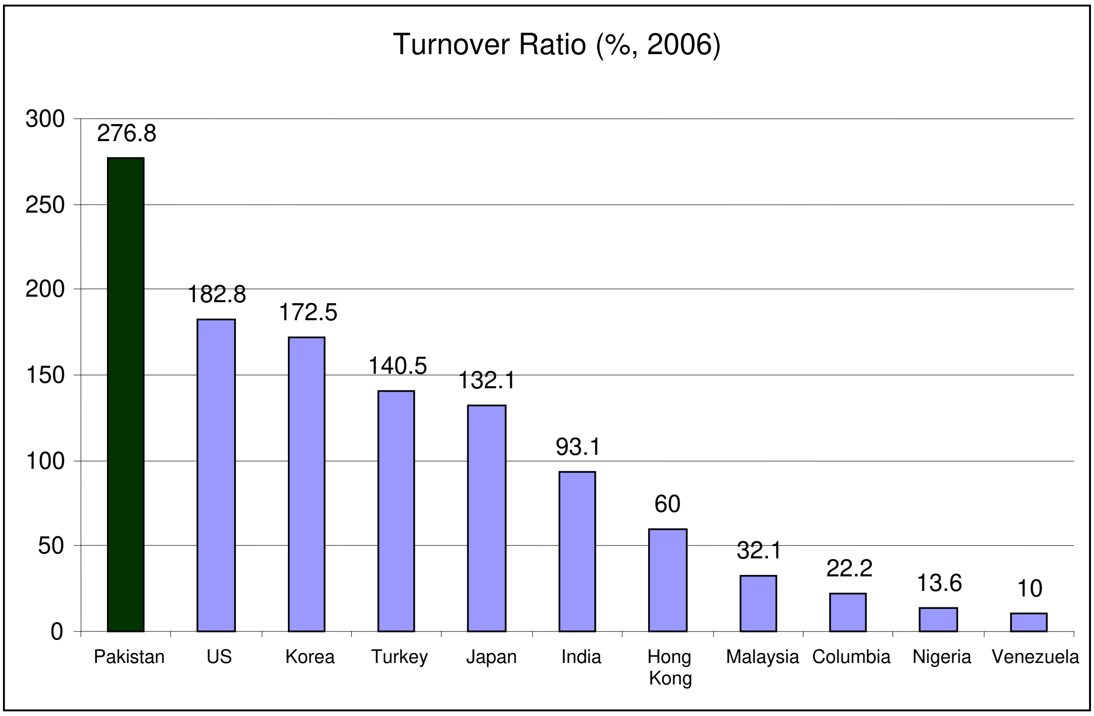

Figure 3: Comparison of the Trading Activity of Pakistan's Stock Market to the Selected Countries

Source: Global Stock Markets Factbook 2007

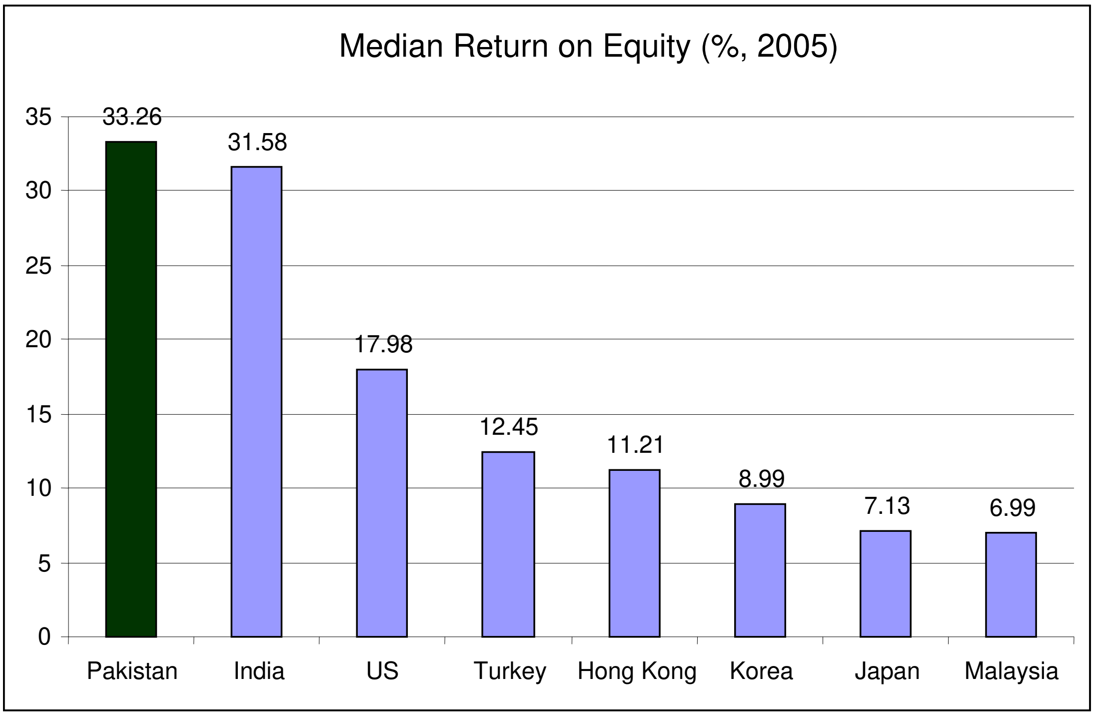

Figure 4: Comparison of the Return on Equity of an Average Pakistani Firm to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

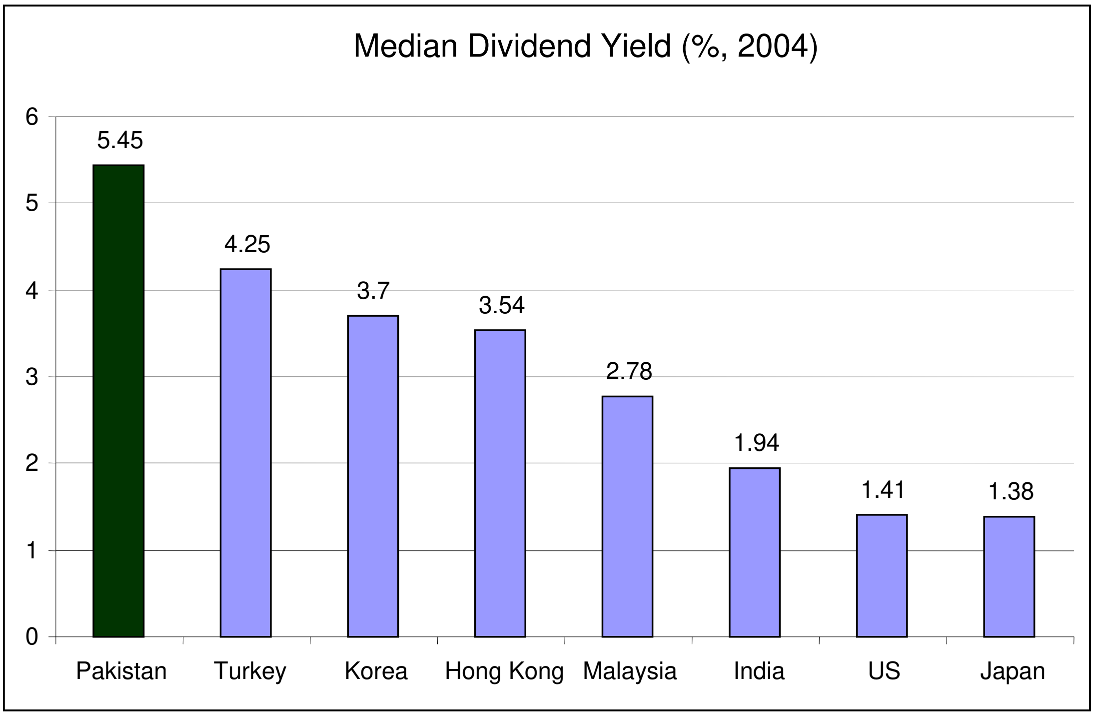

Figure 5: Comparison of the Dividend Yield of an Average Pakistani Firm to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

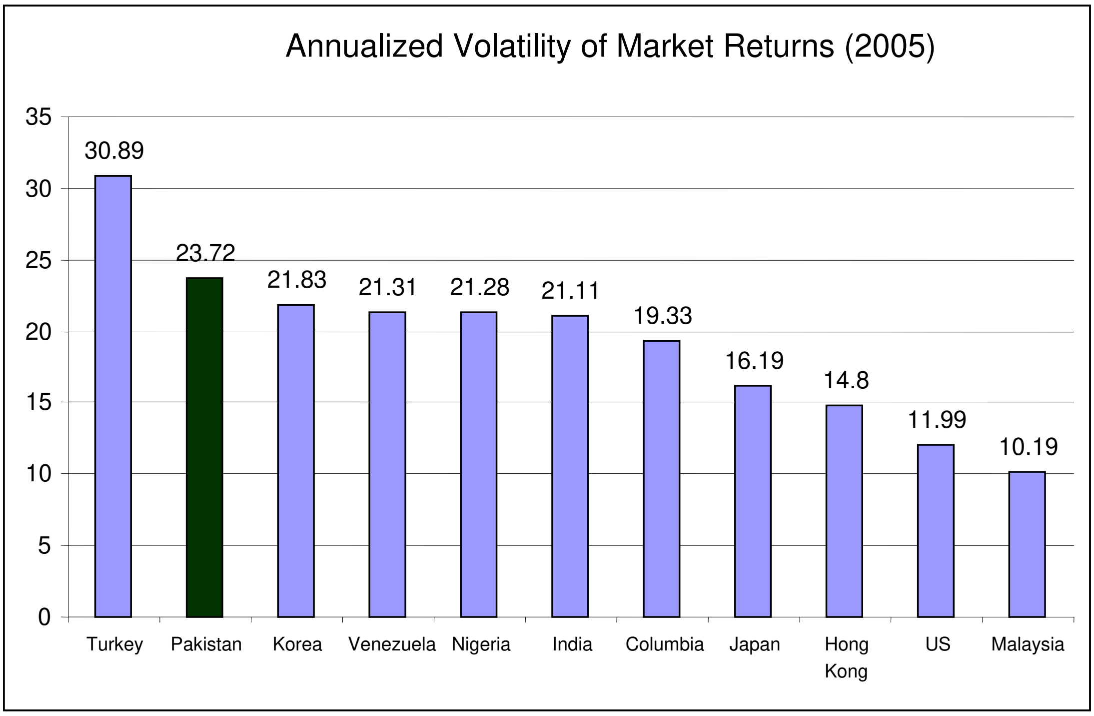

Figure 6: Comparison of the Volatility of Pakistan's Stock Market to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

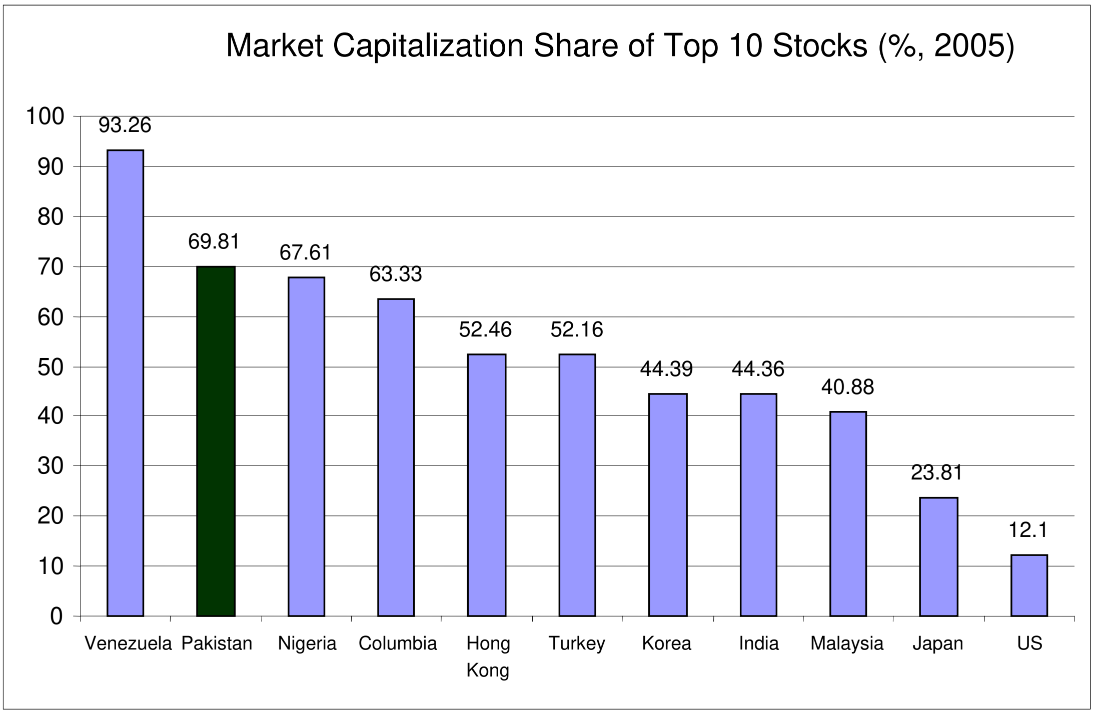

Figure 7: Comparison of the Market Cap Concentration of Pakistan's Stock Market to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

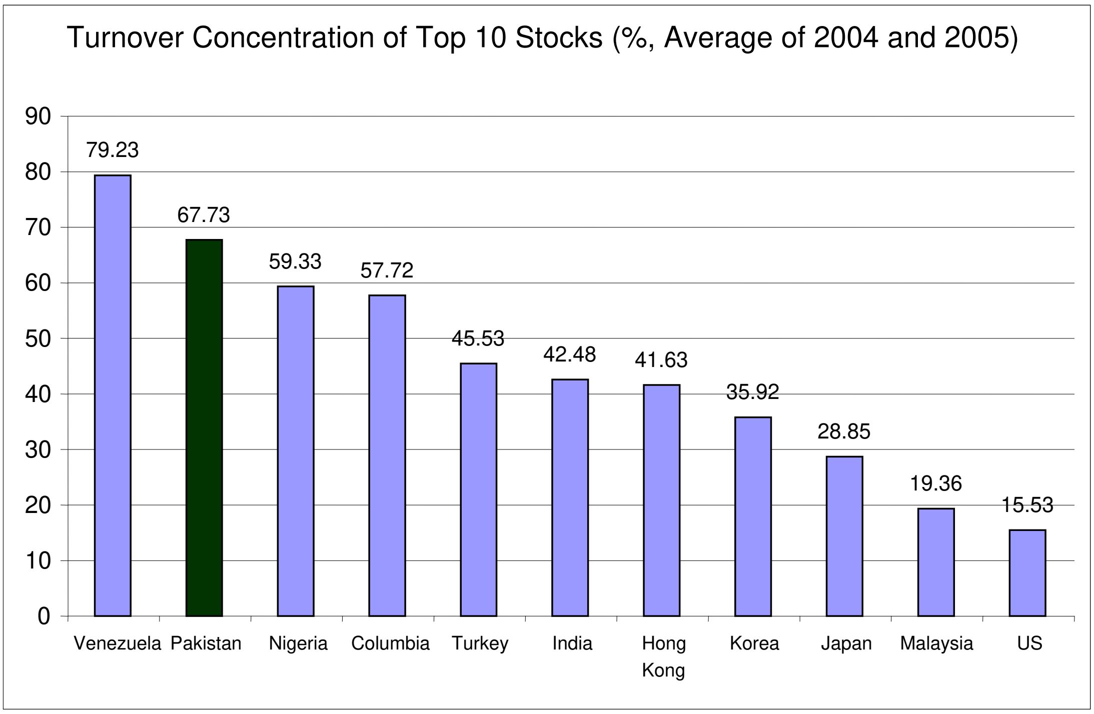

Figure 8: Comparison of the Trading Concentration of Pakistan's Stock Market to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

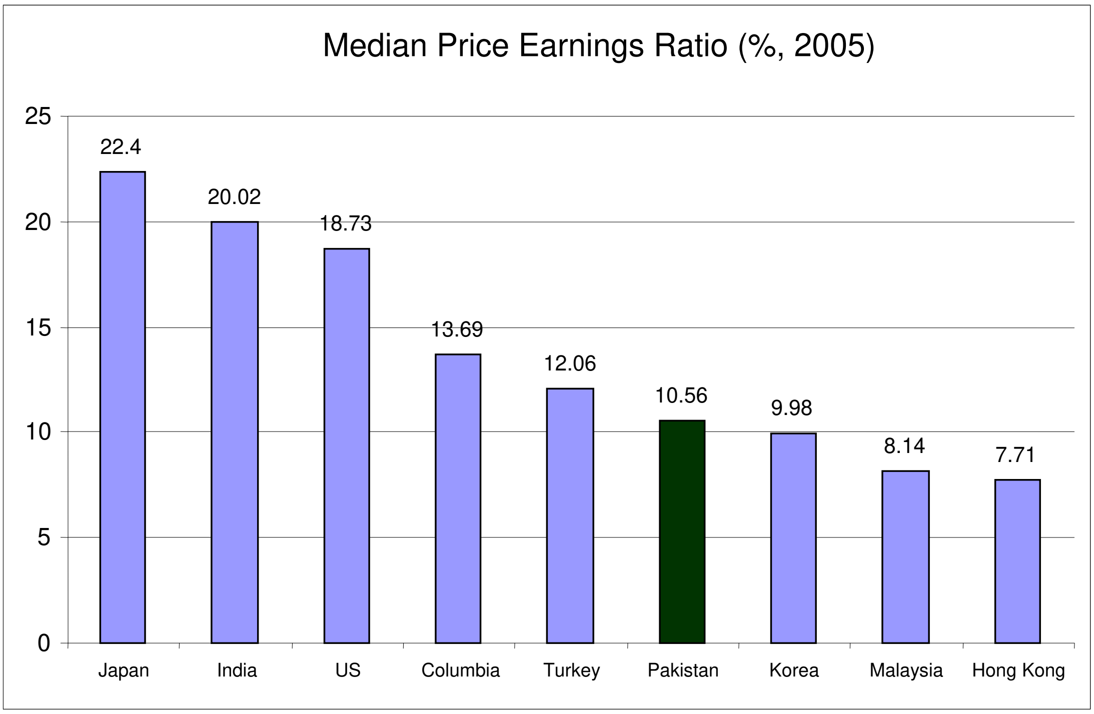

Figure 9: Comparison of the Price Earning Ratio of an Average Pakistani Firm to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

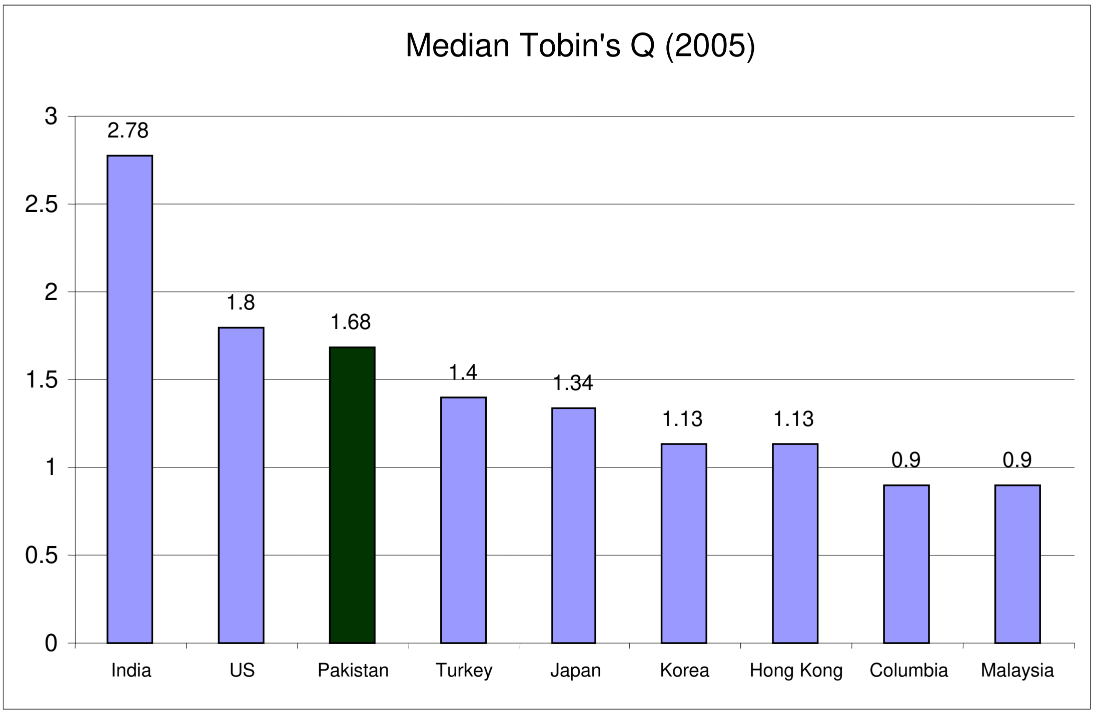

Figure 10: Comparison of the Tobin's Q of an Average Pakistani Firm to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database

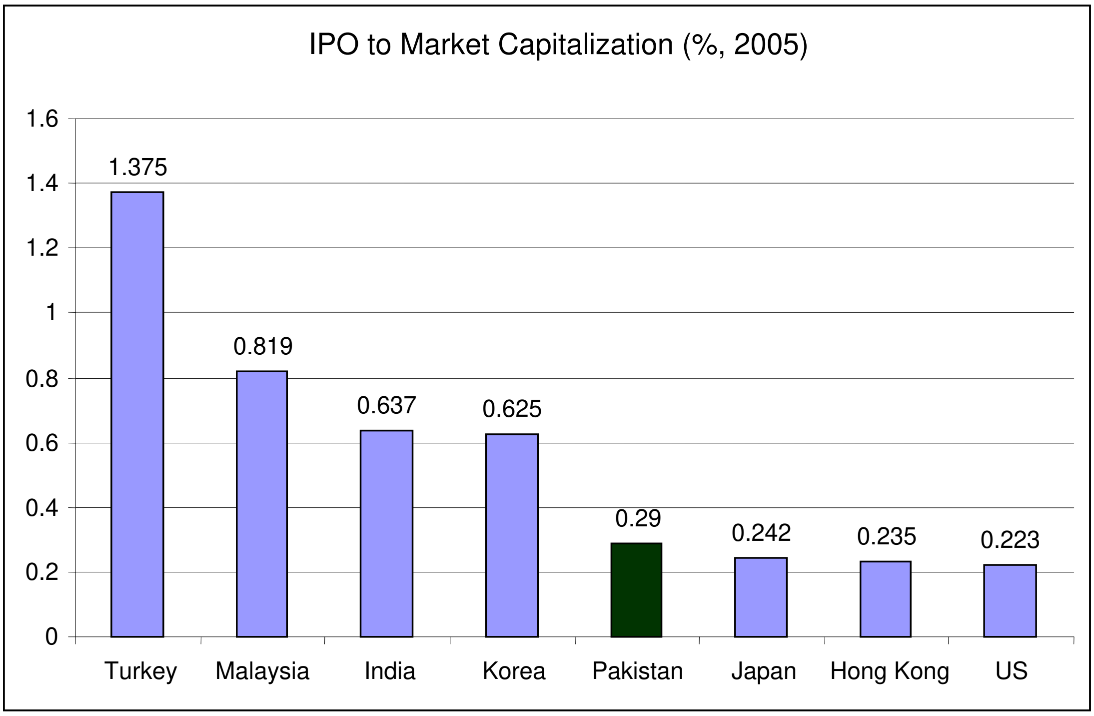

Figure 11: Comparison of the Resource Mobilising Ability of Pakistan's Stock Market to the Selected Countries

Source: Financial Indicators, World Bank Group Private Sector Resources Database