American Journal of Business, Economics and Management
2015; 3(2): 45-49
Published online January 30, 2015 (http://www.openscienceonline.com/journal/ajbem)

Why equity market activity grow more rapidly in relationship to foreign direct investment

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To cite this article
Khuram Shafi, Liu Hua, Zahra Idrees, Amna Nazeer. Why Equity Market Activity Grow More Rapidly in Relationship to Foreign Direct Investment. *American Journal of Business, Economics and Management*. Vol. 3, No. 2, 2015, pp. 45-49.

Abstract
A country is said to be developed only if the economy of that particular country is growing. The development and growth of an economy is beneficial for the country, as it acts as a major indicator for the growth of all the main players of the society that helps in the development of the country. One of the main players that are affected by the economic development includes the equity market, also known as the stock exchange, of the country. This study revealed the relationship between the growth of the equity market activity and the development of the economy. Foreign Direct Investment (FDI) and Gross Domestic Production (GDP) are used for measuring the development of the economy while the market price index is used to measure the growth of the equity market activity. Data for the last 20 years were collected on FDI, GDP and index for the purpose of this study to find the relationship between the development of the economic and the equity market growth. The results showed that there is a highly significant relationship between the equity market activity and the economic development and the growth of the former is totally dependent upon the development of the later.

Keywords
Finance, Growth, Development, Equity Market, Economy

1. Introduction & Background

Equity market is the market where the securities of all the registered companies are traded. The growth of this market is beneficial for the country but is dependent upon many factors. Economic development is one of the factors that affect the equity market growth. An economy is considered as developed when there is an increase in the FDI and GDP of the country. This paper investigates about the affect of economic development on equity market growth and found the relationship between these two. In principal, companies needing new finance should issue equity if they are above their target debt level and debt if they are below. With no flotation costs, such adjustments could be made instantaneously and continuously. In practice how- ever, the existence of significant flotation costs means that companies should plan issues to minimize both flotation costs and the costs of deviating from their target ratio.

Armen et al., (2001) investigated about the choice regarding debt or equity. They showed that every firm has a target for debt ratio which is set by viewing the costs and benefits of debt to adjust its capital structure. These targets may change with the profitability and stock price of the firm and there may be difficulties to achieve these targets. This problem results in the decision whether to repurchase or issuance of stock. Chang-Jin et al., (2004) investigated about the positive relationship between stock market volatility and the equity premium. They also showed that there is a positive relationship between equity premium and stock market volatility. Dan et al., (2003) investigated the relationship between financial performance and equity. They studied about the relationship of the ownership and performance of the firms. There is little support found for the agency relationship and they proposed a new theory for ownership-performance research in future. Daniel and Roman (1978) studied about the debt-equity ratio. They showed that GAAP can be a misleading method for the preparation of debt/equity ratios for analysts, for example balanced sheets under LIFO method show inventory prices low from market, which is impossible in today's inflationary environment. Same is the case with marketable securities and the value of plant and reserves for deferred taxes are also misleading. Elhanan (1989) investigated about the debt and equity swaps. He studied about the situations under which the transactions related to debt-equity swaps are beneficial for both debtor and creditors. These swaps are not beneficial for both parties under a market failure and effect the investment level of debtor's country. Ellen et al., (1999) investigated about the debt-equity hybrid securities. They studied that the Trust preferred stocks show hybrid feature as preferred stock and debt for the purposes of financial statements and tax respectively. These stocks provide many benefits including; favorable balance sheet and tax savings. Kevin and Vinod (1996) investigated about the relationship between the quality awards and the market value of the firm by showing the abnormal changes in the stock prices when these awards are publicly announced. There are abnormal returns associated with these announcements and the reaction of the stock market is also positive. Laxmi (1988) studied the relationship between Debt/Equity ratio and expected common stock returns. He showed that there is a positive relation between expected common stock returns and debt/equity ratio while taking beta and the firm size constant. The risk premium is something different from the premium associated with debt to equity ratio. Malcolm et al., (2003) studied about the relationship between stock prices and the investment of equity-dependent firms. They showed that the movements in the stock prices influence the corporate investment as there is a great impact of stock prices on the firms that need external finance from equity for investment. Narayanan (1988) studied about the relationship between debt and equity under asymmetric information. He showed that outside equity financing is less beneficial for the firms than debt financing under asymmetric information as the performance of the firm is only known to the insiders. The market efficiency increases as unprofitable firms can not survive under these conditions. Pankaj (2005) studied about the difference between electronic and floor trading. There is a reduction in the cost of capital due to electronic trading because it enhances the liquidity of stock markets and also the information can be exchanged with ease in Financial Market Design and the Equity Premium: Electronic versus Floor Trading. Paul (1982) investigated about the choice of financing weather debt or equity. He showed that the choice for debt or equity changes with time. This choice depends upon many factors like the condition of the market, security prices' history, target level of debts of firms, size of company, and risk of bankruptcy and composition of assets. Peter (2000) studied about the relationship among stock market liberalization, economic reform, and emerging market equity prices. He showed that stock market liberalization provides abnormal returns of 3.3 percent per month in dollar at its initial stage. It also results in the reduction of the cost of capital as the risk is shared between the domestic and foreign agents. Rebecca (2003) studied about the international capital flows under asymmetric information and costly monitoring. He investigated about the relationship between equity trade and small open economy. The domestic firms increase their capital inflows by monitoring their activities for the purpose of strengthening the international financial system. Domestic firms prefer equity trade over international borrowing as developing economies show confidence in international equity than debt in recent years. Robert and Bruce (2002) investigated the relationship between the growth of small firms and internal finance. They showed that the finance generated by the internal resources affects the growth of the small firms. This affect is greater on those firms that can not access the external sources of financing like equity. Rune and Mihkel (2002) investigated about the capital structure and the complementarities between debt and new equity. They studied about the decisions made by owners due to imperfections in the capital market regarding investment and finance. They show the dependency of the debt and equity financing on the internal funds of the firm by presenting a theory. Samuel (1970) studied about the stockholder loans and the debt-equity distinction. He investigated about the difference in the tax treatment for debt and equity financing. There is a tax relief for the corporations financed by debt but no relief for corporations financed by public that is by equity. Sanford (1962) investigated about debt financing and investment value of common stock. He studied about the significance of the relationship between debt and the value of equity investment for the principals and agents of an organization. The things which are examined includes; the conditions of raising the new capital, cost of debt financing, management assessment for this cost and guidelines for management in promoting the interest of investors. Stijn (1993) investigated about the alternative forms available for external financing. He showed that the alternative forms of external financing are becoming more important. These alternative forms of external financing include foreign direct investment, project lending, portfolio investment and some other forms of private lending. Trevis et al., (2003) investigated about the relationship between CEO stock options and CEO equity against IPO Valuations. They studied about the reaction of the investors on stock options and equity ownership under IPOs by firms. These influence the premium applied by the investors. The level of CEO equity affects the CEO's stock option effectiveness. Zsuzsanna (1998) investigated about the optimal financial contracting and studied the relationship between debt and outside equity. He showed that outside equity results in the formation of an agreement between the equity holder and management. According to this agreement, the equity holder has the right to dismiss the manager regardless of his performance and also to sue him for his misdeeds. The firms with low cash flow variability have higher debt/equity ratios and vice versa.

2. Methodology

Equity market growth is used as a dependent variable. Equity market is the market where the securities of all the registered companies are traded. The growth of this market is beneficial for the country but is dependent upon many factors. Equity market growth can be measured with the help of index price. If this price is growing, this means that there is a growth in the equity market and vice versa. This paper discusses only one factor that is Developed Economy.

Developed Economy is used as an independent variable. An economy is considered as developed when there is an increase in the FDI and GDP. FDI is the amount of investment coming directly from foreign countries. This investment can be in any form like acquisition or establishment of a new subsidiary and the like. Jeff (2009) find out that foreign direct investment (FDI) represents the investment in fixed assets in foreign countries that can be used to conduct business operations. Examples of FDI include a firm's acquisition of a foreign company, its construction of a new manufacturing plant, or its expansion of an existing plant in a foreign country. GDP includes all the goods and services produced domestically inside the boundaries of a country within a given period of time. It is hypothesized that;

Ho: Developed economy affects the equity market growth.

Ha: Developed economy does not affect the equity market growth.

The data for this study is collected for past 20 years that is for 20 years and by using internet from various websites. These websites include; State Bank of Pakistan (SBP) Official Communication, 6 April 2007; and past communication. Federal Bureau of Statistics (FBS) Official Communication, 22 May 2007; and other publications, Pakistan Institute of Developing Economics and Karachi Stock Exchange.

3. Data Analysis

For data analysis, we have to used regression analysis. Firstly The regression equation is given as under:

Stock Index = - 4361 + 1.31 FDI + 7.52 GDP

This regression equation shows that if there is 1% increase in FDI then the equity market will grow with 1.31% and if there is 1% increase in GDP then the equity market will grow with 7.523%.

The column of Predictor in Table1 shows the variables used in this paper, Coefficient shows the impact of independent variables on dependent variable which is 1.3100 of FDI and 7.523 of GDP on index (equity market growth). This means that if there is 1% increase in FDI then the equity market will grow with 1.31% and if there is 1% increase in GDP then the equity market will grow with 7.523%. T values show the efficiency of the variables which is 3.18 for FDI and 4.38 for GDP; these values show that the variables are highly efficient. P values show the significance level of the variables which is 0.005 for FDI and 0.000 for GDP showing that these variables are highly significant. The relationship between dependent and independent variables is 93.7%, shown by R-Sq, shows that FDI and GDP have strong relationship with the index (equity market growth).

Table 2 is for the analysis of the variance level. The value of F in this table shows the variance; its value is 125.54 shows that there is no variance element in the values of these variables, P value shows the significance level of that model which is 0.00 which means this model is highly significant and there is no chance of error.

***Table 1.** Coefficient Analysis*

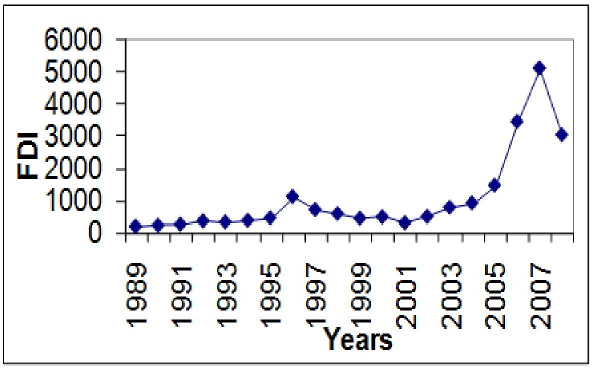
Predictor	Coefficient	Standard Deviation	T	P
Index	-4361	1087	-4.1	0.001
FDI	1.3100	0.4115	3.18	0.005
GDP	7.523	1.719	4.38	0.000

***Table 2.** Analysis of Variance*

Source	DF	SS	MS	F	P
Regression	2	298118	1490	1	0.
Error	1	20185	1187		
Total	19	31830			

Graphical Interpretation:

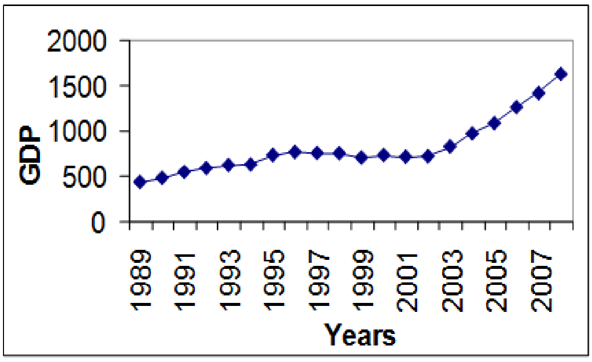
The data used in this study can be seen with the help of graphs. Graph1 shows the changes in the amount of Foreign Direct Investment (FDI) in Pakistan with respect to time for the last 20 years. The graph clearly showed that during the year 1996-97 the FDI increased from $439 million to $1106 million after that it decreased to $700 million during1997-98. Another sudden increase in FDI was shown during 2004-07 when FDI suddenly increased from $906 million to $5125 million and then suddenly decreased to $3038.8 million during 2007-08. The main reason behind these sudden changes was political conditions in the country during respective years.



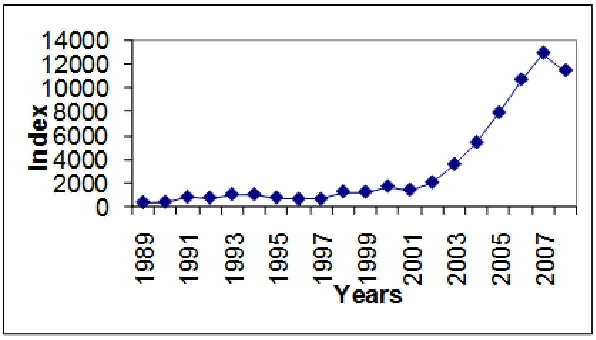
***Graph 1.** Changes in FDI with respect to Time*

Graph2 shows the changes in the amount of Gross Domestic Production (GDP) in Pakistan with respect to time for the last 20 years. The graph clearly showed that there is a gradual increase in the GDP from 1989-2002 after which there is a sudden increase in the amount of GDP from $726.8 million to $1645.5 million during 2002-08. The main reason behind these sudden changes was political conditions in the country.

Graph3 shows the changes in the market index price in the equity markets of Pakistan with respect to time for the last 20 years. The graph clearly showed that there is a gradual increase and decrease in the index price from 1989-2002 after which there is a sudden increase in the price of index from 1331.53 to 12877.65 during 2001-2007 but then suddenly decreased to 11402.14 during 2007-08. The main reason behind these sudden changes was political conditions in the country during respective years.



Graph 2. *Changes in GDP with respect to Time*



Graph 3. *Changes in Index with respect to Time*

4. Conclusion

This paper finds the relationship between the economic development and equity market growth. Foreign Direct Investment and Gross Domestic Product are used for measuring economic development while market index is used to measure the equity market growth. FDI is the amount of investment coming directly from foreign countries while GDP includes all the goods and services produced domestically inside the boundaries of a country within a given period of time. Index shows the price of the stocks of different companies, registered at stock exchange, traded at the equity market at particular date. This study had tried to reveal the relationship between the economic development and the equity market growth that the former affect the later. The results showed that there is 93.7% strong and significant relationship between FDI & GDP and Index. The relationship showed that if there is 1% increase in FDI then the equity market will grow with 1.31% and if there is 1% increase in GDP then the equity market will grow with 7.523%. Due to all these results and highly significant relationship between economic development and equity market growth the hypothesis Ho can not be rejected which means that the developed economy affects the equity market growth and the equity market activity grow more rapidly as an economy develops. So it is concluded that there exist a relationship between the growth of the equity market activity and the development of the economy. Foreign Direct Investment (FDI) and Gross Domestic Production (GDP) are significant for measuring the development of the economy while the market price index measures the growth of the equity market activity. It can also be concluded that there is a highly significant relationship between the equity market activity and the economic development and the growth of the former is totally dependent upon the development of the later.

References

[1] Armen Hovakimian, Tim Opler, Sheridan Titman (2001), "The Debt-Equity Choice, The Journal of Financial and Quantitative Analysis", Vol. 36, No. 1, pp. 1-24

[2] Chang-Jin Kim, James C. Morley, Charles R. Nelson (2004)," Is There a Positive Relationship between Stock Market Volatility and the Equity Premium?", Journal of Money, Credit and Banking, Vol. 36, No. 3, Part 1, pp. 339-360

[3] Dan R. Dalton, Catherine M. Daily, S. Trevis Certo, Rungpen Roengpitya (2003), "Meta-Analyses of Financial Performance and Equity: Fusion or Confusion?", The Academy of Management Journal, Vol. 46, No. 1, pp. 13-26

[4] Daniel A. Lasman and Roman L. Weil (1978), "Adjusting the Debt-Equity Ratio", Financial Analysts Journal, Vol. 34, No. 5, pp. 49-58

[5] Elhanan Helpman (1989)," The Simple Analytics of Debt-Equity Swaps", The American Economic Review, Vol. 79, No. 3, pp. 440-451

[6] Ellen Engel, Merle Erickson, Edward Maydew (1999), "Debt-Equity Hybrid Securities", Journal of Accounting Research, Vol. 37, No. 2, pp. 249-274

[7] John D. Martin and David F. Scott, Jr (1974)," A Discriminator Analysis of the Corporate Debt-Equity Decision", Financial Management, Vol. 3, No. 4, pp. 71-79

[8] Jeff Madura (2009), "International Financial Management", eighth edition.

[9] Kevin B. Hendricks and Vinod R. Singhal (1996)," Quality Awards and the Market Value of the Firm: An Empirical Investigation", Management Science, Vol. 42, No. 3, pp. 415-436

[10] Laxmi Chand Bhandari (1988), "Debt/Equity Ratio and Expected Common Stock Returns: Empirical Evidence", The Journal of Finance, Vol. 43, No. 2, pp. 507-528

[11] Malcolm Baker, Jeremy C. Stein, Jeffrey Wurgler (2003), "When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms", The Quarterly Journal of Economics, Vol. 118, No. 3, pp. 969-1005

[12] M. P. Narayanan (1988), "Debt Versus Equity under Asymmetric Information", The Journal of Financial and Quantitative Analysis, Vol. 23, No. 1, pp. 39-51

[13] Paul Marsh (1982), "The Choice Between Equity and Debt: An Empirical Study", The Journal of Finance, Vol. 37, No. 1, pp. 121-144

[14] Pankaj K. Jain (2005)," Financial Market Design and the Equity Premium: Electronic versus Floor Trading", The Journal of Finance, Vol. 60, No. 6, pp. 2955-2985

[15] Peter Blair Henry (2000),” Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices”, The Journal of Finance, Vol. 55, No. 2, pp. 529-564

[16] Rune Stenbacka and Mihkel Tombak (2002),”Investment, Capital Structure, and Complementarities between Debt and New Equity”, Management Science, Vol. 48, No. 2, pp. 257-272

[17] Robert E. Carpenter and Bruce C. Petersen (2002),” Is the Growth of Small Firms Constrained by Internal Finance?”, The Review of Economics and Statistics, Vol. 84, No. 2, pp. 298-309

[18] Rebecca M. Neumann (2003),” International Capital Flows under Asymmetric Information and Costly Monitoring: Implications of Debt and Equity Financing", The Canadian Journal of Economics / Revue canadienne d'Economique, Vol. 36, No. 3, pp. 674-700

[19] Stijn Claessens (1993),” Alternative Forms of External Finance: A Survey”, The World Bank Research Observer, Vol. 8, No. 1, pp. 91-117

[20] Samuel David Cheris (1970),” Stockholder Loans and the Debt-Equity Distinction”, Stanford Law Review, Vol. 22, No. 4, pp. 847-862

[21] Sanford L. Margoshes (1962),” Debt Financing and Investment Value of Common Stock”, Financial Analysts Journal, Vol. 18, No. 4, pp. 67-72

[22] S. Trevis Certo, Catherine M. Daily, Albert A. Cannella Jr., Dan R. Dalton (2003), “Giving Money to Get Money: How CEO Stock Options and CEO Equity Enhance IPO Valuations”, The Academy of Management Journal, Vol. 46, No. 5, pp. 643-653

[23] Zsuzsanna Fluck (1998),” Optimal Financial Contracting: Debt versus Outside Equity”, The Review of Financial Studies, Vol. 11, No. 2, pp. 383-418