

Determinants of Foreign Investment in Pakistan



By

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04/MBA (1.5)/PIDE/2015

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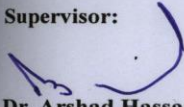
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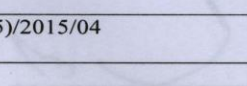
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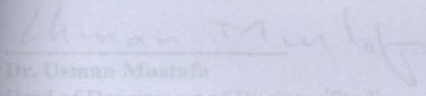
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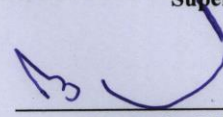
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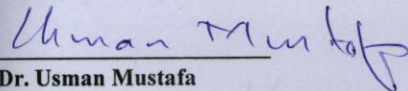
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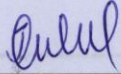
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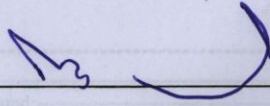
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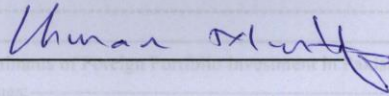


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Table of Contents

List of Tables	i
List of Abbreviations	ii
ABSTRACT:	iii
CHAPTER 1:	1
Introduction:	1
1.2 Objectives of the Study:.....	4
1.3 Research Question:	4
1.4 Plan of the Study:	5
CHAPTER 2:	6
Literature Review	6
2.1 Theoretical Background:	9
2.2 Theoretical Framework:	10
Figure 2.1 Country Level Determinates of Foreign Portfolio Investment in Pakistan:	10
Figure 2.2 Firm Level Determinates of Foreign Investment in Pakistan:	11
2.3 Hypotheses	11
CHAPTER 3:	13
Data and Methodology:	13
3.1 Country Level Determinants of Foreign Portfolio Investment in Pakistan:	13
3.1.1 Estimation Techniques:	14
3.2 Firm-level determinants of foreign investment in Pakistan:	15
3.2.1 Estimation Techniques:	17
CHAPTER 4	18
Data Analysis and Discussion	18
4.1 Results and Discussion: Country Level determinants	18
4.1.1 Descriptive Statistics:	18
4.1.2 Correlation Analysis	20
4.1.3 Results of Regression Analysis of country level variables:	21
4.2 Results and Discussion: Firm Level determinants	23
4.2.1 Descriptive Statistics	23
4.2.2 Correlation Analysis	24
4.2.3 Results of Regression Analysis of Total Foreign Investment at Firm Level	27
4.2.4 Findings of Regression Analysis of Foreign Institutional Investment at Firm Level.....	29
4.2.5 Findings of Regression Analysis of Foreign Institutional Investment at Firm Level:	32
CHAPTER 5:	35
Conclusion:	35
5.2 Recommendations	36
5.3 Directions for Future research	37
References:	38
Appendix:	41

List of Tables

Table 4.1	Descriptive Statistics of Country Level factors	18
Table 4.2	Correlation between Country Level Variables	20
Table 4.3	Impact of Macroeconomic Variables on FPI	22
Table 4.4	Descriptive Statistics Firm Level Variables:	23
Table 4.5	Correlation of Firm Level Variables	25
Table 4.6	Results of Total Foreign Investment model with firm level variables	28
Table 4.7	Evidence on Foreign Institutional Investment flows at firm level	30
Table 4.8	Evidence on Foreign Direct Investment flows at firm level	33

List of Abbreviations

S. No	Abbreviation	Definition
1	ADR	American Depositary Receipts
2	BS	Board size
3	CEM	Common Effect Model
4	CEO	Chief Executive Officer
5	CGY	Capital gains yield
6	DY	Dividend yield
7	FDI	Foreign Direct Investment
8	FEM	Fixed Effect Model
9	FI	Foreign Investment (Total)
10	FII	Foreign Institutional Investment
11	FPI	Foreign Portfolio Investment
12	GDP	Gross Domestic Product
13	GDR	Global Depositary Receipts
14	Inf.	Inflation rate
15	Int.	Interest rate
16	IPI	Industrial Production Index
17	NACM	Number of Audit Committee Meetings
18	NED	Non-executive/independent Directors
19	PSE	Pakistan Stock Exchange
20	REM	Random Effect Model
21	TO	Trade Openness
22	XR	Exchange rate

Determinants of Foreign Investment in Pakistan

Abstract:

In the era of globalization, economies are more concerned about the capital flows. Currently the target is not only retaining the domestic capital but also attracting the foreign investors to inject capital in the host country. Not only the country level policies but also firm level policies determine the flow of foreign investment. Policy makers are of great concern about attracting foreign investment in the country. This study has discussed the macroeconomic and company specific factors important in determining the foreign Investment to Pakistan. Time series data is used for country level determinants and panel data of 100 listed non-financial companies are selected on the bases of market capitalization for the period of 2005-2015. Results found that, performance of stock market and liquidity of country significantly affect the FPI in Pakistan. Size of the firm, financial leverage, dividend yield and global depositary receipts influence the foreign investments at firm level. The study suggests that, policy makers at both country and firm level should take steps to create investor friendly environment to attract foreign investment.

Keywords: Foreign investment, FPI, FDI, FII, Firm level determinants, Pakistan.

CHAPTER 1:

Introduction:

Two main pillars of an economy, i.e. households and business sectors, play fundamental role in the economic structure of any country. Their contributions to the factor markets and product markets, respectively, are basics of country's economic nerves. Their part to the financial market of the country also worth mentioning here, but problem rises in case of saving-investment gap and about financing any shortfall in current account. In such situations, countries entail alternative financial flows to fill the gap and finance the current account deficits. On the other side of coin, foreign investors are looking for investment opportunities to diversify their portfolio risk and chase higher returns by investing in economically stable economies. In the current uncertain global situation, it is crucial for officials to point out the driving forces for foreign investment. To fill the gap, policy makers modify their policies to attract the foreign investors whether at country-level or firm-level.

There is a competition among economies for attracting more investors to their economic system and boost up the economic activities at the country level. Same is the situation for the firm level policy makers; they compete for attracting more foreign investors to invest in their firm to trigger the expansion and growth process of particular firm. On the other hand, foreign investors have to make two phase decisions while choosing where to invest internationally. First pillar is which country to invest and secondly which particular firm to invest. Therefore, initially the study needs country or macroeconomic level determinants of foreign investment, extended to firm-level determinants of foreign investment. Aggarwal et, al. (2005), examine the preferences US-mutual funds make while investing in emerging markets, including Pakistan. They consider country and firm level determinants for fund allocation by US-Mutual Funds. This study extends their work by considering foreign portfolio investment at country level and foreign institutional and direct investment at firm level for any kind of foreign investor instead of US mutual fund investors.

At macroeconomic or country level determinants of foreign portfolio investment considered in this study are as follows: Interest rate differentials are, traditionally, crucial to the capital flows in the host country. Foreign investors chase higher returns to compensate the interest rate differences. But, Verma and Prakash (2011) opine that interest rate is not significant, neither for FII nor for FDI flows to India and Waqas et al. (2015) explain the significance of interest rate on foreign portfolios flows to South Asian countries. Secondly, where foreign investors consider returns from investments in assets, at the mean time they also look after exchange rate flexibility. Flexibility in exchange rate provides them extra cover to earn through the differences in exchange rates. Thirdly, investors prefer returns but also check the creditworthiness and capacity to pay in case of a default. Country's foreign reserves after payments for imports or any other short run obligations can show the ability to pay in case of any default.

Fourthly, foreign investors try to diversify the risk by investing internationally. So, it is expected not to invest in the market where high variability exists. Stock market volatility discourages foreign investment until and unless it compensate for the variations in it. So this study examines the significance of variations in stock market on foreign investment. Fifthly, trade policy of a country is considered important in its economic growth. Traditional economic theories suggest that, restriction on trade may cause slow economic development or growth and vice versa. But Yanikkaya (2003) contradict with findings of theoretical studies and conclude that, under certain conditions trade restrictions can promote growth, especially in case of developing countries. Point of consideration here is that, foreign investors how consider trade openness and economic growth perspective in their decision making. Sixthly, the traditionally central banks try to avoid inflation and of course deflation for the sake of stability in the economy. Inflation discourages foreign investment by showing instable macroeconomic fundamentals. Finally, economic growth in any country reflects the reliability of macroeconomic practices and shows healthy economic activities and resultantly profitable environment for capital flows, particularly for foreign investors. Above mentioned macroeconomic factors are tested against inflow of foreign portfolio investments in Pakistan.

On the other side for the firm level determinants of foreign investment the study considers following factors: Size of the firm is usually considered by the investors while making their decision. Size of the firm can be determined by the total assets owned by the firm and that is considered as primary determinant of profitability due to the concept of economies of scale. Bradshaw et al. (2004) and Aggarwal et al. (2005) are of the view that firm size (visibility) among crucial determinants of US fund's investment decisions. Secondly, calculating total return on stock as a tool for estimating the equity prices help investors in decision making. Sum of capital gain and dividends against initial stock price provides ground for investment and reflect the past performance of firm's stock. Thirdly, firms with more use of fixed-income modes of finance, i.e. debt or preferred stock, have to pay more against interest and it is expected that it negatively affect the earnings of shareholders and earnings per share decreases. This increases financial risk to the shareholders, which as a result, discourage investors to invest in firms with higher degree of financial leverage. To check the effect of leverage on the foreign investments in the firms operating in Pakistan, the study considers leverage ratio.

Fourthly, firms issue GDR/ADR to easily access the investors in international capital markets. GDRs/ADRs are denominated in foreign currencies and also pay dividends in the same foreign currency and can be of either types, listed or non-listed in foreign stock exchanges. Due to these characteristics previous citations (Lang et al. 2003; Aggarwal et al. 2005; Garg and Dua, 2014) argue that the foreign investors are more confident and comfortable to invest in firms issuing GDRs/ADRs. This study has tried to figure out the effect of GDRs/ARDs as a determinant of foreign investment in Pakistan. Fifthly, while expressing a dividend as a percentage of current share prices, investors make their investment decisions. Some investors may be interested in income from dividend and other may be interested in share price appreciations. Likewise, the foreign investors also make their decisions on the bases of dividend yield. This study examines the effect of dividend policy on foreign investment at firm-level in Pakistan. Finally, corporate governance of a company is more or less like a country's governance system. Considering the shareholders as voters; directors as elected legislatures and managers as bureaucracy members, the study believes it as sensitive to foreign investors as country level governance environment is. After issuance of Corporate Governance Code (2002)

by Securities and Exchange Commission of Pakistan, this study tried to find how organizations improved their governance structure by checking the corporate governance effect on foreign investment.

Foreign investors can be of two type, foreign direct investors (10% or more investment) and foreign institutional investors (less than 10% investment). This study tried to combine the firm level determinants with macroeconomic level determinants of foreign investment, to examine their effect on the inflows and retaining the foreign capital in Pakistan. It is expected that, this study will contribute to the literature and results provide insight to the policy makers for their future decisions for attracting foreign investment in Pakistan.

This study addresses the determinants of foreign investment at country level and firm level simultaneously, for Pakistan. This, further, facilitates the country and the firms in setting up policies to attract the foreign investors.

1.2 Objectives of the Study:

- To explore the role of macroeconomic factors in determining the inflow of foreign portfolio investment in Pakistan.
- To study the role of firm-level factors determining the foreign investment in Pakistan.

1.3 Research Question:

The study answers following questions:

- What are the country level determinants of foreign portfolio investment in Pakistan?
- What are the firm level determinants of total foreign investment in Pakistan?
- What are the firm level determinants of foreign institutional investment in Pakistan?
- And what are the firm level determinants of foreign direct investment in Pakistan?

1.4 Plan of the Study:

The study is planned in following order. Section 2 highlights the earlier literature on country level and firm level determinants of foreign investment. Section 3 explains data collection, methodological framework, and variable description. Section 4 discusses the empirical results of the study and Section 5 summarizes the study with results, recommendations and directions for future.

CHAPTER 2:

Literature Review

Previous works only consider macroeconomic factors as determinants of foreign investment and very little evidences are available for firm-level determinants of foreign investment. Looking in the literature, this section will highlight the previous work on macroeconomic and firm-level factors and their relative importance in determining the foreign capital inflows.

Verma and Prakash (2011), opine that interest rate is not significant, neither for Foreign Institutional Investment nor for Foreign Direct Investment flows to India and Waqas et al. (2015) pointed the significance of interest rate on foreign portfolios flows to South Asian countries except china. To investigate further, this study will examine the impact of interest rate differentials on foreign investment to Pakistan.

Risk associated with currency effects the foreign investment, as it increases the insecurity in the returns. Currency volatility has inverse relation as observed by Persson and Svensson (1989). Garg and Dua (2014) highlighted negative effect of currency risk on foreign portfolio flows as a result of uncertainty in returns. Variability in currency importantly determines the foreign investment and at this stage it is important to examine the effect of exchange rate variations on the foreign capital flows to Pakistan.

Liquidity affects the equity prices in any country and which alternatively have impact on foreign investment. Garg and Dua (2014) find that country risk or liquidity is not significant in case of India, which they believe is due to investor confidence in economy. Further examining the impact of country's liquidity, this study will consider the effect of foreign reserves on foreign investment in Pakistan.

Kaur and Dhillon (2010) opine that the variability in returns of host country stock market over home country has significant negative influence on FII flows to India. Waqas et al. (2015) using GARCH concluded that in case of Pakistan stock market variability has positive impact on foreign portfolio investment. These differences of opinion compel us to further test the significant effect of variations in stock market on foreign investment in Pakistan.

To examine the effect of trade policy of country on foreign investment, Kaur and Dhillon (2010) find positive and significant impact of liberalization on FII investment in India and Chukwuemeka et al. (2012) also find it significant in case of Nigeria but Chaudhry et al. (2014) find insignificant impact of trade openness on net portfolio investment in Pakistan. Differences of opinion generate doubts and curiosity to further investigate the relative importance of trade openness on foreign investment.

Inflation rate is statistically significant in determining the foreign portfolio investment in six Asian developing countries, articulated by Agarwal (1997). On the other hand, Kaur and Dhillon (2010) find positive and significant impact of inflation rate of foreign (home) country on foreign institutional investment in India, but a negative and significant influence of inflation rate of host country (India) on FII in India, whereas Waqas et al. (2015) find it insignificant for FPI volatility in Pakistan. Further investigating the impact of consumer price index as proxy of inflation rate will provide empirical evidences for policy maker while considering the inflation rate as determinant of foreign investment in Pakistan.

Economic activities usually reflected by Industrial Production Index of that country and signal a rapid growth and expansion in future will increase the demand of investment. Several studies are in line with above statement; include Garg and Dua (2014) find positive and significant impact of domestic output growth for FPI and FII, Kaur and Dhillon (2010) also find positive and significant impact of economic growth on FII inflows to India in both short and long run. On the other hand, Waqas et al. (2015) opine that Industrial production growth inserts significant effect on FPI volatility but GDP growth rate is less attractive for foreign portfolio investments to Pakistan. Further investigating the impact of industrial production index will clear effect of growth rate on overall foreign investment to Pakistan.

Studies on firm-level determinants of foreign investment are very less in number, but provide ground for further look into the subject matter.

Size of the firm sometimes attract the investors and can be a determinant of local and foreign investment. Bradshaw et al. (2004) and Aggarwal et al. (2005) are of the view

that firm size (visibility) is among crucial determinants of US fund's investment decisions. It will be hypothesized that, large sized firms attract more foreign investment in Pakistan.

Stock returns are important factor for investors at the time of investment decision making. Aggarwal et al. (2005) find it significant firm-level factor for allocation of US-mutual fund investors in emerging economies. This paper will investigate the significance of stock returns to the foreign investment in firms in Pakistan.

Dahlquist and Robertsson (2001) find negative relation between foreign ownership and leverage ratios for Swedish firms, Aggarwal et al. (2005) also agreed with them and concluded that US mutual firms also prefer firms with lower leverage. In this case, the study checks that, to what extent foreign investors accept leverage during investment decisions. By investigating the subject matter for firms in Pakistan, this paper tests whether foreign investors invest more in firms with high leverage or not.

During the literature review, it is been observed that GDRs/ADRs were not so commonly considered. Lang et al. (2002) examined that firms with ADRs enjoy increased valuation and lower cost of capital in US capital market. Further Aggarwal et al. (2005) finds it significant generally for sample of 32 emerging economies for US mutual funds. This paper has examined that, firms with listed or non-listed GDRs/ADRs attract more for foreign investors in Pakistan.

Bohn and Tesar (1996) pointed out that US investors only chases returns but not expected returns as proxies the dividend yield, but Bekaert et al. (2002) and Edison and Warnock (2003) don't agree and empirically evidenced that investors chase perspective returns. This can be tested for selected samples whether dividend yield effects foreign investment positively or not.

Klapper and Love (2004) opine that, if the country level governance conditions are substandard then firm-level corporate governance matters more for the investors. For related Pakistani market Javed and Iqbal (2010) articulated significantly positive relationship between corporate governance and the firm performance. It is hypothesized

that, factors of corporate governance positively affect the foreign investment in firms of Pakistan.

2.1 Theoretical Background:

Considering investment options is the priority of investors worldwide. Attracting investment is mainly related to understanding the requirements of investors and there are different theories on the international investment.

Investor decisions are normally moves around the risk and return. According to Markowitz portfolio theory, investors evaluate the risk on variability bases of expected returns. Further, the theory assumes that, investors prefer higher returns against lower level of risk and lower level of risk for the same level of returns. In continuation of above theory, Krugman (1979) argue that, investing internationally can reduce the risk of domestic portfolio which is not possible by industrial diversification of risk. International level operations or investment helps in risk-diversification which leads to the expectation of increased returns on investment.

Following the leader theory, Knickerbocker (1979) argues that, rival firms follow each other in international market instead of destructive competition and by doing so, they protect their commercial interests. The fear of losing a particular market served by exports, due to entrance of competitor compels them to invest in that market not only for the sake of competition, but also diversify the risk.

Variations in the exchange rates are example of imperfect foreign exchange market and which, Aliber (1964) believes, leads to invest in the international market. Structural imperfect markets of foreign exchanges allow investors to buy or sell in an overvalued or undervalued currency in order to gain returns.

Concept of Cross-Investment is presented by Graham (1975), noting the trends of cross investment between countries. This can be reasoned as defensive measures by one firm against the firm in their home country to counter the strategies by subsidiaries.

2.2 Theoretical Framework:

Figure 2.1 Country Level Determinants of Foreign Portfolio Investment in Pakistan:

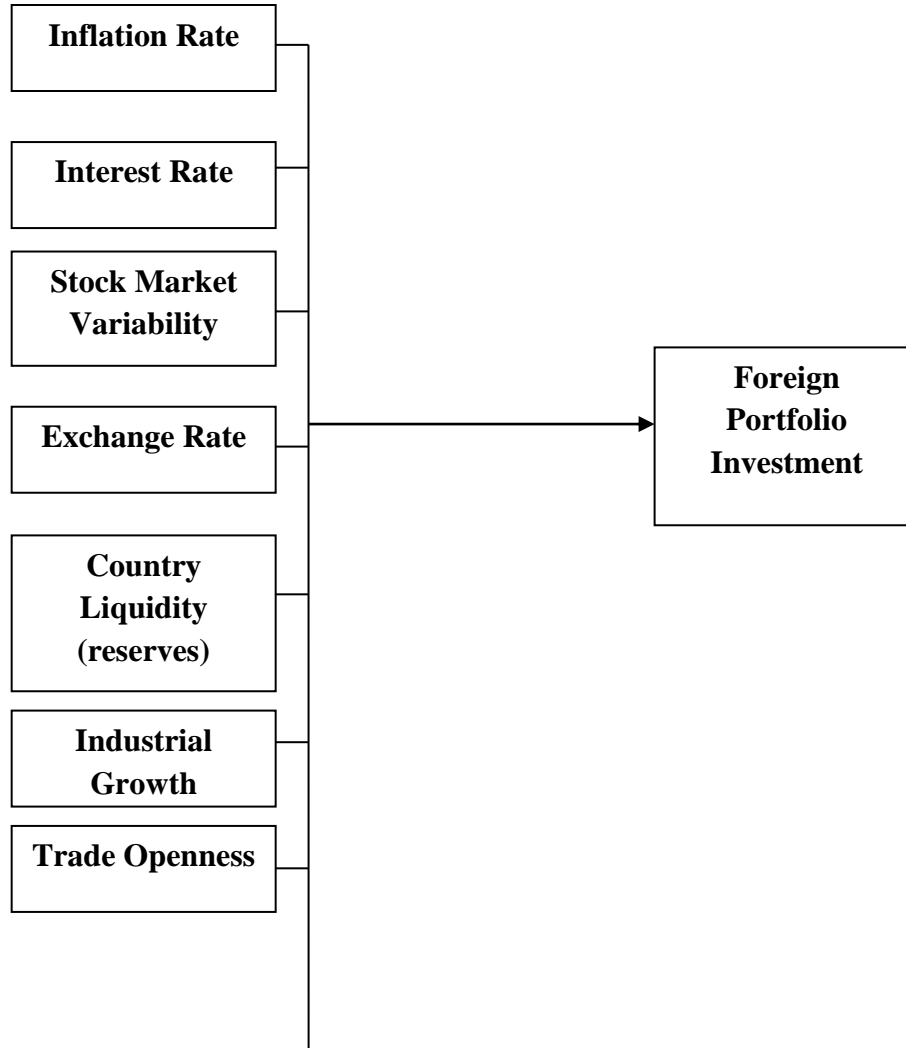
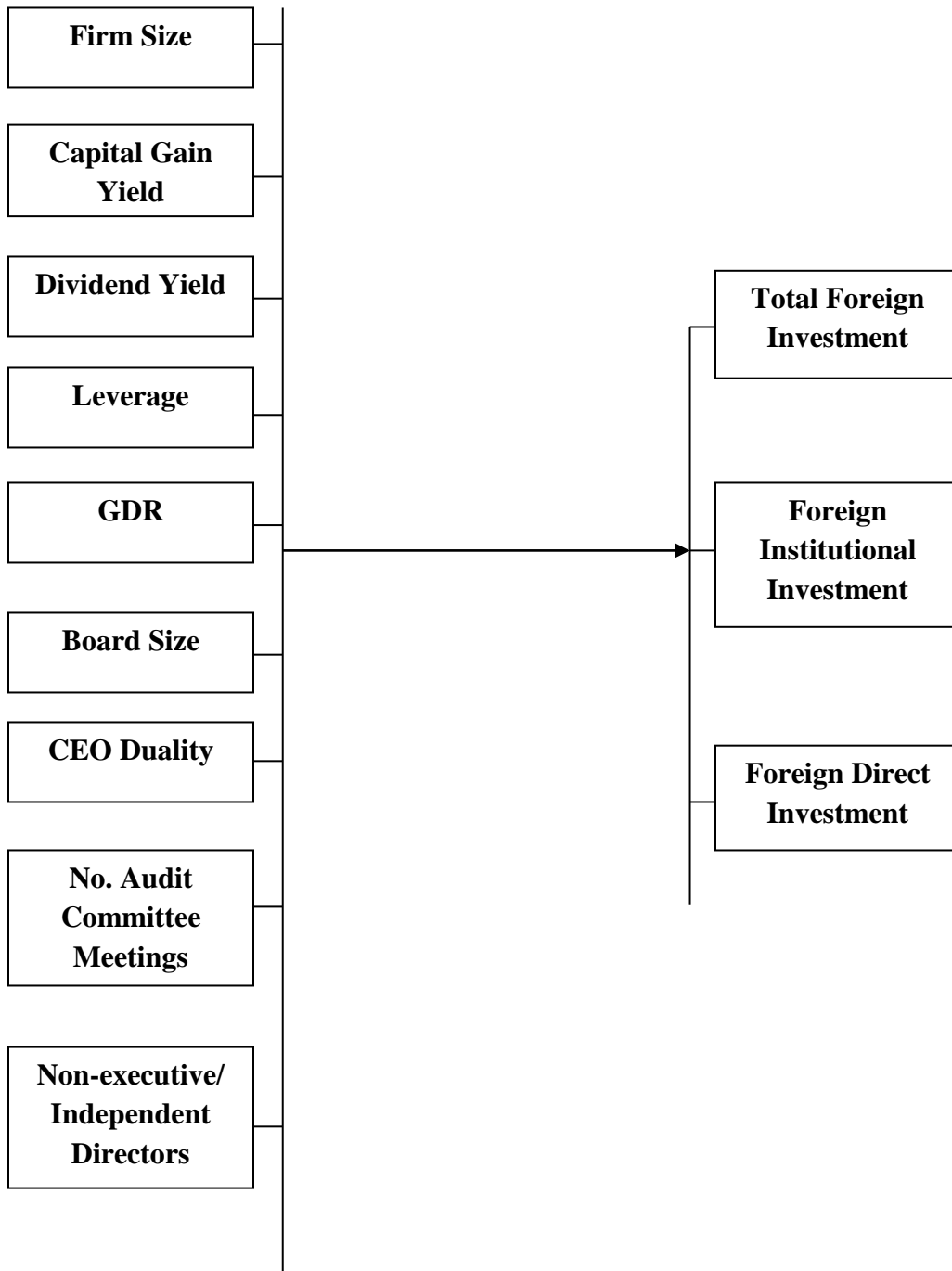


Figure 2.2 Firm Level Determinants of Foreign Investment in Pakistan:



2.2 Hypotheses

- It is hypothesized that, foreign investment to Pakistan increases due to macroeconomic or country-level determinants.

H_0 : Country level determinants have no significant impact on foreign portfolio inflows.

H₁: Country level determinants have significant impact on foreign portfolio inflows.

- It is also hypothesized that, foreign investment to Pakistan increases due to firm-level determinants.

H₀₂: Firm level determinants have no significant impact on foreign investment inflows.

H₂: Firm level determinants have significant impact on foreign investment inflows.

H₀₃: Firm level determinants have no significant impact on foreign institutional investment inflows.

H₀₃: Firm level determinants have no significant impact on foreign institutional investment inflows.

H₃: Firm level determinants have significant impact on foreign institutional investment inflows.

H₀₄: Firm level determinants have no significant impact on foreign direct investment inflows.

H₄: Firm level determinants have significant impact on foreign direct investment inflows.

CHAPTER 3:

Data and Methodology:

3.1 Country Level Determinants of Foreign Portfolio Investment in Pakistan:

Foreign Portfolio Investment (FPI) is the type of investment inflows made by non-residents of a country. FPI allows the investor to invest in stocks, bonds or any other financial assets in a country other than the country of his/her citizenship. Foreign Portfolio Investment is considered to be less risky and more liquid depending upon the market volatility.

Monthly time series data is used for macro-economic determinants of foreign portfolio inflows in Pakistan for the period 2005-2015. Data is collected from International Financial Statistics (IFS), State Bank of Pakistan (SBP) annual reports and Pakistan Bureau of Statistics. Variables included are foreign portfolio investment as dependent variable which depends on interest rate, exchange rate, inflation rate, foreign reserves for liquidity, stock market variability, industrial growth and trade openness in Pakistan.

Based upon the macroeconomic factors discussed previously, first part of this study estimate the macro-econometric model to scrutinize the determinants of foreign investment in Pakistan with the help of following empirical model:

$$FPI_t = \beta_0 + \beta_1 DINT_t + \beta_2 XR_t + \beta_3 RESERVE_t + \beta_4 PSE_t + \beta_5 DTO_t + \beta_6 DINF_t + \beta_7 IPI_t + \varepsilon_t \dots (1)$$

Where:

1. Interest rate: INT and DINT is interest rate at first difference- Treasury bill rates are used as proxy of interest rate. It is hypothesized that increase in interest rate discourages foreign investment, due to its impact on discount rate.
2. Exchange rate: XR- Exchange rate of US dollar against Pak Rupee on the basis of month end value. It is hypothesized that, depreciation of currency in Pakistan negatively affect the foreign investment flows.

3. Country Liquidity: RESERVE- Employ foreign reserves as proxy for Country liquidity. It is hypothesized that, increase in country's liquidity positively affects foreign investment.
4. Stock Market Variability: PSE- Considering monthly average of Karachi Stock Exchange Index as proxy of stock market Variability. It is hypothesized that decreased variations on the stock market returns encourage foreign investors to invest.
5. Trade Openness: TO and DTO is trade openness at first difference- Country's imports plus exports against GDP is used as proxy of Trade Openness. It is hypothesized that, foreign investment increases for economies with open trade environment.
6. Inflation Rate: INF and DINF is inflation rate at first difference- Consumer price index is used as proxy for inflation rate. It will be hypothesized that, increase in inflation rate discourages foreign investment in Pakistan.
7. Growth Rate: IPI: Industrial Production Index (IPI) is used as proxy of economic growth in Pakistan. It is hypothesized that, increase in growth rate also increases foreign investment in Pakistan.

Time series data often faces stationary problem at level and results usually estimate unauthentic results. So, this study requires checking the stationary of time series data as first step in the analysis. In this regard we used Augmented Dickey Fuller (ADF) test for unit roots to test the stationarity of data. All the variables are stationary at level except inflation rate, interest rate and trade openness are stationary at first difference (Table 1 in the annexure).

3.1.1 Estimation Techniques:

Inflation rate, interest rate and trade openness are not stationary at level but stationary at first difference, consequently, the study generated values at first difference. Descriptive statistics and correlations are calculated by using EVIEWS-9. Probability values are used to find the significance of correlation coefficient at 1% and 5%.

Further, Ordinary least square (OLS) model is used to estimate the regression among foreign portfolio investment and independent variables in Pakistan. Least square regression model uses the sum of squared error, which makes it accurate and popular for regression estimates.

3.2 Firm-level determinants of foreign investment in Pakistan:

Firm-level annual data is used for finding the determinants of foreign investment in listed firms in Pakistan. 100 nonfinancial firms listed on Pakistan Stock Exchange are selected on market capitalization bases for the period of 2005-2015. Firm level data is collected from the annual report of particular firm and stock prices were taken from Pakistan Stock Exchange website. The study divided firm level foreign investment into two categories according to the definition based on the control of investors. The Organization of Economic Cooperation and Development (OECD) defines investor control as owing 10% or more of the business, is categorized as Foreign Direct Investment (FDI). Any non-resident individual or fund make less than 10% investment in any firm listed in Pakistan is categorized as Foreign Institutional Investment (FII). This study also uses the sum of FDI and FII to find the effect of firm level policies on Total Foreign Investment (FI).

To measure the percentage of shares held by foreign investors, this study has analyzed above mentioned factors as determinants of firm level foreign investment in Pakistan, on the bases of following empirical models:

Regression model for checking the impact of firm level determinants on total foreign investment:

$$FI_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 CGY_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDR_{i,t} + \beta_5 DY_{i,t} + \beta_6 BS_{i,t} + \beta_7 CEO_{i,t} + \beta_8 NACM_{i,t} + \beta_9 NED_{i,t} + \varepsilon_{i,t} \dots (2)$$

Regression model for checking the impact of firm level determinants on foreign institutional investment:

$$FII_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 CGY_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDR_{i,t} + \beta_5 DY_{i,t} + \beta_6 BS_{i,t} + \beta_7 CEO_{i,t} + \beta_8 NACM_{i,t} + \beta_9 NED_{i,t} + \varepsilon_{i,t} \dots (3)$$

Regression model for checking the impact of firm level determinants on foreign direct investment:

$$FDI_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 CGY_{i,t} + \beta_3 LEV_{i,t} + \beta_4 GDR_{i,t} + \beta_5 DY_{i,t} + \beta_6 BS_{i,t} + \beta_7 CEO_{i,t} + \beta_8 NACM_{i,t} + \beta_9 NED_{i,t} + \varepsilon_{i,t} \dots (4)$$

Where:

1. Firm Size: SIZE-Natural log of the total Assets of the firm is used as proxy of firm size. Scale of the production and economies of scale are traced by the firm's total assets and considered to be asset backed securities. It is hypothesized that, foreign investors choose to invest in larger firms.
2. Capital gains Yield: CGY- Appreciation in year-end price against initial price of the stock is used as proxy for return on stock. It is hypothesized that, foreign investors are more interested in firms with increasing return on stock.
3. Financial leverage: LEV- Debt to equity ratio is used as proxy for financial leverage. Firms with high leverage ratio are considered to be exposed to financial risk. It is hypothesized that, foreign investors prefer firms with low leverage ratio.
4. Global Depository Receipts/ADRs: GDR- Issuance of listed or non-listed depository receipts is used as proxy of GDRs/ADRs. It is hypothesized that, foreign investors invest more in firms issue depository receipts.
5. Dividend Yield: DY- Annual cash dividend per share against share price of particular firm is used as proxy for dividend yield. It is hypothesized that, foreign investors prefer positive dividend yield.
6. Corporate Governance: CG- Following factors are considered for measuring the level of corporate governance in an organization. Board Size (BS), CEO Duality, Non-executive/Independent Executives (NED), and No. of Audit committee meetings (NACM).

3.2.1 Estimation Techniques:

Descriptive statistics of firm level data are analyzed at initial level. Common sample descriptive analysis is calculated by using EVIEWS-9. Correlation between variables is also evaluated and the significance of correlation coefficient is measured at 1% and 5%.

Further, three estimation models are applied on data. First of all Common Effect Model (CEM) or pooled OLS regression model is applied to see the overall effect.

Secondly, this study applies Fixed Effect Model (FEM) by allowing each cross-section to use its own intercept over time. Thirdly, the study uses Random Effect Model (REM) by assuming that the intercept values are random drawing from a bigger population of firms in Pakistan.

On the bases of Hausman test, as suggested by Hausman (1978), the study checks the credibility of random effect model and in case of rejection of null hypothesis the study used fixed effect model for interpretation of data.

CHAPTER 4

Data Analysis and Discussion

This section shows the descriptive statistic and correlation among the variables followed by the discussion on empirical results by different models by using the country level data and for firm level data of 100 listed non-financial firms for 2005-2015.

4.1 Results and Discussion: Country Level determinants

This section provides empirical results and analyses of country level determinants of foreign portfolio investment inflow in Pakistan. First of all the stationarity of data is tested by applying Augmented Dickey-Fuller (ADF), resultant table is enclosed in annexure. All the variables are stationary at level except inflation rate, interest rate and trade openness. Inflation rate, interest rate and trade openness are not found stationary at level but stationary at first difference. So DINF, DINT and DTO represent the values calculated at first difference.

4.1.1 Descriptive Statistics:

Table 4.1: Descriptive Statistics of Country Level factors

Variable	Obsrv	Mean	Std. Dev.	Min.	Max.
FPI	131	0.008	0.028	-0.059	0.180
DINF	131	-0.000	0.012	-0.028	0.031
DINT	131	-0.000	0.004	-0.020	0.015
PSE	131	0.017	0.073	-0.361	0.219
Reserve	131	0.011	0.030	-0.072	0.096
XR	131	0.004	0.013	-0.048	0.064
IPI	131	0.005	0.064	-0.130	0.239
DTO	131	0.000	0.005	-0.013	0.014

Table 4.1 is showing the results of descriptive statistics for country level variables. The table is generated by using statistical software and reflects the mean, standard deviation,

minimum and maximum values of country level factors which affect the inflow of foreign portfolio investment.

Foreign portfolio investment increases at an average rate of 0.008 and variation in the FPI inflows to Pakistan is 0.028. This represents that, there is a little variation in foreign portfolio inflows. Average inflation rate in Pakistan is near to zero with low variations over the period i.e. -0.000 and 0.012 respectively.

Average interest rate in Pakistan is -0.000 with low variation of 0.004 during the period. Average variation in stock market index is 0.017 with low variation of 0.073. It shows low dispersion from the mean. Foreign reserves of Pakistan are increasing at an average rate of 0.011 and the variation in foreign reserves is 0.030. It reflects minimum variation in foreign reserves of Pakistan.

Exchange rate is depreciating at an average rate of 0.004 and dispersion from mean is 0.013. This shows low variation in the exchange rate during the period. Industrial growth is also showing an increasing trend on average and lower dispersion from mean with a mean value of 0.005 and standard deviation of 0.064. Finally, mean of trade openness at first difference is 0.000 showing no difference in trade openness on average. Variation of 0.005 is showing that the values are not very dispersed from the mean of trade openness.

4.1.2 Correlation Analysis

This section shows the correlation between variables and discusses the significance of correlation coefficient.

Table 4.2: Correlation between Country Level Variables

Correlation	FPI	DINF	DINT	PSE	RESERVE	XR	IPI	DTO
FPI	1.000							
DINF	-0.016	1.000						
DINT	0.007	0.251**	1.000					
PSE	0.287**	-0.065	-0.114	1.000				
RESERVE	0.205*	-0.010	-0.006	0.025	1.000			
XR	-0.173*	0.201*	0.191*	-0.233**	-0.059	1.000		
IPI	-0.151	-0.072	-0.069	0.008	-0.073	0.018	1.000	
DTO	-0.027	0.027	0.060	0.006	-0.226**	0.132	0.361**	1.000

**Correlation is significant at the level of 0.01 level (2-tailed)

*Correlation is significant at the level of 0.05 level (2-tailed)

Table 4.2 shows the correlation between the variables. The study observes that foreign portfolio investment is negatively correlated with inflation, showing inverse but insignificant relationship. Increase in inflation shows insignificant decrease in FPI inflows in Pakistan and vice versa. On the other side, FPI increases with an increase in interest rate but the relationship is insignificant. Foreign portfolio inflows are directly and significantly proportionate with stock market variations. Foreign reserves are also directly and significantly correlated with foreign portfolio investment inflows. The study further observes negatively significant relationship between FPI and exchange rate. It shows a decrease in foreign portfolio investment if exchange rate increases and vice versa. Moreover, there is inverse but insignificant relationship of FPI with industrial

growth and trade openness in Pakistan. Showing increase in FPI against a decrease in industrial growth and trade openness and vice versa.

This study notices a positive and significant correlation between inflation and interest. Showing an increase in interest rate, if there is an increase in inflation rate. Inflation rate is negatively and insignificantly correlated with foreign reserves, stock market variations and industrial growth in Pakistan. Whereas, inflation rate increases against any increase in exchange rate. Likewise, there is also a direct and insignificant relationship between inflation rate and trade openness.

Interest rate is inversely and insignificantly related with foreign reserves, industrial growth and stock market variations. Interest rate increases against an increase in trade openness and exchange rate, but there is significant increase in case of later.

Stock market variation is directly proportionate to foreign reserves, industrial growth and trade openness in Pakistan. Whereas, stock market variation significantly increases if there is any decrease in exchange rate of Pakistan.

Similarly, foreign reserves of Pakistan increases against any decrease in exchange rate, industrial growth and trade openness. The study further, observe insignificant increase in industrial growth and trade openness if there is an increase in exchange rate. Lastly, industrial growth significantly increases against an increase in trade openness in Pakistan.

4.1.3 Results of Regression Analysis of country level variables:

Following section shows the results and dicussion of regression analysis for the country level variables.

Table 4.3: Impact of Macroeconomic Variables on FPI

Dependent Variable: FPI

Method: Least Squares

Variable	Coefficient	t-Statistic	Prob.
C	0.006**	2.248	0.026
DINF	0.002	0.011	0.992
DINT	0.326	0.501	0.618
PSE	0.098***	3.043	0.003
RESERVE	0.182**	2.359	0.020
XR	-0.256	-1.336	0.184
IPI	-0.071*	-1.850	0.067
DTO	0.514	0.976	0.331
R ²	0.159	F-statistic	3.316
Adjusted R ²	0.111	P(F-statistic)	0.003
S.E. of regr	0.026	Durbin-Watson stat	1.906
Sum squared resid	0.083	No. of Observations	131

Note: Author himself calculated. *, **, *** indicate significance at 10%, 5%, and 1% level of significance, respectively.

Table 4.3 represents the impact of country level variables on the Foreign Portfolio Investment in Pakistan. The study estimates the relationship by using Ordinary Least Square (OLS) method, which shows that there is a positive but statistically insignificant impact of inflation and interest rate on foreign portfolio investment in Pakistan.

Variability of Pakistan Stock Exchange has positive and statistically significant impact on inflows of foreign portfolio investments in Pakistan. Liquidity of country is measured by foreign reserves and it appears to have positive and statistically significant impact on foreign portfolio investment in Pakistan. Foreign exchange rate has negative and trade openness has positive impact but both are statistically insignificant. Growth is measured by industrial production index and it has surprisingly negative and statistically significant impact on inflows of foreign portfolio investment in Pakistan.

4.2 Results and Discussion: Firm Level determinants

This section provides empirical results and analyses of firm level factors which play important role in attracting the inflow of foreign investment.

4.2.1 Descriptive Statistics

Descriptive statistics are tabulated in Table 4.4 which exhibits the mean, median, standard deviation, minimum (Min.) and maximum (Max.) values of 100 listed non-financial companies.

Table 4.4: Descriptive Statistics Firm Level Variables:

Variable	Obs	Mean	Std. Dev	Min.	Max.
FI	1099	18.850	27.689	0	97.653
FII	1099	2.723	6.326	0	46.738
FDI	1099	16.127	27.532	0	97.653
Size	1099	9.172	1.410	5.536	13.225
CGY	1099	0.219	0.673	0.972	6.129
DY	1099	0.040	0.043	0	0.326
LEV	1099	1.691	3.663	31.493	58.266
GDR	1099	0.024	0.155	0	1
BS	1099	8.629	1.938	5	16
CEO	1099	0.828	0.377	0	1
NACM	1099	4.576	1.071	2	13
NED	1099	6.397	2.334	1	14

Mean is the measure of central tendency while standard deviation is the deviation from the mean. Data which are close to the mean show small standard deviation while high standard deviation indicates that data are out of ranges. Average total foreign investment at firm level is 18.850 and the variation is 27.689. The high variation value is due to foreign direct investment.

On average foreign institutional investors invest in 2.723 percent shares of non-financial companies listed in Pakistan stock exchange annually and the dispersion from mean is

6.326 percent annually. Similarly, foreign direct investment is 16.127 percent on average and the dispersion from mean is 27.532 percent annually.

The average size of non-financial companies listed in Pakistan is 9.172 and the variation in sizes is 1.410, showing not much variation in the sizes of companies. Similarly, average increase in capital gains is 0.219 and the variation in the mean capital gains is 0.673, showing less variation in capital gains. On the other hand, average dividend yield is 0.040 and the dispersion from mean is 0.043, showing little variation in cash dividends against closing price of shares. Furthermore, usage of debt in financing the total assets of the company is 1.691 on average and the variation in financial leverage is 3.663, showing high variations in combination of debt and equity.

Companies in the sample issue global deposit receipts at an average rate of 0.024 with a small variation of 0.155. Likewise, average board size is 8.629 directors with a small variation of 1.938, showing that most of the firms are operating accordance with Corporate Governance Code (2002). Chairman and CEO of the companies are different in most of the companies therefore, the mean is 0.828 and there is little variation of 0.377. Similarly, average number of audit committee meetings is 4.576 and the variation is 1.071, showing compliance with Corporate Governance Code. Moreover, non-executive/ independent director has a mean value of 6.397 and standard deviation is 2.334, showing most of the directors are non-executive/independent in board of directors.

4.2.2 Correlation Analysis

This section shows the correlation between variables to see the linear relationship. Table 4.5 is showing the results of correlation among variables and the significance of correlation coefficient.

Table 4.5: Correlation of Firm Level Variables

**Correlation is significant at the level of 0.01 level (2-tailed)

Correlation	FI	FII	FDI	SIZE	CGY	DY	LEV	GDR	BS	CEO	NACM	NED
FI	1.000											
FII	0.139**	1.000										
FDI	0.974**	-0.090**	1.000									
SIZE	-0.028	0.203**	-0.075**	1.000								
CGY	0.022	0.006	0.021	-0.050	1.000							
DY	0.071*	0.040	0.063*	0.078**	-0.019	1.000						
LEV	0.009	-0.060*	0.022	0.138**	-0.048	-0.089**	1.000					
GDR	-0.040	0.228**	-0.093**	0.275**	-0.011	0.148**	-0.020	1.000				
BS	-0.008	-0.036	0.000	0.299**	-0.013	0.172**	0.210**	0.273**	1.000			
CEO	-0.017	0.048	-0.029	-0.001	0.077*	0.102**	0.031	0.057*	0.202**	1.000		
NACM	-0.108**	0.081**	-0.128**	0.005	-0.036	-0.044	0.017	-0.003	0.063*	-0.129**	1.000	
NED	-0.163**	0.002	-0.165**	0.359**	-0.022	0.157**	0.195**	0.288**	0.791**	0.264**	0.111**	1.000

*Correlation is significant at the level of 0.05 level (2-tailed)

Correlation between the variables is shown in Table 4.5. Foreign investment is the total of foreign institutional and direct investment, therefore, there is a positive and significant correlation. Whereas, size of the firm, issuance of GDR, board size and CEO duality are inversely but insignificantly proportional to total foreign investment, showing a decrease in FI against increase in these variables. Foreign investment increases insignificantly due to increase in capital gains yield and dividend yield but significantly in case of increase in dividend yield and the correlation is weak among these variables. Similarly, audit committee meetings and number of non-executive/independent directors inversely effect total foreign investment.

Foreign institutional investment increases against a decrease in foreign direct investment in sample companies in Pakistan but the correlation is weak and significant. The study further observed that FII is positively and significantly correlated with firm size, issuance of GDR and number of audit committee meetings, showing an increase in FII due to increase in these variables. FII is directly and insignificantly proportional to capital gains

yield, dividend yield, duality of CEO and chairman and presence of non-executive/independent directors in the board but there is weak correlation between FII and these variables. Likewise, FII is negatively and significantly correlated with financial leverage, i.e. FII increases against a decrease in leverage and vice versa.

Foreign direct investment increases significantly against a decrease in firm size, issuance of GDR, number of audit committee meetings and number non-executive/independent directors in board but there exist a weak relationship. Similarly, there is weak, positive and insignificant correlation of FDI with capital gains yield, leverage and board size. Likewise, foreign direct investment increases significantly if there is an increase in cash dividend against share price of a listed company.

Size of the firm is inversely and insignificantly correlates with capital gains yield and CEO duality, meaning that capital gains yield increases if firm size decreases and vice versa. Similarly, dividend yield, leverage, issuance of GDR, board size and number of non-executive/independent director increases significantly with an increase in size of firm but the correlation is weak. Likewise, there is insignificant increase in number of audit committee meetings against an increase in firm size.

Capital gains yield decreases with an increase in dividend yield, issuance of GDR, board size, number of audit committee meetings and number of non-executive/independent directors but there exist a weak and insignificant correlation. Furthermore, capital gains yield is weak, positively and significantly correlated with CEO duality, meaning that, capital gains yield increase if CEO is different from chairman of the board of directors and vice versa.

Dividend yield increases with a decrease in number of audit committee meeting and leverage, but significantly in case of later. Similarly, dividend yield increases significantly with an increase of issuance of GDR, board size, duality of CEO and number of non-executive/independent directors but there exists a weak correlation.

Leverage decreases insignificantly with an increased issuance of GDR, meaning companies raise more capital from international markets by issuing GDRs. Similarly, leverage is weak, positively and significantly correlated with board size and number of

non-executive/independent directors, meaning that use of debt increases with an increase in board size and non-executive/independent directors in board. Likewise, CEO duality and number of audit committee meetings are weakly and insignificantly correlated with leverage.

Issuance of global depositary receipts increases significantly with an increase of board size, CEO duality and number of non-executive/independent directors in board but there is a weak correlation. Likewise, when the number of audit committee meetings increase than issuance of GDR decrease insignificantly.

Board size is positively and significantly correlated with CEO duality, number of audit committee meetings and presence of non-executive/independent directors in board. The study observed strongly positive correlation between board size and number non-executive/independent directors, because board of directors is combination of executive and non-executive directors. Similarly, CEO duality negatively and significantly correlated with number of audit committee meetings but positively and significantly correlated with number non-executive/independent directors in board. Finally, number of audit committee meetings is positively and significantly correlated with number non-executive/independent directors in board.

4.2.3 Results of Regression Analysis of Total Foreign Investment at Firm Level

This section of the study is showing the results when total foreign investment model is estimated with common effect model, fixed effect model and random effect model.

Table 4.6 shows the impact of firm level variables on total foreign investment. Common effect model (CEM) suggests that, firm size is positive but statistically insignificant. This suggests that, firm size doesn't matters when considering overall foreign investment in Pakistan. Similarly capital gains yield (CGY), leverage and CEO duality of the firm appears positive but insignificant statistically, meaning that foreign investors as whole do not consider stock returns, use of debt in financing total assets and duality of CEO, as per the findings of common effect model.

Table No. 4.6 Results of Total Foreign Investment model with firm level variables

Variables	Model I	Model II	Model III
	CEM	FEM	REM
C	13.638* (1.794)	0.504 (0.070)	3.636 (0.503)
SIZE	0.564 (0.895)	1.281** (1.975)	1.093* (1.773)
CGY	0.730 (0.607)	-0.625 (-1.340)	-0.574 (-1.234)
LEV	0.242 (1.059)	0.302*** (2.825)	0.302*** (2.843)
DY	54.910*** (2.832)	19.407* (1.925)	20.017** (1.999)
GDR	-4.031 (-0.721)	20.350*** (4.165)	17.937*** (3.796)
BS	4.344*** (6.335)	0.628 (1.148)	0.669 (1.266)
CEO	0.960 (0.424)	-1.349 (-0.850)	-1.152 (-0.741)
NACM	-1.942** (-2.525)	0.623 (1.549)	0.525 (1.317)
NED	-5.005*** (-8.418)	-0.344 (-0.875)	-0.575 (-1.487)
Observations	1099	1099	1099
R²	0.081	0.885	0.032
S.E. of regression	26.649	9.874	9.913
Sum squared resid	773373.1	96522.65	107004.7
F-statistic	10.706	70.779	4.022
Prob(F-statistic)	0.000	0.000	0.000
Hausman Test		17.529	
P-Value		0.0410	

Source: Author's own calculations. *, **, *** indicate significance at 10%, 5%, and 1% level of significance, respectively. Values in parenthesis are the t-values.

Common effect model is further, showing positive and significant impact of dividend yield and board size on overall foreign investment flows in Pakistan. This suggests that, foreign investors prefer those companies which are paying more dividends. Likewise, common effect model also suggests that, audit committee meetings and number of non-executive/independent directors in board have negative and significant impact on total foreign investment. This may be because major portion of total foreign investment is from direct investors and they doesn't prefer minority representation and frequent audit committee meetings.

Hausman test supports fixed effect model and suggests that, it best fits the data for total foreign investment. Both fixed and random effect models suggest that, firm size positively and significantly affects the overall foreign investment in Pakistan. This may be because foreign institutional investors like to invest more in larger firms and this is in line with findings of Aggarwal et al. (2005). Similarly, leverage and GDR are positively and significantly affects the total foreign investment inflows at firm level in Pakistan. This suggests that, foreign institutional investors prefer to invest in those companies which offer GDR and on the other hand direct investors prefer to invest in more leveraged firms focusing on long term growth. As in case of leverage monetary cost is shared with financial institutions, so increase in leverage leads to attract foreign investment.

4.2.4 Findings of Regression Analysis of Foreign Institutional Investment at Firm Level

This section of the study is showing the results when foreign institutional investment model is estimated with common effect model, fixed effect model and random effect model.

Table No. 4.7 Evidence on Foreign Institutional Investment flows at firm level

Variables	Model I	Model II	Model III
	CEM	FEM	REM
C	-5.731*** (-3.357)	-16.740*** (-7.899)	-12.937*** (-6.520)
SIZE	0.943*** (6.672)	1.677*** (8.745)	1.451*** (8.292)
CGY	0.094 (0.349)	0.121 (0.875)	0.129 (0.935)
LEV	-0.084 (-1.640)	-0.034 (-1.083)	-0.038 (-1.206)
DY	2.130 (0.489)	6.061** (2.033)	5.541* (1.884)
GDR	8.792*** (7.000)	19.291*** (13.349)	17.408*** (12.814)
BS	-0.398*** (-2.585)	0.255 (1.577)	0.061 (0.401)
CEO	1.538*** (3.026)	0.418 (0.891)	0.581 (1.285)
NACM	0.646*** (3.740)	0.190 (1.600)	0.214* (1.823)
NED	-0.183 (-1.371)	-0.004 (-0.033)	-0.039 (-0.347)
Observations	1099	1099	1099
R²	0.113	0.808	0.207
S.E. of regression	5.983	2.921	2.950
Sum squared resid	38985.99	8444.317	9473.91
F-statistic	15.387	38.536	31.503
Prob(F-statistic)	0.000	0.000	0.000
Hausman Test		30.783	
P-Value		0.0003	

Source: Author's own calculations. *, **, *** indicate significance at 10%, 5%, and 1% level of significance, respectively. Values in parenthesis are the t-values.

Table 4.7 is showing the impact of firm level variables on foreign institutional investment inflows in Pakistan. All three models significantly suggest that, foreign institutional investors invest more in large firms. This is due to the reason that, larger firms are considered to be stable in their operations and there may be less chance of insolvency.

Similarly, all three models also significantly suggest that, foreign institutional investors prefer to in firms issuing global depository receipts. Firms are required to practice International Financial Reporting Standards (IFRS) or US-GAAP standards and having transparent operations, for issuing GDRs, help in building investor confidence. Secondly, GDR allows foreign investors to in their own currency to avoid exchange rate risk. These results are in line with Aggarwal et. al. (2005).

Likewise, all three models suggest negative and insignificant impact of financial leverage in foreign institutional investors. Firms with use of more debt are supposed to share monetary cost with financial institutions therefore; foreign institutional investors invest more in firms with lower leverage and share more with shareholders. Furthermore, all three models propose positive impact of dividend yield on institutional inflows but only insignificant in Common Effect Model (CEM). Empirical results suggest that, foreign institutional investors are more risk averse and follow bird-in-hand theory.

Similarly, the study suggests that, capital gains yield has a positive and insignificant impact on foreign institutional investment inflows in companies listed in Pakistan. Foreign institutional investors prefer cash earnings therefore; there is insignificant effect impact of stock returns. All three models further suggest that, duality of CEO has a positive impact on foreign institutional investment at firm level in Pakistan, but impact is only significant in common effect model. This confirms that firms pay more dividends, where, Chairmen of the board of directors is different from the Chief executive officer and this attracts foreign institutional investors.

The study also suggests that, audit committee meetings during a year also positively affect the foreign institutional inflows significantly in results of Common and Fixed effect models and insignificant in Random effect model. Further suggests that increased number of non-executive directors also inversely affect the foreign inflows from

institutional investors. Findings confirm that foreign institutional investors are more attracted towards transparent corporate governance in firms.

Finally, Common effect model suggests that size of the board of directors negatively and significantly affect the inflows by institutional investors but Random and Fixed effect model show positive and insignificant results. Findings suggest that foreign institutional investors prefer board sizes according to the Corporate Governance Code and prefer reasonable board size to fulfil the minimum requirements. These findings are in line with Klapper and Love (2004) and Javed and Iqbal (2010).

4.2.5 Findings of Regression Analysis of Foreign Institutional Investment at Firm Level:

This section of the study is showing the results when foreign direct investment model is estimated with common effect model, fixed effect model and random effect model.

Table No. 4.8 Evidence on Foreign Direct Investment flows at firm level

Variables	Model I	Model II	Model III
	CEM	FEM	REM
C	19.369*** (2.581)	17.244*** (2.634)	18.012*** (2.678)
SIZE	-0.380 (-0.611)	-0.396 (-0.669)	-0.443 (-0.781)
CGY	0.635 (0.536)	-0.746* (-1.750)	-0.707* (-1.662)
LEV	0.326 (1.446)	0.336*** (3.443)	0.338*** (3.478)
DY	52.780*** (2.758)	13.345 (1.449)	14.105 (1.541)
GDR	-12.823** (-2.323)	1.059 (0.237)	-0.084 (-0.019)
BS	4.742*** (7.008)	0.373 (0.746)	0.503 (1.036)
CEO	-0.578 (-0.259)	-1.767 (-1.219)	-1.678 (-1.178)
NACM	-2.588*** (-3.409)	0.432 (1.178)	0.340 (0.932)
NED	-4.821*** (-8.218)	-0.340 (-0.947)	-0.518 (-1.462)
Observations	1099	1099	1099
R²	0.095	0.903	0.022
S.E. of regression	26.297	9.021	9.045
Sum squared resid	753095.8	80566.61	89089.74
F-statistic	12.729	85.533	2.654
Prob(F-statistic)	0.000	0.000	0.005
Hausman Test		14.760	
P-Value		0.098	

Source: Author's own calculations. *, **, *** indicate significance at 10%, 5%, and 1% level of significance, respectively. Values in parenthesis are the t-values.

Table 4.8, shows the results of three different model of regression run through statistical software. All the three models suggest that size of the firm has negative but insignificant impact on foreign direct investment flows in firms listed in Pakistan. Results confirm that direct investors are with long term investment plan and more interested in growth oriented firms in the business life cycle. This is also confirmed by Radom and Fixed effect model that there is a negative and significant impact of stock returns on foreign direct investors.

Similarly, foreign direct investors prefer use of debt for financing the assets. All three models show positive, but only insignificant in Common effect model, impact of leverage on foreign direct investment at firm level in Pakistan. These findings confirm that instead of sharing ownership, foreign direct investors prefer external financing for growth. Likewise, all the three models suggest positive impact of dividend yield on foreign direct investment, but findings are only significant in the results of Common effect model. The results of this study confirm that foreign direct investors prefer growth by training the earning but less frequent sharing with higher values.

Issuance of global depository receipts affects the foreign direct investment negatively. The result of Common effect model suggests that the affect is negative and significant. The study confirms that GDRs don't attract foreign direct investors. The study further investigated and finds positive impact of board size on foreign direct investment at firm level in Pakistan. The results confirm that direct investors are interested in their representation in board of directors therefore, board size matters for them.

Likewise, duality of CEO, frequency of audit committee meetings and increased minority representation affects foreign direct investment negatively and insignificantly at firm level in Pakistan. The study confirms that foreign direct investors most of the times organize board of directors in the manner to influence the decision process as desired by them.

CHAPTER 5:

Conclusion:

This study highlights the determinants of foreign investment in Pakistan. Foreign investment can be attracted by firm level factors and country level factors simultaneously. Therefore, the study first evaluated country level determinants of foreign portfolio investment for period of 2005-2015 and then focused on firm level determinants by taking sample of 100 listed non-financial companies for the same period.

The study suggests that better performance of stock market encourages foreign portfolio flows to Pakistan; results are in accordance with Chaudhry et al. (2014), Garg and Dua (2014), Chukwuemeka et al. (2012), and Kaur and Dhillon (2010). Country liquidity plays an important and significant role in attracting foreign portfolio investors. Findings are in contrast with Garg and Dua (2014), who studied for India.

Industrial production growth is surprisingly negatively relates to the portfolio investors which contrast with the findings of Waqas et al. (2015), Garg and Dua (2014) Chuhan et al. (1993). Inflation positively affects the FPI flows to Pakistan but the results are insignificant, opposing the findings of Kaur and Dhillon (2010). Interest rate and trade openness also encourage FPI to Pakistan but the effect is insignificant. The results are consistent with Chaudhry et al. (2014). Exchange rate variations affect the FPI negatively but insignificantly.

On the other hand, empirical evidence suggests that, total foreign investment at firm level is significantly affected by firm size, financial leverage, dividend yield and issuance of Global Depository Receipts. But looking at institutional and direct investors separately, the study suggests different findings.

Foreign institutional investors consider size of the firm and prefer to invest more in larger firms but foreign direct investors inversely do not prefer to invest in large firms. The study suggests that, large firms should focus on attracting institutional investors and comparatively small firms should focus on attracting foreign direct investors. The findings of foreign institutional investment related to firm size are consistent with Bradshaw et al. (2004) and Aggarwal et al. (2005).

Similarly, foreign institutional investors invest more in firms paying cash dividend and less in firms using more debt but, on the other side, foreign direct investors invest more those firms which retain their earnings and use more debt to finance their assets. The study suggests that, these findings are in accordance with the nature of both types of investors. Foreign institutional investors are short term investors therefore, prefer cash dividends and do not prefer to share monetary costs with financial institutions. Whereas, foreign direct investors are long term investors therefore, focus on long term growth of the firm instead of short term cash flows.

Likewise, foreign institutional investors prefer to invest in the firms issuing global depository receipts but foreign direct investors react inversely. The study suggests that, GDRs are issued to attract foreign institutional investors and empirical evidences support the initial purpose of issuing GDR.

Furthermore, foreign direct investors prefer large board sizes, lesser number of audit committee meetings, minimum representation of minorities and chairmen of the board of directors should also be the CEO of the companies. Whereas, foreign institutional investors prefer smaller board sizes, duality of CEO, more number of audit committee meetings and lesser non-executive/independent directors. These findings indicate that, foreign direct investors can influence more through large board sizes and lesser minority representation, but foreign institutional investors prefer smaller board sizes, which just compliance with Corporate Governance Code. Similarly, firms with duality of CEO pay more dividends therefore; foreign institutional investors prefer CEO duality because they prefer dividends as earlier mentioned and vice versa.

5.2 Recommendations

The findings of the study recommend that at country level stock market performance and foreign reserves of the country should be maintained and improved to attract foreign portfolio investment inflows. Foreign portfolio investments mostly invest in liquid assets and easily outflow in unpleasant situations. Therefore, inflation rate, interest rates, exchange rate and trade openness should be regulated according to the requirements of capital inflows at country level in Pakistan.

At firm level, this study recommends that organizations should prioritize their interests, whether in foreign institutional or direct or both type of investments suit their preferences. This will help them in setting their policies according to the findings against each category. Issuance of global depository receipts is highly recommended for those firms, who are interested in institutional investment inflows in Pakistan.

5.3 Directions for Future research

At policy level Pakistan has to sort out the need of foreign investment whether in the form of foreign direct investment or foreign portfolio investment. Once the need of foreign investment in Pakistan is highlighted, then these findings help policy maker for attracting the foreign investment.

China Pakistan Economic Corridor (CPEC), a mix of foreign debt and small portion of foreign direct investments in thermal power plants by Chinese companies, can be a game changer depending upon the policy reforms. CPEC project itself may not bring foreign investment in Pakistan, but this can be used for attracting the foreign investors particularly from China. Purchase of 40% stake of Pakistan Stock Exchange by Chinese consortium and the interest shown by Shanghai Electric Power Co. Ltd in 66.4% stake of K-electric are good examples of Foreign Direct Investment as consequence of CPEC, in Pakistan. Policy makers at firm level and as well as at country level, can attract foreign investors by controlling the mentioned determinants of foreign investment in Pakistan. In future, one can try to study the impact of above determinants on foreign investments as a result of CPEC.

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Appendix:

Unit Root Test

Augmented Dickey-Fuller test statistic for country level variables

Variable	t-Statistic	Prob.*
FPI	-3.227056	0.0207
INF	-0.915185	0.7805
D(INF)	-6.110147	0.0000
INT	-1.106609	0.7120
D(INT)	-5.523446	0.0000
IPI	-3.548618	0.0083
PSE	-9.557499	0.0000
Reserve	-12.00985	0.0000
TO	-1.606321	0.4765
D(TO)	-17.61796	0.0000
XR	-7.390691	0.0000

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	17.529083	9	0.0410

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SIZE	1.280688	1.093390	0.039963	0.3488

CGY	-0.624811	-0.574322	0.000620	0.0425
LEV	0.301764	0.302369	0.000100	0.9517
DY	19.406554	20.016713	1.409710	0.6073
GDR	20.349721	17.937173	1.537368	0.0517
BS	0.628008	0.668864	0.020509	0.7754
CEO	-1.348521	-1.152020	0.100430	0.5352
NACM	0.622615	0.525336	0.002437	0.0488
NED	-0.344008	-0.574877	0.005023	0.0011

Cross-section random effects test equation:

Dependent Variable: FI

Method: Panel Least Squares

Periods included: 11

Cross-sections included: 100

Total panel (unbalanced) observations: 1099

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.503866	7.165368	0.070320	0.9440
SIZE	1.280688	0.648407	1.975130	0.0485
CGY	-0.624811	0.466266	-1.340031	0.1805
LEV	0.301764	0.106814	2.825132	0.0048
DY	19.40655	10.07927	1.925393	0.0545
GDR	20.34972	4.885870	4.165015	0.0000
BS	0.628008	0.547287	1.147492	0.2515
CEO	-1.348521	1.586541	-0.849976	0.3955
NACM	0.622615	0.401840	1.549410	0.1216
NED	-0.344008	0.393153	-0.874997	0.3818

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.885338	Mean dependent var	18.85025
Adjusted R-squared	0.872830	S.D. dependent var	27.68878
S.E. of regression	9.874088	Akaike info criterion	7.511616
Sum squared resid	96522.65	Schwarz criterion	8.007735
Log likelihood	-4018.633	Hannan-Quinn criter.	7.699310
F-statistic	70.77851	Durbin-Watson stat	0.597326
Prob(F-statistic)	0.000000		

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	30.783270	9	0.0003

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SIZE	1.677098	1.451354	0.006149	0.0040
CGY	0.120696	0.128530	0.000101	0.4353
LEV	-0.034210	-0.037789	0.000017	0.3800
DY	6.061122	5.541065	0.233890	0.2822
GDR	19.291091	17.407762	0.242822	0.0001
BS	0.255279	0.060817	0.003174	0.0006
CEO	0.417924	0.580512	0.016182	0.2012
NACM	0.190170	0.213532	0.000403	0.2446
NED	-0.003780	-0.039095	0.000816	0.2165

Cross-section random effects test equation:

Dependent Variable: FII

Method: Panel Least Squares

Periods included: 11

Cross-sections included: 100

Total panel (unbalanced) observations: 1099

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16.74007	2.119367	-7.898618	0.0000
SIZE	1.677098	0.191785	8.744665	0.0000
CGY	0.120696	0.137912	0.875169	0.3817
LEV	-0.034210	0.031593	-1.082827	0.2791
DY	6.061122	2.981239	2.033089	0.0423
GDR	19.29109	1.445139	13.34895	0.0000
BS	0.255279	0.161876	1.576999	0.1151
CEO	0.417924	0.469266	0.890591	0.3734
NACM	0.190170	0.118856	1.600005	0.1099
NED	-0.003780	0.116286	-0.032508	0.9741

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.807838	Mean dependent var	2.723142
Adjusted R-squared	0.786874	S.D. dependent var	6.326258
S.E. of regression	2.920550	Akaike info criterion	5.075332
Sum squared resid	8444.317	Schwarz criterion	5.571451
Log likelihood	-2679.895	Hannan-Quinn criter.	5.263026
F-statistic	38.53604	Durbin-Watson stat	0.970207
Prob(F-statistic)	0.000000		

Correlated Random Effects - Hausman Test

Equation: FIRMLEVELDETERMINANTS

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	14.759949	9	0.0977

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SIZE	-0.396410	-0.443376	0.028491	0.7808
CGY	-0.745508	-0.707002	0.000437	0.0656
LEV	0.335974	0.338196	0.000070	0.7908
DY	13.345432	14.104872	0.991145	0.4456
GDR	1.058631	-0.083607	1.090692	0.2741
BS	0.372729	0.502697	0.014609	0.2822
CEO	-1.766445	-1.678249	0.070986	0.7406
NACM	0.432445	0.339847	0.001714	0.0253
NED	-0.340227	-0.517901	0.003545	0.0028

Cross-section random effects test equation:

Dependent Variable: FDI

Method: Panel Least Squares

Periods included: 11

Cross-sections included: 100

Total panel (unbalanced) observations: 1099

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.24394	6.546383	2.634116	0.0086
SIZE	-0.396410	0.592394	-0.669167	0.5035
CGY	-0.745508	0.425988	-1.750069	0.0804
LEV	0.335974	0.097587	3.442820	0.0006
DY	13.34543	9.208566	1.449241	0.1476
GDR	1.058631	4.463801	0.237159	0.8126
BS	0.372729	0.500010	0.745445	0.4562
CEO	-1.766445	1.449487	-1.218669	0.2233
NACM	0.432445	0.367127	1.177917	0.2391
NED	-0.340227	0.359190	-0.947207	0.3438

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.903202	Mean dependent var	16.12711
Adjusted R-squared	0.892643	S.D. dependent var	27.53239
S.E. of regression	9.021110	Akaike info criterion	7.330923
Sum squared resid	80566.61	Schwarz criterion	7.827042
Log likelihood	-3919.342	Hannan-Quinn criter.	7.518617
F-statistic	85.53254	Durbin-Watson stat	0.564473
Prob(F-statistic)	0.000000		