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THE ROLE OF FOREIGN CAPITAL IN STIMULATING DOMESTIC INVESTMENTS IN PAKISTAN

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Abstract

Pakistan, a developing country, desperately looked for foreign investment in order to promote growth and investment. Pakistan introduced a number of policy measures in the last few decades and attracted substantial foreign investments. But it is not clear whether foreign investments inflows in Pakistan played any role in growth and development in Pakistan? This study employs a system of equations to investigate the nexus between FDI, portfolio and domestic investment in Pakistan. The main objective of this research is to measure the impact of foreign direct, portfolio investment and other forms of capital inflows on domestic, especially on private investment, in Pakistan. The results show that FDI inflows promoted domestic investment in Pakistan, where FDI and domestic investment reported a one-to-one relationship. The findings of the study also confirm that domestic investments contribute to FDI inflows; thus, FDI and domestic investment mutually cause each other. On the other hand, portfolio investments play an insignificant role in determining domestic investment in Pakistan. This shows that compared to portfolio investment, Pakistan needs to focus on foreign direct investment inflows for promoting growth and private investment at home.

Keywords: FDI, Domestic Investments, Portfolio Investment, Pakistan, System of Equations.
JEL Classification: F21, F41.

I. Introduction

Neoclassical and Endogenous growth theories suggest that Foreign Investment contributes to growth in host countries, especially by encouraging domestic investment [Shah, et al., (2020a)]. Many developing countries look for foreign investments, such as FDI, in order to fill the saving-investment gap and promote domestic investment. Foreign investment promotes not only growth and investment at home but also promotes competition, expand international market access for local products, and brings

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along the latest technology and technical knowledge in host countries [Blomstrom and Kokko (2000)]. Capitalist economics considers that foreign investment is important for long-term economic growth, while 'Modernization Hypothesis' give special importance to the role of FDI in the development of lagging behind economies [De Mello (1999)]. Similarly, supporters of 'Free Market' propose foreign investment is an effective dose to cure all the ailing stumbling economies. Bhagwati (2007) consider that FDI inflows uplift the host economies, and he called the phenomenal positive contribution FDI to bring to the host country as a 'race to the top'.

On the contrary, the scholars from Dependency theory and Orthodox Economics doubt the positive role of foreign capital inflows [Garretsen and Peeters (2007)]. Dependency theory blames FDI for the productivity trap. They argue that foreign direct and portfolio investment is detrimental to growth mainly because foreign investment crowds out domestic investment. They consider the huge influx of capital inflows to developing countries as a new form of colonialism where foreign capital not only disrupts the local investment, but it helps the foreign capital exploit natural resources at host country [Garretsen and Peeters (2007)]. Bornschier and Chase-Dunn (1985) claimed that capital availability and technical expertise in the hands of foreign investors lead to a monopoly in many cases and underutilize productive resources in host countries.

Other scholars suggest that foreign capital such as FDI inflows is neither good nor bad. The efficacy of foreign investment squarely depends on the minimum threshold level of vibrant institutions, reasonable literacy rate, market size, per capita GDP, domestic investment and efficient infrastructure in host countries [Lim (2001) and Kinda (2007)]. It shows that the good and bad aspects of foreign capital cannot be generalized and the spillover impact of foreign capital can vary from country to country. This question poses a challenge to the cross country studies on the positive effect of foreign capital inflows. The cross country difference encourages country-specific studies to promote a more accurate description of the FDI impact on a host country [Adam (2009) and Moosa and Cardak (2005)].

Pakistan introduced a number of policy reforms since the 1990s in order to attract foreign investment with the main objective to promote growth and revive the lackluster Pakistan economy [Ahmad, et al., (2003) and Naveed and Shabbir (2006)]. De Mello (1999) considers that the growth-promoting effects of foreign investment count on the relationship between foreign and local investment. Therefore, we assume that foreign investment is not a guarantee for growth in Pakistan. Hence, it is important to investigate whether foreign investment inflows promote domestic investment in Pakistan or not? A cursory look at the foreign (both FDI and portfolio) investment inflows and domestic investment in Pakistan shows that despite the rise in foreign investment inflows, the domestic investment in Pakistan has not registered any improvement and have remained lowest in the region [UNCTAD (2012)]. Foreign direct investment and domestic investment depict some co-movement (Figure 1). It is yet to be tested empirically if FDI has any impact on domestic investment in Pakistan or

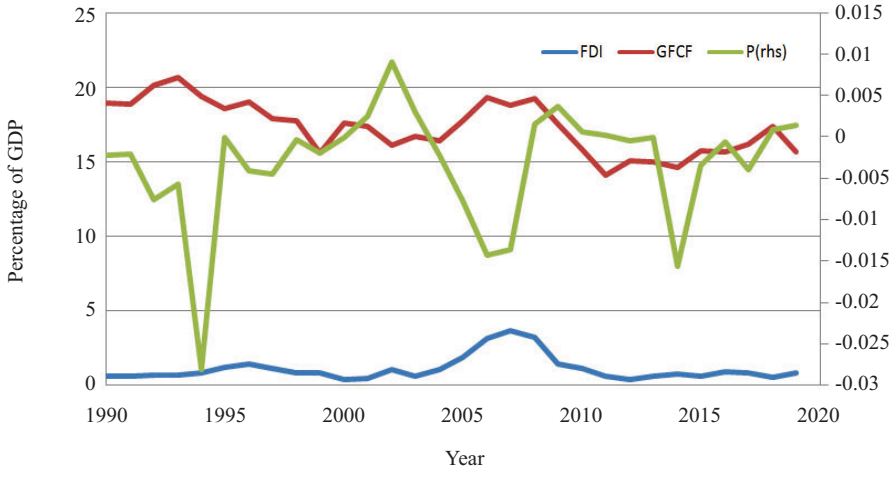

FIGURE 1

Foreign Capital Inflows and Domestic Investment

not? Therefore, the main purpose of this study is to explore the nexus between FDI and domestic investment in Pakistan.

The study is organized as follows. Section II discusses the literature review, Section III deals with data and methodology and Section IV consists of results and discussion. The Section V of the study is the conclusion.

1. FDI, Portfolio and Domestic Investment in Pakistan

The global flow of FDI increased manifold and the concept of openness and globalization was staunchly supported by developing and developed countries in the last quarter of the twentieth century. In order to get benefit from FDI and intensify globalization, Pakistan introduced a number of policy reforms in the 1990s with a main focus to encourage FDI inflows and boost global economic integration. In the 1990's financial reforms (such as autonomy to the stock market and central bank along with privatization of state-owned enterprises) significantly changed the aptitude of Pakistan towards FDI.

Initially, reforms increased the inflows of portfolio investment in 1990 (Figure 1). However, the inflows of FDI got momentum and increased more than the portfolio investment. FDI inflows in Pakistan peaked in 2008-09. In the meantime, domestic investment kept pace with incoming FDI; in 2006-07, domestic investment was more than the level of FDI, but it declined sharply after the 2007-08 financial crisis. Figure 1 shows that FDI inflows and domestic investment depict a close co-movement. It is also an indication of some meaningful relationship between the two variables.

FDI inflows and domestic investment grew sustainably, portfolio investment remained stagnant and declined drastically after 1994-95. The main reason for the sudden rise of portfolio investment in 2006-07 was the financial crisis in developed countries. The investment was less lucrative in those countries hit hard by the financial crisis; therefore, some investors put their money in developing countries like Pakistan. Portfolio investment in Pakistan declined and left the country as the hard-hit of developed countries recovered and the investors found better places to store their money.

II. Literature Review

It is considered that foreign investment affects almost every sector of an economy, but the effect of foreign investment inflows on domestic investment is crucial for economic development [Bosworth and Collin (1999) and Hecth, et al., (2004)]. Theory suggests that FDI inflows bring capital and technical knowledge to a host country. FDI inflows also encourage a business-friendly environment in the host country and facilitate local investors to connect to the global supply and production chain [Shah, et al., (2020b)]. FDI is a good source to get the latest technology and new management skills. Together, these factors enhance the productivity of the local firms and encourage domestic investment. It shows that local investors in the host country are directly and indirectly benefit from FDI inflows. This theoretical assertion is supported by empirical work [Bosworth and Collins (1999) and Devereux and Freeman (1995)]. However, some theoretical findings go against the mainstream theories and suggest that FDI inflows not only discourage domestic investment, but in some cases, FDI throw the local investors out of the local market [Adams (2009)]. Such findings are quite contrary to the policy objectives in developing countries where they try to attract more FDI in order to boost business and encourage local investment.

The importance of FDI in developing countries increased substantially when developing countries were faced with scarce finances and meagre domestic investment. Unfortunately, domestic investment in developing countries is insufficient to fill the resource gap [Trade and Development Report (1999)]. Bosworth and Collins (1999) study on 58 developing countries found that one per cent foreign investment increase domestic investment by 0.50 per cent; however, the impact of foreign investment increases when it takes the form of FDI. They report that a one per cent increase in FDI increases domestic investment by more than 1 per cent. They also suggest that FDI and domestic investment exhibit a one-for-one relationship. Hecht, et al., (2002) confirmed the positive impact of FDI on domestic investment, but they report less than a one-for-one relationship. Similarly, Desai, et al., (2005) suggest that foreign and domestic investment exhibit strong and positive long term relationships in the U.S. These shreds of evidence imply that FDI crowd-in domestic investment.

There is no dearth of studies which give more importance to domestic investment over FDI to achieve long-run sustainable growth [Keshava (2008)] but Kindleberger

(1969) took the discourse on FDI and domestic investment into a completely different direction and asked why capital in foreign hands is more productive than capital possessed by local investors? Encarnation and Wells (1986) tried to understand the role of FDI inflows; they found that FDI plays a relatively effective role in competitive sectors and that FDI fails to produce positive results when it flows to heavily protected industries. Others suggest that the contribution of FDI depends on its sectoral allocation. Some scholars consider that FDI inflows crowds in domestic investment and promote growth only in manufacturing sectors in Asia [Agosin and Mayer (2000) and Mwilima (2003)]. Adams (2009) considers that FDI inflows do not assert any influence on domestic investment in primary sectors in developing countries. Some studies suggest that FDI inflows in the primary sector adversely affect economic activities [Kumar and Pradhan (2002) and Shah, et al., (2020a)].

Yasmin, et al., (2004) consider that although portfolio investment is an important part of foreign investment but it is more volatile compared to other forms of foreign investment. Volatility reduces the effectiveness of portfolio investment, particularly in the long term. Razin (2002) and Goldstein and Razin (2003) underscored the importance of portfolio investment and tried to distinguish it from foreign direct investment in order to understand how this form of investment can be used effectively to promote growth. Compared to FDI, portfolio investment did not receive much attention in the literature on foreign capital inflows.

III. Methodology and Data

1. Stationarity Check

The first step in empirical estimation of time series data is to check the stationarity of the variables. The presence of unit roots and order of integration produce biased results which cannot be justified. Therefore, to determine the order of integration and check the stationarity of the variables, we rely on Augmented Dickey-Fuller (ADF) test. The Augmented Dickey-Fuller (ADF) is a widely used unit root test.

2. Capital Inflows and Domestic Investment

In this study, we rely on the Hecht, Razin and Shinar (HRS) model to measure the impact of foreign investment, FDI and Portfolio, on domestic investment in Pakistan. Hecht, et al., (2002) tried the HRS model to measure the effect of different kinds of foreign investment inflows in host countries. The HRS model relies on the system of four equations. Equation one takes Domestic Investment (DI) as the dependent variable while equations two, three and four consider Foreign Direct Investment (FDI), Portfolio Investment (P) and Loans (L) as dependent variables, respectively. These equations are solved simultaneously. Including one period lag dependent variable as an

explanatory variable turns these equations into a dynamic system and helps them transmit more information. Similarly, the system of equations tests the role of all kinds of foreign investment inflows, including FDI, on the domestic investment in the host country. Such an exercise will not only throw light on the importance of FDI and also highlight the importance of foreign direct investment in the presence of portfolio investment and loans.

The following system of Equations better explains the real situation.

$$DI_t = \beta_{11} + \beta_{12} DI_{t-1} + \beta_{13} GDPg_t + \beta_{14} FDI_t + \beta_{15} P_t + \beta_{16} L_t + \beta_{17} G_t \quad (1)$$

$$FDI_t = \beta_{21} + \beta_{22} FDI_{t-1} + \beta_{23} DI_t + \beta_{24} GDPg_t + \beta_{25} USint \quad (2)$$

$$L_t = \beta_{31} + \beta_{32} L_{t-1} + \beta_{33} DI + \beta_{34} GDPg_t \quad (3)$$

$$P_t = \beta_{41} + \beta_{42} P_{t-1} + \beta_{43} DI_t + \beta_{44} GDPg_t + \beta_{45} USg \quad (4)$$

The above system of equations has four endogenous variables, i.e. Domestic Investment (DI), Foreign Direct Investment (FDI), Portfolio Investment (P) and Loans (L). The system of the equation not only tackles the endogeneity problem but the use of lag dependent variables as regressors in the system of the equation also address the issue of non-stationarity in residuals. The Government expenditure (G), lagged dependent variables, the US growth (USg) and the US interest rate (USint) are used as exogenous variables for identification in the system of equations. The description of all the variables employed by the system of equations is given in Table 1. The data on the variables are retrieved from three main sources, namely WDI, Economic Survey of Pakistan (ES) and the State Bank of Pakistan. The range of our data in this study is 1980 to 2017.

3. FDI and Domestic Private Investment

It is considered that foreign investment in developing countries first encourages public investment and later, it paves the way for domestic private investment. This happens because the public sector in developing countries is stronger than the private sector. The role of public investment in economic growth cannot be denied, but it is private investment that put an economy on a growth trajectory [Shah, et al., (2020b)]. To better understand how FDI affect domestic investment, in this study, we divide domestic investment into two groups, i.e. Public and Private Investment. We use the following model in order to unearth the impact of FDI on private investment.

$$Pr\,DI = \alpha + \beta\, FDI + \lambda PuDI + \xi 1HC + \omega MW + \pi EC + \psi OP + \theta LR + \nu_i \quad (5)$$

TABLE 1

Description of the Variables

Variable	Description	Source
DI	Domestic Investment % of GDP	SBP
FDI	Foreign Direct Investment % of GDP	SBP
L	Bank Loans % of GDP	SBP
P	Portfolio Investment % of GDP	WDI
GDPg	Annual Growth Rate	SBP
G	Government Consumption % of GDP	WDI
USg	GDP Growth Rate in the US	WDI
US int	United States Long Term Interest rate	WDI
Range of the Data is from 1980 to 2017.		

Source: Authors' estimation.

Equation (5) shows the impact of FDI as a per cent of GDP on private investment in Pakistan. PrDI is a private investment, while PuDI stands for public investment. Similarly, FDI is the inflow of direct investment in Pakistan. The descriptions of other important controlled variables are given in Table 2.

TABLE 2

Variables in Private Investment Regression

Variable	Description	Source
PrDI	Private Investment % of GDP	SBP
FDI	Foreign Direct Investment % of GDP	SBP
PuDI	Public investment % of GDP	SBP
Hc	Literacy Rate	ES
MW	Wages in Manufacturing (Annual Average)	ES
OP	Trade Openness	Calculated
EC	Use of Electricity	ES
LR	Real Lending Rate	SBP
Range of the Data is from 1980 to 2017.		

Source: Authors' estimation.

4. FDI and Domestic Investment

The main focus of this research is to explore whether foreign direct investment and domestic investment complement or substitute each other and what are the

channels through which FDI and domestic investment affect each other. De Mello (1999) considers that a complementary relationship between foreign investment and domestic investment is necessary for the positive trickle-down effect of FDI in host countries. Against this backdrop, the nexus between FDI inflows and domestic investment and their ultimate impact on economic growth in host countries is not a self-evident process. Instead the relationship between FDI, domestic investment and their impact on growth is more complex. The relationship between foreign investment and domestic investment is insufficiently explored territory. Developing countries are eager to attract more FDI and assume that incoming FDI will always contribute to domestic investment and the local economy, but in reality, FDI can crowd out domestic investment and can retard the process of development. Similarly, sector and country context, both historical as well as institutional, is important for the positive impact of FDI in a host economy.

In this study, we include a dummy for policy change in our model, knowing that the impact of FDI on domestic investment is partly policy-driven and it is sensitive to law and order situations. In order to capture the impact of precarious law and order situations, we come up with a new model that includes a dummy for law and order mainly to understand the impact of FDI on domestic investment in light of law and order in Pakistan. The model for this is given as in Equation (6):

$$DI_t = \alpha_0 + \alpha_1 GDPg_t + \alpha_2 Crd_t + \alpha_3 FDI_t + \alpha_4 ToT_t + \alpha_5 LR_t + \alpha_6 Dp + \alpha_7 Dl + \varepsilon_t \quad (6)$$

The description and source of the explanatory and dependent variables in Equation (6) are explained in Table 3.

TABLE 3

Variables in FDI Impact on Domestic Investment

Variable	Description	Source
DI	Domestic Investment % of GDP	SBP
GDPg	Growth Rate of GDP	SBP
Crd	Credit Availability in Pakistan % of GDP	SBP
FDI	FDI % of GDP	SBP
ToT	Terms of Trade	SBP
LR	Real Lending Rate	SBP
*D (P)**	Policy Reform Dummy (1 from 1998 to 2007 and 0 otherwise)	
*D (l)**	Law and Order Dummy (1 from 2001 to 2010 and 0 otherwise)	

Range of the Data is from 1980 to 2017.

Source: Authors' estimation.
*used alternatively.

IV. Results and Discussion

1. Stationarity Check

ADF results in Table 4 show that all the variables are integrated at the first difference, confirming the fact none of the variables is integrated at I(2).

TABLE 4

Results of Unit Root Tests

	Level	First Difference	Conclusion
DI	1.1000	-4.8130*	I(1)
FDI	-2.3201	-5.1920*	I(1)
L	-0.4142	-14.2119*	I(1)
P	-2.5112	-3.4912**	I(1)
GDPg	-1.9002	-6.8412*	I(1)
G	-2.1401	-11.4311*	I(1)
USg	-1.4682*	-5.1143*	I(1)
US int	-2.0764*	-6.8719*	I(1)
PrDI	-1.1201	-6.1520*	I(1)
PuDI	-3.3312	-5.4412**	I(1)
Hc	-1.4402	-3.3442*	I(1)
MW	-2.2301*	-11.3331*	I(1)
OP	-1.5382	-5.4563*	I(1)
EC	-1.5742*	-6.4549*	I(1)
LR	-2.3321	-6.1920*	I(1)
Crd	-2.9322	-2.3354*	I(1)
ToT	-4.4322*	-5.3323*	I(0)

Source: Authors' estimation.
Significant at * and ** at 1 and 5 per cent level.

Based on findings in Table 4, we rely on the first difference of the variables in the process of estimation.

2. HRS Model

The HRS model-based results report that it is only FDI that positively and significantly affect domestic investment in Pakistan [Table 5 to 8]. The results show that capital inflows other than FDI, such as portfolio investment and foreign loans, do not contribute to domestic investment in Pakistan. It shows that, although foreign investment takes dif-

TABLE 5

Determinants of DI

	Coefficient	Probability
Constant	12.6261	0.0344**
DI-1	0.4131	0.0009*
GDPg	0.1439	0.0340*
FDI	0.8663	0.0027*
L	-0.1885	0.3151
P	0.0004	0.3891
G	0.1806	0.1556
F-Statistics	11.2411	0.0001
R-Square	0.82	
Breusch-GodfreyTest(p-value)	0.001	

Source: Authors' estimation.
Significant at * and ** at 1 and 5 per cent level.

ferent forms, but only FDI complements domestic investment. The results in Table 5 show that one per cent increase in FDI inflows stimulate local investment almost by one per cent (0.86 per cent). FDI inflows have a nearly one to one relationship in complementing domestic investment in Pakistan. This finding is similar to that of Bosworth (1999).

Table 5 shows that besides FDI, GDP growth and lagged domestic investment are very important determinants of domestic investment. However, loan, portfolio investment and government expenditure did not play any significant role in causing domestic investment. It shows that FDI, GDP growth and lagged values of FDI are some of the important elements that can boost domestic investment in Pakistan.

The findings in Table 6 shows that domestic investment and GDP growth reciprocate and play a role in attracting FDI into Pakistan. GDP growth is a sign of market power. It shows that FDI inflows increase as the market expands. Similarly, an increase in domestic investment, a proxy for the structure of the local economy, assert a positive influence on FDI inflows. As shown by the insignificant USint in Table 6, the FDI inflows in Pakistan are less sensitive to the international market and return on direct investment abroad.

The finding in Table 6 shows that FDI not only contributes to domestic investment in Pakistan and plays an important role in determining FDI inflows. It is also a big attraction for portfolio investment in Pakistan. Contrary to the positive role of domestic investment in enhancing the incoming flow of FDI and portfolio investment, the impact of domestic investment in determining loans are insignificant (Table 8). The results in Tables 5 and 6 indicate another finding worth discussion for policy implication in Pakistan: the impact of FDI in determining domestic investment in promoting domestic investment is far greater than the impact of domestic investment in determining foreign capital inflows. Thus, the policy inferences are a very clear local investor in Pakistan

TABLE 6

Determinants of FDI

	Coefficient	Probability
Constant	-2.4133	0.0431**
FDI-1	0.5404	0.0023*
DI	0.1557	0.0410*
GDPg	0.1280	0.0327*
USint	-0.0935	0.3994
F-Statistics	8.4122	0.0422
R-Square	0.81	
Breusch-Godfrey Test (p-value)	0.000	

Source: Authors' estimation.
Significant at * and ** at 5 and 10 per cent level.

needs endorsement from a foreign investment before they venture. It also indicates a weak institutional setup and poor support system, which do not encourage people to venture out. The new venture in Pakistan (such as Daewoo Bus service, oil refineries, designer clothes) are explored by foreign investment. In these cases, foreign investors open new ventures for investment and thus stimulate domestic investment.

Table 7 shows that the Bank loan is more responsive to growth in GDP. In other words, a bank loan is available when the economy is doing well. Loan offered by Bank in previous years and DI did not determine bank loan in Pakistan.

Developing countries put more emphasis on the inflow of FDI; however, after the connectivity of bourses and the positive effect of investment in stock, many of the developing countries are trying to encourage and monitor portfolio investment.

TABLE 7

Determinants of Bank Loans

	Coefficient	Probability
Constant	6.0845	0.0857***
L-1	0.6631	0.0000*
DI	-0.0170	0.6304
GDP	0.5629	0.0071*
F-Statistics	9.1214	0.0011
R-Square	0.79	
Breusch-Godfrey Test (p-value)	0.000	

Source: Authors' estimation.
Significant at * and ** at 5 and 10 per cent level.

Among the main determinant of Portfolio investment in Pakistan in Table 8 are the declines in US growth rate (as a reflection of the world economy) and the rise in domestic investment in Pakistan. The decline in US growth is showing that the investors want to take their money to other alternate places, while the increase in domestic investment in Pakistan is again reflecting a better environment for Pakistan. The F statistics and other diagnostic tests show that the model is a good fit and there is no issue of autocorrelation.

TABLE 8

Determinants of Portfolio Investment

	Coefficient	Probability
Constant	-3160.1750	0.0010*
P-1	-0.1903	0.3435
DI	1.6710	0.0011*
GDPg	0.0781	0.7709
USg	-1.0881	0.0683**
F-Statistics	16.4675	0.0001
R-Square	0.81	
Breusch-Godfrey Test (p-value)	0.021	

Source: Authors' estimation.
Significant at * and ** at 5 and 10 per cent level.

3. FDI and Domestic Private Investment

The results on the system of equations in the HRS model show that FDI and domestic investment affect each other and the relation between the two crucial variables is unknown. Shah et al., (2020b) report a significant two-way causal relationship between FDI and local investment in Pakistan. However, the causal relationship between public and private domestic investment is still a mystery? It is assumed that the two types of domestic investment have different sources and exhibit very different behaviour.

Results on private domestic investment in Table 9 shows that one per cent increase in FDI inflows, increases domestic private investment by 1.2 per cent. On the other hand, one per cent increase in public sector investment increases private investment by 0.06 per cent. This re-confirms our previous findings that compared to other forms of investment, FDI strongly determines domestic private investment in Pakistan. Table 9 also report that increase in wages (MW) adversely affect domestic investment, given that productivity does not change. Other variables of interest, such as OP and EC in Table 9, carries expected signs, but they assert insignificant influence on domestic investment.

TABLE 9

FDI Impact on Private Investment

	Coefficient	Probability
Constant	11.2097	0.1663
FDI	1.2097	0.0199**
PuDI	0.6420	0.0673***
Hc	0.1004	0.3004
MW	-0.0135	0.0546***
OP	-0.1502	0.4818
EC	-0.4999	0.2181
LR	-0.0032	0.7573
F-Statistic	19.9000	0.0000
R-Square	0.93	
Breusch-Godfrey Test (p-value)	0.001	

Source: Authors' estimation.
Significant at * and ** at 5 and 10 per cent level.

4. Impact of FDI on Domestic Investment

FDI integrate the local economy into the world economy and expose the host country to many risks and opportunities. However, domestic situations are crucial in reaping the positive externalities; for example, FDI loses charm in wars and conflict areas [Shah, et al., (2016)]. In Equation (6), we employ some non-traditional variables in order to see whether the ongoing situation and deteriorating law and order condition in Pakistan affected the contribution of FDI inflows to Pakistan or not? We use dummies for war and polity and the results are reported in Table 10.

The findings in Table 10 endorse our previous findings and suggest that despite the deteriorating law and order situation, foreign investment positively contributed to domestic investment in Pakistan. It indicates that the effect of FDI on domestic investment is consistent throughout this study. The two dummies in Table 10 show that domestic investment increased more in non-democratic regimes compared to the democratic setup in Pakistan. One plausible reason for this finding is the increase in non-democratic regimes more than the democratic setup in Pakistan. The non-democratic setups in Pakistan have better records of policy consistency which not only earned the trust of local investors, but their policy consistency also played an effective role in attracting foreign investment. Replacing the polity dummy by war dummy severely reduced the contribution of foreign investment in Pakistan. This shows that the effectiveness of polity does not affect the flow and contribution of FDI in Pakistan, but the war on terror severely dented the effectiveness of FDI in promoting domestic investment in Pakistan.

TABLE 10

Dependent Variable – Domestic Investment

	Coefficient	Probability
Constant	9.9581	0.0202**
GDPg	0.1217	0.1446
Crdt	-0.0605	0.4620
FDI	1.8730	0.0003*
Crdt/Y	-0.0605	0.4620
TOT	-0.0346	0.0119**
LR	-0.4523	0.0261**
DP	1.9483	0.0007*
DW	-2.6306	0.0068*
F-Statistic	20.8781	0.0006
R-Square	0.93	
Breusch-GodfreyTest(p-value)	0.011	

Source: Authors' estimation.
Significant at * and ** at 5 and 10 per cent level.

V. Conclusion

This study aimed to measure the impact of foreign direct, portfolio investment and other forms of capital inflows on domestic investment, especially private investment, in Pakistan. The results in the study confirmed a complementary relation between FDI and domestic investment and suggested that FDI significantly contribute to domestic investment, particularly private investment in Pakistan. The findings of the study confirm that FDI not only injects capital into the local market but also is a sign of credibility for local investors. FDI open new areas for local investment by bringing new ideas and taking the lead in risky ventures. Similarly, FDI also brings the latest technology and provide access to the international market; such moves of FDI encourage local investment.

Portfolio investment and loans are other forms of foreign capital inflows. Our findings report that portfolio investment and loans do not increase domestic investment in Pakistan. Domestic investment in Pakistan has always remained a big challenge for macroeconomic growth and development. Similarly, private investment remained confined to a few traditional areas, such as the retail and housing sector. Since the 1990s, Pakistan has introduced different policy measures to encourage local investment. In connection to boosting local investment and diversifying the investment portfolio of the private sector, this study suggests that more FDI inflows can stimulate private domestic investment in traditional and non-traditional areas, such as infrastructure and

energy sectors, in Pakistan. Against this backdrop, if properly utilized, FDI can play the role of a bulwark against instability and can play a role in long term economic growth in Pakistan.

Bibliography

Admas, S., 2009, Foreign direct investment, domestic investment, and economic growth in Sub-Saharan Africa, Journal of Policy Modeling, 31(6): 939-949.

Agosin, M., and R. Mayer, 2000, Foreign direct investment: Does it crowd in domestic investment?, Geneva: United Nations Conference on Trade and Development, Working paper, 146.

Ahmad, Mohsin Hasnain, Shaista Alam and Subihuddin Butt, 2003, Foreign direct investment, export, and domestic output in Pakistan, The Pakistan Development Review, 42(4):715-723.

Ahmad, Yamin S., Pietro Cova and Rodrigo Harrison, 2004, Foreign direct investment versus portfolio investment: A global games approach, University of Wisconsin, Working paper, 05-03.

Bhagwati, J. N., 2007, In defence of globalization, New York: Oxford University Press.

Blomstrom, M., A. Kokko and M. Zejan, 2000, Foreign direct investment: Firm and host countries strategies, MacMillan.

Bornschier, V., and C. Chase-Dunn, 1985, Transnational corporations and underdevelopment, New York: Praeger.

Bosworth, B., and S. Collins, 1999, Capital flows to developing economies: Implications for saving and investment, Brookings Papers on Economic Activity, (1): 143-169.

De Mello, L. R., 1999, Foreign direct investment – Led growth: Evidence from time series and panel data, Oxford Economic Papers, 51: 133–151.

Desai, M. A., C. F. Fritz, and J.R. Hines Jr., 2005, Foreign direct investment and the domestic capital stock, American Economic Journal Economic Policy, 92(2): 33-38.

Devereux, P. M., and H. Freeman, 1995, The impact of tax on foreign direct investment: Empirical evidence and the implication for tax integration schemes, International Tax and Public Finance, 2: 85-106.

Encarnation, D. J., and L. T. Wells. Jr, 1986, Competitive strategies in global industries: A view from host governments, in: M.E. Porter, (ed.), Competition in global industries, Boston: Harvard Business School Press.

Garretsen, H., and J. Peters, 2007, Capital mobility, agglomeration and corporate tax rates: Is the race to the bottom for real?, Economic Studies, 53(2): 263-275.

Goldstein, Itay, and Assaf Razin, 2003, An Information-based trade between foreign direct investment and foreign portfolio investment: Volatility, transparency, and welfare, NBER, Working Paper, 9426.

Hecht, Y., R. Assaf, and N. Shinar, 2002, Interactions between capital inflows and domestic investment: International panel data, Paper presented at the Pinhas Sapir Center Conference on FDI, Tel-Aviv University.

Keshava, S.R., 2008, The effect of FDI on India and Chinese economy: A comparative analysis, Proceedings of the Second Singapore International Conference on Finance, https://ssrn.com/abstract=1089964.

Kindleberger, C. P., 1969, American business abroad, New Haven: Yale University Press.

Kinda, T., 2008, Accroître les flux de capitaux privés vers les pays en développement: Le rôle des infrastructures physiques et financières, Paris: Colloque AFSE.

Kumar, N., and J. P. Pradhan, 2002, Foreign direct investment, externalities and economic growth in developing countries: Some empirical explorations, Background paper for Global Development Finance, World Bank.

Lim, D.W., 2001, Determinants of and the relation between FDI and growth: A summary of the recent literature, International Monetary Fund, Working paper,175.

Moosa, I.A., and B.A. Cardak, 2005, The determinants of foreign direct investment: An extreme bound analysis, Journal of Multinational Financial Management, 16: 199-211.

Mwilima, N., 2003, Foreign direct investment, Social observatory pilot project, Namibia: Labour Resource and Research Institute.

Naveed, Anjum and Ghulam Shabbir, 2006, Trade openness, FDI and economic growth, Pakistan Economic and Social Review, 94(1): 137-154.

Razin, A., and E. Sadka, 2002, Gains from FDI inflows with incomplete information, National Bureau of Economic Research, Working Paper, 9008.

Razin, Assaf,. 2002, FDI contribution to capital flows and investment in capacity, National Bureau of Economic Research, Working paper, 9204.

Shah, S. H., W. Ameer, and S. Delpachitra, 2020a, OFDI impact on private investment in the Gulf economies, Sustainability, 12: 4492, https://doi.org/10.3390/su12114492.

Shah, S.H., Hafsa Hasnat, C. Simon, and H.A. Mohsin, 2020, Sectoral FDI inflows and domestic investments in Pakistan, Journal of Policy Modeling, 42(1): 96-111.

Shah, S.H., Hafsa Hasnat and M.H. Ahmad, 2016, The effects of the human cost of terror on national income, private consumption and investment in Pakistan: An empirical analysis, South Asian Economic Journal, 17(2): 216-235.

UNCTAD, 2012, FDI/TNC Database, www.unctad.org/fdistatistics.