An Empirical Investigation on the Effect of FDI on Foreign Trade of Pakistan

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Abstract

The field of international economics is always enriched with huge literature related to trade and investment. But still with the passage of time, new business ventures and activities around the globe reshape the history as well as generate new aspects for present strategies and provide grounds for future prospective of trade and investment. Therefore international economics research not novel in particular but specific in situation, era, location and factors; make its evaluation a unique research. This study though not so unique in general literature, opens new debate for economic analysts in Pakistan with the country having a lot of fluctuations on the account of most of macroeconomic variables and is vulnerable to both political and economic uncertainties throughout its history. Trade and FDI in this modern globalized world are most significant elements of the economy which cannot be ignored while achieving and analyzing persistent economic development.
Keywords: Foreign Trade of Pakistan, FDI, ARDL Approach, Stability Analysis

1. Introduction

Foreign trade is very important to the economy of any country because of its need to import a variety of products. At the time of independence the economy of Pakistan completely relied on agricultural sector. Mostly Pakistan tended to export raw material like jute from East Pakistan and cotton from West Pakistan to India which consist of about 60% of the total exports of Pakistan and import manufactured consumer goods from India. In 1949 when Pakistan refuses to devalue its currency India suddenly refused to import from Pakistan. To overcome the demand problem Pakistan starts diversification of market and export its products to Germany, Italy, U.K., Belgium, and France. Pakistan is facing a chronicle deficit in balance of trade since decades. Imports have surpassed exports in almost every year since 1950 and thus, each year from FY 1973 through FY 1992, Pakistan had to face a deficit on its balance of trade.

Pakistan was trapped in a vicious cycle of deficit in balance of trade 1958. While in 1953-54 and 56 the foreign trade performance was rationally good. The average exports were 161 million US$ more than its imports and it had a surplus balance of trade up to 1956-57. After fifteen years of trade deficit in 1973 Pakistan had a favorable trade balance, yet that was the last year for the surplus trade balance in Pakistan. Since then Pakistan is facing a trend of deficit balance of trade and balance of payment. Its current account deficit was at record level of US$ -4575 million in 1996 claiming -4.96% of GDP and at its highest surplus in fiscal year 2003 with US$ 3,165million that is 4.77% of the GDP. On the other side , the situation was totally changed in fiscal year 2005 where the current account had a favorable position, while the trade deficit was at US$ -6,185 million that is -8.2% of GDP, the highest ever in the trade history of Pakistan (MPS, 2006). In 1971 separation of East Pakistan has greatly affected balance of trade. This dissertation covers the quantitative analysis of Pakistan, so the data is taken beyond 1971.

Among the challenging and complicated international economic conditions, the decelerating situation of the international trade, the decrease in global product prices, and nationally the severe energy crisis, the exports from Pakistan persisted greater by US$ 14.0 million during 2011-12 over the previous year and stood at $ 20,474 million. The growth of imports at 14.5 % continued almost similar as the corresponding period's growth in the previous period. Exports remained declining and imports continued to grow stressing the importance of external developments. Pakistan's exports growth would have been in much improved situation had there been stabilization in global predictions during the period. In 2011-12, workers' remittances grew by $ 1.83 billion over the last year.

Pakistan Bureau of Statistics reported the Balance of Trade in 2015, was a record trade deficit of 169621 PKR Million. Over all, from 1957 till 2015, the trade balance of Pakistan averaged -17710.85 PKR Million. In June 2003 trade balance reached all-time high of 6457 PKR Million and a record low of -215020.49 PKR Million in December 2011. One of the prime reason due to which Pakistan runs consistent trade deficits is great importations of energy. About forty percent of total export consists of fuel products, machinery and transport equipment constitute about eighteen percent and chemicals contribute almost sixteen percent to total imports. While cotton and knitwear share almost twenty-eight percent of total exports, bed wear, carpets and rugs makes about eight percent and rice contribute almost eight percent to the total exports for Pakistan. Direction of foreign trade is limited to few countries like ten percent of total exports and seventeen percent of imports are from United Arab Emirates and trade with China comprise 9% of exports and fifteen percent imports. Other foreign trading partners for Pakistan are United Kingdom, United States and Germany.

1.1. Significance and Contribution of the Study

Foreign trade is very important to the economy of any country because of its need to import a variety of products. At the time of independence the economy of Pakistan completely relied on agricultural sector. Mostly Pakistan tended to export raw material like jute from East Pakistan and cotton from West Pakistan to India which consist of about sixty percent of the total exports of Pakistan and import manufactured consumer goods from India. In 1949 when Pakistan refuses to devalue its currency India suddenly refused to import from Pakistan. To overcome the demand problem Pakistan starts diversification of market and export its products to Germany, Italy, U.K., Belgium, and France. Pakistan is facing a chronicle deficit in balance of trade since decades. Imports have surpassed exports in almost every year since 1950 and thus, each year from FY 1973 through FY 1992, Pakistan had to face a deficit on its balance of trade.

Due to significant geographical location, Pakistan has the potential to become important transit route between east and west due to its geographical location. In history this land was a center of commerce exchange and development of south Asia and central Asia. Pakistan shares borders to the north with china, Afghanistan and Iran to the West and India is on the East side, while the Arabian Sea offers to the South vast seashore for naval trade. Pakistan is a doorway to the markets of Iran, Afghanistan, the Central Asian Republics and the Middle East for many states of the world.

This study is an effort to identify the nature of the two key alternative techniques of global knowledge diffusion i.e. international trade and FDI by analyzing comprehensive theoretical framework. To provide empirical evidence of the relationship of these two global phenomenon econometric models has been developed with the help of some mutually significant macro economic variables. The main aim behind the empirical analysis is to estimate trade openness effect on the rate of international trade and FDI of Pakistan as well as to know the association between the two. This study will serve as a useful benchmark in literature for investigating the consequences of trade and investment liberalization in future.

This research study provides numerous avenues for the researcher, academia, government officials and macro mangers in view of how to manage the chronic situation of the balance of trade. As the persistent balance of trade deficit makes problem for the economy and this research study open the new avenue for the academia. This study is helpful for academia in order to solve the chronic situation of trade balance of in respect trend, direction and magnitude by improving international trade and FDI.

1.2. Objective of the Study

The main objectives of this research study are
1. To evaluate the inter-linkage relation between International Trade and FDI of Pakistan.
 2. To inspect influences of FDI on International Trade.
3. To observe the behavior of supporting variables of FDI toward International Trade of Pakistan.
4. To investigate relationship (long run or short run) among International Trade towards FDI.

2. Literature Review

Past literature is enriched with both theoretical and empirical researches on international trade and economic growth nexus, struggling to identify the importance of international trade with the help of defining different supplementary macro-economic variables in hypothesis and models. International trade influence overall economy through various dynamic channels such as industrial transformation, capital accumulation, organizational improvements, and technological advancements etc. More precisely, trade openness and high imports of capital goods that are scarce in local market results in higher manufacturing productivity (Lee and Ataullah, 2006).

on the other hand, international trade open the doors for higher competition from the world market and advanced technologies, which results in improved and higher quality production as well as higher exports. Both of these phenomenon can be attributed towards value and volume of commodities and higher levels of productivity (Wagner, 2007). International trade leads to improvement in per capita income of a relatively liberalized economy, as was evidenced by a report of the OECD (2003) supporting the statement by empirically showing 0.2% elasticity of international trade for per capita income.

Frankel and Romer (1999) has allocated geographical measures of trade and applied these measures for attaining instrumental variables through which he observed the impact of trade on income and concluded that trade has robust effect on increase in income with slight statistical significance. Edwards (1993) attempted to have a broad review of major elements affecting the association between economic growth and trade in developing economies, specially the issues with achieving credible strategies of trade policy and defining the most accurate channels that assists economic growth through trade liberalization. Vohra (2001) scrutinized the correlation between economic growth and balance of trade for five Asian countries India, Malaysia, Philippines, Thailand, and Pakistan from 1973 to 1993.

Findings of the research showed that as a particular level of economic development is attained by a country, than the exports have a positive and considerable impact on economic growth. Jordaan and Eita (2007) examined the causality by analyzing the hypothesis of growth led by export for Namibia from 1970 to 2005. The study investigates whether there is uni-directional or bi-

direction causality between GDP and exports. The results revealed that exports Granger cause GDP and GDP per capita and suggested that the export-led growth policy leads to favorable balance of trade through different inducements has positive influence on growth.

Aradhyula et al., (2007) in their study considered international trade as one of the key factor in achieving higher living standards. In this context the African Development Report (2012) can be quoted which res trade to be a robust tool of distributing gains of globalization among nations. Chen et al., (2010) argued that throughout past literature on trade and economic nexus, the relationship between these two has been ambiguous supported by a number of conflicting empirical and theoretical evidences, debating the role of different trade policies on economic growth. The conflict is mainly due to the phenomenon that the keeping other things constant, the impact of trade on economic growth is not obvious and hard to estimate due to unidentified and unspecified direction of causality between these two major macro economic variables (Ghartey, 1993; Shah et al., 2003).

Chatterji et al., (2013) argued that the direction of causality is ambiguous because economic developments also lead to trade liberalization in form of higher demand for imports as well as higher productivity in exports thus encouraging international trade. Trade and economic growth has been connected through different means and channels of different macroeconomic variables by economic analysts, for instance trade's impact on national income by means of utilization of large scale economies, through comparative advantages of specialization, organizational skills, enhanced productivity through exploration of new technology embodied in tradable goods and services. A wide theoretical background has been published and proven on trade and growth nexus (Lee & Huang, 2012; Chatterji, Mohan & Dastidar, 2013; Steiner, Worz, & Slacík, 2014).

Liberalized exchange policies might lead to higher opportunities of investment which in turn promote competition and therefore economic development with the use of more productive technologies. Feasible environment for foreign direct investment and international trade is the most apprehending factor in increasing investment of products embodied with new productive and efficient technologies. But trade advantages vary in different situations depending upon the nature, techniques and characteristics of the commodity produced and exported besides the implementation of domestic and foreign economic policies.

Liu et al., (2002), Zhang (2009) and Lardy (2003) had inquired about the Chinese foreign direct investment and trade balance. The review demonstrated significant effects of FDI on the increase of exports and economic development. For this purpose they used panel data from 1987-1999 and applied Pooled least square approach to derive empirical findings. Tse et al., (1997) found that there is positive relationship between regional and provincial production, exports expansion and FDI, especially in coastal locale and central region of China.

Qayyum and Mahmood (2013) investigated the causality between FDI and foreign trade for Pakistan and its eight major trading partners for yearly data from 1985 to 2010. To check whether the two variables were substitute or complements VECM and Johansen Fisher Panel co-integration was applied. Their result supported that case of Pakistan; FDI encourages trade with its major trading partners.

At last, global trade prompts to vigorous organizational reforms. Global trade encourages exchanging of merchandise, services and enterprises, as well as thoughts on market components. Emerging economies are figuring out how to apply market control all the more productively with less arbitration from government to increase liberalization and openness of the economy. Particularly in mutual multilateral and bilateral trade, members ought to satisfy their responsibilities to universal guidelines and directions to cross over any barrier among economies.

3. Methodology (Developing the econometric model)

The present study examines the data for FDI and Trade liberalization of Pakistan to finds out the inter-linkage between FDI and Foreign Trade. It also encompasses an empirical analysis of FDI and liberalization of trade as well as the nature of their relationship either they have effect for each other in case of Pakistan covering the time period 1985-2016.

In order to observe the dynamic association with diverse levels of analysis and to gain more insight into the nature of spillovers that associates bilateral trade and FDI flows in a common nomenclature, dynamic econometric model will be applied for the observed data. The bilateral dimensions make it possible to manage common determinants of trade and FDI. This will be done by estimating two bilateral models developed for FDI and Foreign Trade.

FDI from non-traditional channels is seeking a lot of attention recently, especially in developing host countries by investment Promotion organization which can be more beneficial for economic growth and further FDI. On contrary, international trade or trade liberalization consists of the policies that are implemented by the nations to make the economy more open for foreign trade to attain rapid economic growth by rising exports and thus foreign reserves therefore act as "engine of economic growth".

To go with the relevant theory and empirically analyze the relationship between FDI and trade liberalization of Pakistan the Bound testing approach will be applied to test the assumed objective and hypothesis of the study. The dynamic econometric model with auto-regressive variable is constructed and will be regressed through Auto-regressive Distributed lag (ARDL) approach. The fundamental idea for making the econometric model for this research study were taken from the studies of (Moulton, 1986; Tenreyro et al., 2006; Mehlum et al., 2006; Kolstad, 2009; and Burger et al., 2009) with slight amendments in formulating of the above studied model for this research study.

$$X_{it} = \beta_0 + \beta_1 X_t + \beta_2 C_t + \beta_3 D_t + \beta_4 S_t \qquad (3.1)$$

In the above equation (3.1) X_i is the two main inter-link variables (FDI and Foreign Trade), "X_t" is the basic variables, "C_t" is the characteristics Variables, "D_t" is the dummy or proxy variables and "S_t" is the specification variables.

3.1 Data analysis and Sources

The present study is conducting to empirically analyze the relationship between Foreign Direct Investment (FDI) and Trade Liberalization or Foreign Trade of Pakistan based on annual time series data from 1980-2016. The data will be collected from different sources including Economic Survey of Pakistan, State Bank of Pakistan (SBP), Ministry of Investment and Privatization of Pakistan, World Economic Indicator, World Development Index (WDI), The Global Economy, Pakistan Bureau of Statistics, and other reports and sources.

3.2 Regression Analysis of the effect of FDI on International Trade in Pakistan

Theoretical and empirical framework of International Trade gives a significant foundation to establish and investigate link between FDI and trade liberalization. The key purpose of this study is to examine and discover the correlation among trade liberalization and FDI in Pakistan. Theoretically trade liberalization has positive effects on FDI and vice versa, however there are debates among economists regarding the time interval needed for absolute affect of Trade Liberalization and the nature of trade either it is substitutes or complementary to FDI. Whereas empirical literature examined that there is a robust positive relationship between trade liberalization and FDI particularly in the fast growing nations.

For the second empirical model the study uses International Trade growth as dependent variable and foreign direct investment (FDI), exports(X), per capita income (PCI), exchange rate (ER), trade openness (TOP), tariffs (TRF) and technology (Tech) as independent variables to regress their role on FDI in Pakistan. To demonstrate the empirical relationship between explanatory variables and FDI growth, the theoretical model can be expressed as;

$$IT = f (FDI, X, PCI, Exr, TOP, TRF, Tech)\dots\dots\dots\dots\dots\dots\dots (3.4)$$

The econometric model to empirically regress the impact of international trade can be written as

$$IT_t = \beta_0 + \beta_1 FDI_t + \beta_2 X_t + \beta_3 PCI_t + \beta_4 Exr_t + \beta_5 TOP_t + \beta_6 TRF_t + \beta_7 Tech_t + \mu_t \quad (3.5)$$

The expected sign of the co-efficient will be;

$\beta_1 > 0, \beta2 > 0, \beta_3 > 0, \beta_4 < 0, \beta_5 > 0, \beta_6 < 0, \beta_7 > 0$

3.2.1 Pre-Testing of Data

Table (3-1) shows results for unit root analysis obtained by applying Augmented Dickey Fuller test for stationarity. The key findings shows that foreign trade, FDI, exports, Per capita income, terms of trade, and technology all are stationary at first difference while trade openness, exchange rate and tariff are stationary at level.

Table 3-1 Unit Root Test Results

Variables	Acronyms	ADF Values		ADF Critical Values
		At Level	At 1st Difference	
International Trade	FT	-0.414939	-4.297434*	-2.945842
Foreign Direct Investment	FDI	-2.527314	-5.275425*	-2.948404
Exports	X	-1.948736	-3.790615*	-2.951125
Per Capita Income	PCI	-1.913247	-3.957556*	-2.948404
Exchange Rate	ER	-3.453769*	-4.370893*	2.960411
Trade Openness	TOP	-4.583588*	-5.093162*	-2.945842
Terms of Trade	TOT	-1.538397	-5.443426*	-2.948404
Tariffs	TRF	-3.169468*	-5.643765*	-2.957110
Technology	Tech	-1.292453	-3.303092*	-2.945842

3.2.2 Regression Analysis of the Model 2

Table (3-2) engenders ARDL regression short run results for foreign trade being regressed by FDI and other aforementioned supporting macro economic variables. The empirical results revealed that 1% change in FDI of Pakistan will bring about 34% increase in overall foreign trade of Pakistan, coinciding with theory, supported by both sign of the coefficient and significant probability value(0.05) at 5% critical value.

Being a crucial constituent of foreign trade exports have quite an influence on foreign trade in various countries varying region to region and nature of the exports, having generally positive impact on foreign trade as a whole which also can be seen from this empirical study i.e., with an increase of one percent in rate of exports foreign trade of Pakistan observe 25% increment which go with the theory with a significant probability value. The per capita income also has an about 14% affirmative impact on foreign trade enhancement with a significant probability value of 0.01.

In short run Exchange rate shows a highly significant negative impact on foreign trade consistent with past empirical findings and economic theory, causing about 21% decline in foreign trade by a single unit increase in exchange rate at 1% significance of p-value=0.06. As far as trade openness is concerned it revealed insignificant effect on the FT with coefficient value showing (0.053844) with p-value= 0.51 Trade openness in general economic theory is quite controversial however it depends on the pattern and nature of trade of various economies. For developed and emerging economies open trade and trade liberalization works as a catalyst to earn more benefits and foreign reserves with free exploration of international market due to their specialization and more advanced technologies. However in less developed countries it works in opposite direction, as TOP expose such economies to advanced competition which reduce even their share of domestic market due to open and free access of more economical and quality imports. In case of Pakistan it can be accepted to be true as it imports and exports usually primary products which are quite exposed to high competition in international market. This might be possible reason as most of the less developed countries offer cheap primary products while only few developed countries has the monopolistic command over the production and distribution of final products. Therefore the vow of fruitful free trade policy usually is in favor of developed countries.

The results show that tariff has a significantly weak negative effect on foreign trade of Pakistan which is consistent with theory. Empirical results shows that one percent increase in tariff will cause 01% decrease (-0.012004) in foreign trade with p-value=0.0630 significant at 10% critical value.

As expected and as theory suggests technology must have great contribution in any field of economic development, the model also support a significant positive role of technology on FT. As

current model reveals a single unit increase in Technology rises about 31% of FT with a significant p-value=0.00.

Error correction term (ECT) shows the speed of adjustment towards equilibrium and it depicts that in long run relationship runs from FDI and other supporting macroeconomic variables towards foreign trade, or simply the model will adjust FT to its equilibrium or desired level at the speed of 31% (-0.371490) at 10% significance (p-value=0.07). The coefficient of ETC must have to be negative for its significance of the model.

Table 3-2 Regression Results of the Variables (FT as Dependent Variable)

Variables	Acronyms	Coefficient	Std. Error	t-Statistic	Prob.
Constant	C	0.483953	0.231673	2.349242**	0.0274
Foreign Direct Investment	FDI	0.339731	0.161413	2.104739**	0.0515
Exports	X	0.255532	0.078457	3.256970*	0.0033
Per Capita Income	PCI	0.137685	0.051267	2.685672**	0.0129
Exchange Rate	ER	-0.213174	0.105821	-2.014471***	0.0611
Trade Openness	TOP	0.053844	0.079940	0.673551	0.5102
Tariffs	TRF	-0.012004	0.006157	-1.949529***	0.0630
Technology	Tech	0.388669	0.112611	3.451418*	0.0021
Error Correction Term	ECT	0.310701	0.164202	1.892183***	0.0738
Lag of IT	D{IT$_{(-1)}$}	0.230707	0.072209	3.195002*	0.0039
R-squared	0.977526		**Durbin-Watson stat**		1.907666
Adjusted R-squared	0.956701		**Prob(F-statistic)**		0.000000

(*), (**) & (***) shows significance at 1%, 5% & 10% respectively.

3.2.3 ARDL Co-integrating and Long Run Form

The ARDL co-integration and long form approach is also applied and the results in table (3-3) shows that there is strong co-integration between FDI, exports of Pakistan, exchange rate and technology spill over as well as long run relation between these variables.

Table 3-3 ARDL Co-integrating and Long Run Form

Variables	ARDL Co-integration			ARDL Long-form Coefficients		
	Coefficient	t-statistics	Probability	Coefficient	t-statistics	Probability
DLOG(FDI)	0.284757	2.273894	0.0322	0.270415	4.470276	0.0002
DLOG(X)	0.255532	3.256970	0.0033	0.332164	3.067392	0.0053
DLOG(PCI)	0.137685	2.685672	0.0129	0.178976	2.865452	0.0085
D(ER)	-0.004264	-1.738683	0.0949	-0.005543	-1.767213	0.0899
D(TOP)	0.006815	1.532462	0.1385	0.020070	0.747348	0.4621
D(TRF)	0.012004	1.949529	0.0630	0.015604	1.928800	0.0657
DLOG(TECH)	0.388669	3.451418	0.0021	0.505229	3.789102	0.0009
CointEq(-1)	-0.769293	-10.653758	0.0000	---	---	---

3.2.4 ARDL Bounds Test

To verify the long run correlation among variables incorporated in the model the Bounds test is used. The results integrated in table (3-4) indicates that the bound testing approach supports the existence of long run relation among foreign trade, FDI and different determinants of trade in Pakistan for the period of 1980-2016.

Table 3-4 ARDL Bounds Test (Null Hypothesis: No long-run relationships exist)

Bounds Test Value		Critical Value Bounds	
Test Statistic	Value	I0 Bound	I1 Bound
F-statistic	4.868625*	2.32	3.5

Critical Value is selected at 5% significance level. (*) Shows rejection of null hypothesis

The WALD test is also applied and results given in table (3-5) shows consistent results with bounds testing approach confirms the long run relation between dependent and independent variables of model of this dissertation study.

Table 3-5 Wald Test Results

	Value	Probability
F-statistic	1209.466*	0.0000
Obs*R-squared	9675.728*	0.0000

(*) Shows rejection of null hypothesis

3.2.5 Diagnostic and Stability Analysis of Model 2

Here Breusch-Godfrey Serial Correlation LM Test is applied to model for assurance of no serial correlation and significance of the model-2. Key findings of the test are given bellow in table (3-6) which shows no auto-correlation, serial correlation and spurious relationship among the coefficients of the model.

Table 3-6 Breusch-Godfrey Serial Correlation LM Test Results

	Value	Probability
F-statistic	0.005281*	0.9427
Obs*R-squared	0.005281*	0.9306

(*) Shows rejection of null hypothesis

Breusch-Pagan-Godfrey Heteroskedasticity test depicts a normal distribution of the variation among variables therefore confirm no heteroskedasticity in the model. Key findings of the test can be found in table (3-7).

Table 3-7 Heteroskedasticity Test: Breusch-Pagan-Godfrey

	Value	Probability
F-statistic	1.340373*	0.2718
Obs*R-squared	10.19090*	0.2519

(*) Shows rejection of null hypothesis

To analyze the specification biasness and stability of the model-2 the Ramsey RESET test is applied. The results depicted in table (3-8) reveals and signify the stability of the model. Moreover it indicates there is no issue of miss-specification and variables incorporated in the model are appropriate.

Table 3-8 Ramsey RESET Stability Test

	Value	Probability
F-statistic	1.133247*	0.2812
Obs*R-squared	1.284248*	0.2812

(*) Shows rejection of null hypothesis

4. Conclusion

FDI is considered to be an essential catalyst for trade liberalization and economic growth in both developing as well as developed countries. It influences the economic growth in the host countries by encouraging internal investment, assisting the transmission of technology and increase human capital development. It accomplishes the needs that used to be fulfilled by trade. From the past several-decades countries around the world are struggling to attract foreign investors for filling their capital, skills and technological gaps and consequently FDI had grown at least twice as rapidly as trade (Marelli and Signorelli, 2011; and Aqeel et al., 2004).

In general Trade and FDI has been connected in a complementary connection, though the concept of FDI was to entertain business activities in areas where it was impossible or hard to trade for inputs embodied in host countries or output to be sold abroad to gain higher profits of its specialization. Somehow the initiation of FDI seems to be a substitution for trade but with the development of FDI and globalization it turnout to be facilitator and complementary element to each other. Usually a multinational company needs to import some capital goods for its flawless production in host country where as some other MNC specialize in a product with the help of domestic labor and resources and exports its output to rest of the world from host country. On the other hand, to encourage and improve export industry, FDI brings innovative technology and bring value added phenomena to domestic tradable merchandize.

This study is an attempt to thoroughly analyze these two crucial modes of resource and knowledge diffusion for Pakistan by empirical analysis of foreign trade and FDI from 1980-2016. ARDL approach is utilized for the statistical analysis with support of various techniques applied to foreign trade of Pakistan being dependent variables in econometric models. To check the stationarity and level of integration of the variables Augmented Dicky-Fuller unit root test is applied, resulting in conformity of level and first order co-integration therefore confirming their suitability for ARDL model. To attain the nature of long term and short term association and co-integration equation between dependent and independent variables, the Bound testing approach, Wald test are applied, ARDL co-integration approach. The empirical result indicates positive and complementary effect of trade and FDI on each other, with empirical findings revealing 1% change in FDI about 34% increase will occur in overall foreign trade of Pakistan. The model will adjust FT to its equilibrium or desired level at the speed of 31%. Various diagnostic and stability tests namely, Breusch-Godfrey serial LM test to check serial and auto-correlation, Ramsey RESET test for model specification, Breusch-Pagan-Godfrey test for heteroskedasticity are applied to confirm the consistency, reliability, and acceptability of the derived model. It would be factual statement to state that both FDI and foreign trade are the modern day necessities. Hence this dissertation attempts to evaluate the two most important multipliers of the economic development.

References

[1] K. Abe , and M. A. Chaudhary (1999). Pakistan Economy: Past Trend, Current Situation and Future Prospects. Economic Journal of the Chiba University, Chiba, Japan.

[2] B. K. Adhikary, (2012). Impact of Foreign Direct Investment, Trade Openness, Domestic Demand, and Exchange Rate on the Export Performance of Bangladesh: A VECM Approach. Economics Research International, 2012.

[3] D. K. Agbetsiafa,(2010). Regional integration, trade openness, and economic growth: Causality evidence from UEMOA countries. International Business and Economics Research Journal, 9(10).

[4] A. Aqeel , M. Nishat , & F. Bilquees, (2004). The Determinants of Foreign Direct Investment in Pakistan [with Comments]. The Pakistan Development Review, 651-664.

[5] M. Burger, O. Frank van , and Gert-Jan, L. (2009). On the Specification of the Gravity Model of Trade: Zeros, Excess Zeros and Zero-Inflated Estimation. Spatial Economic Analysis, 4(2), 167-190.

[6] C. Chakraborty , and P. Basu, (2002). Foreign Direct Investment and Growth in India: A Co-integration Approach. Applied Economics 34 (1), 1061-1073.

[7] Z. Chen , Y. Li , and C. San, (2010). Research on the Relationship between Foreign Trade and the GDP Growth of East China—Empirical Analysis Based on Causality. Modern Economy, 1(1), 118-124.

[8] S. Edwards, (1993). Openness, Trade liberalization, and Growth in Developing Countries. Journal of Economic Literature, 31(1), 358-393.

[9] A. J. Frankel, and D. Romer,(1999). Does Trade Cause Growth. American Economic Review, 89(3), 379-399.

[10] A.C. Jordaan, and J. H. Eita, (2007). Export and Economic Growth in Namibia: A Granger Causality Analysis. South African Journal of Economics, 75(3), 540–547.

[11] I. Kolstad,(2009). The resource curse: Which institutions matter? Applied Economics Letters, 16 (4), 439-442

[12] N. R.Lardy, (2003). Trade Liberalization and Its Role in Chinese Economic Growth. Institute for International Economics, International Monetary Fund, Washington, D.C, 2003.

[13] M. H. Lee, and A. Ataullah, (2006). Foreign Capital and Economic Performance of Pakistan. The Lahore Journal of Economics. 7(1), 1– 32.

[14] M. H. Lee, and A.Huang, (2012). Foreign Capital and Economic Performance of Pakistan. The Lahore Journal of Economics. 7(1), 1– 32.

[15] X. Liu, P. Burridge, and P. J. Sinclair, (2002). Relationships between economic growth, foreign direct investment and trade: evidence from China. Applied Economics, 34(11), 1433-1440.

[16] E. Marelli, and M. Signorelli, (2011). China and India: Openness, Trade and Effects on Economic Growth. The European Journal of Comparative Economics, 8(1), 129-154.

[17] H. Mehlum, K. Moene, and R.Torvik, (2006).“Institutions and the Resource Curse. The Economic Journal, 116, 1-20

[18] B. R. Moulton, (1986). Random Group Effects and the Precision of Regression Estimates. Journal of Econometrics 32 (3), 385-397

[19] OECD, (2000). Benchmark, "Definition of Foreign Direct Investment", third Edition.

[20] U. Qayyum , and Z. Mahmood, (2013). Inter-linkage between Foreign Direct Investment and Foreign Trade in Pakistan: Are they Complements or Substitute? (No. 2013: 91). Pakistan Institute of Development Economics.

[21] Z. Shah, Q. M.Ahmed, and R. Siddiqui, (2003). The Determinants of Foreign Direct Investment in Pakistan: an Empirical Investigation [with Comments]. The Pakistan Development Review, 697-714.

[22] L. J. Trevino, and K. P. Upadhyaya,(2006). Foreign aid, FDI and economic growth: Evidence from Asian countries. Transnational Corporations, 12 (2), 119-135.

[23] D.K. Tse, Y.Pan, and K.Y.Au, (1997). How MNCs choose Entry modes and Form Alliances: The China Experience. Journal of International Business Studies, 28(4), 779-805

[24] R.Vohra , (2001). Export and Economic Growth: Further Time Series Evidence from Less-Developed Countries. International Advances in Economic Research, 7(3), 345-50.

[25] J. Wagner, (2007). Exports and Success in German Manufacturing. Welt wirts chaftliches Archiv, Springer-Verlag , 133(1), 134–157.

[26] Y. Zhang, (2009). A Different Look at Inward FDI into Mainland China. United Nations Univ., Maastricht Economic and social Research and training centre on Innovation and Technology

تحقيق تجريبي حول تأثير الاستثمار الأجنبي المباشر على التجارة الخارجية لباكستان

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الملخص:

يتم إثراء مجال الاقتصاد الدولي دائماً بأدب ضخم يتعلق بالتجارة والاستثمار. ولكن مع مرور الوقت فإن المشاريع التجارية والأنشطة الجديدة في جميع أنحاء العالم تُعيد تشكيل التاريخ، فضلاً عن توليد جوانب جديدة للاستراتيجيات الحالية وتوفير أسباب لمستقبل التجارة والاستثمار. وقد فتحت هذه الدراسة نقاشاً جديداً للمحللين الاقتصاديين في باكستان وخاصة أن لديها الكثير من التقلبات على حساب معظم متغيرات الاقتصاد الكلي، وتم التعرض لعدم اليقين السياسي والاقتصادي على مدار تاريخها، والتجارة والاستثمار الأجنبي المباشر في هذا العالم المعولم الحديث هما عنصران هامان في الاقتصاد لا يمكن تجاهلهما في الوقت الذي يتم فيه تحقيق وتحليل التنمية الاقتصادية المستمرة.

الكلمات المفتاحية: التجارة الخارجية لباكستان، الاستثمار الأجنبي المباشر، طريقة ARDL، تحليل الاستقرار