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DID THE WTO PROMOTE GROWTH, TRADE AND FOREIGN DIRECT INVESTMENT IN SOUTH ASIA?

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Abstract

Many developing countries joined the WTO with the hope that using the platform will boost trade and thus will catch-up on the developed countries. South Asian countries were the founding member of the WTO and there were great expectations from the WTO in the region. Therefore, it is important to check whether joining the WTO has any impact on trade in South Asia or not? Using fixed effect simultaneous equation model in this paper, we examined the impact of the WTO on key macro-economic variables, i.e., export, import, FDI and growth in South Asia. Based on the empirical evidence, the paper concludes that the impact of joining the WTO on key macroeconomic variables in South Asia is not up to the mark. Joining the WTO did not contribute to any of the main macroeconomic variables of the region, i.e., imports, GDP and FDI. Interesting, the WTO did not play any role in promoting exports in the region either. This shows that the WTO membership is not a guarantee for economic success. The findings of the paper also suggest that rather than relying on an organization erected to support the policy initiative of developed countries, such as the WTO, the developing countries in South Asia need well designed reforms at home to boost their economic performance and promote trade.

Keywords: WTO, Growth, Trade, FDI Inflows, Panel Estimation.
JEL Classification: F13, F21.

I. Introduction

Liberal economists consider that dismantling trade barriers and the introduction of open trade regime around the globe can effectively address the vital question of the efficient allocation of scarce resources in economics [Bhagwati (1978), Fuller (2003), Mankew (2006)]. The proponents of openness hypothesis and supporters of free trade consider that reducing the trade barriers and dismantling fractions in cross border promote not only trade but also investment across the borders and thus, pave the way for rapid development in the economy [Sen (2001)]. The creation of the WTO[1], a multi-

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[1] The WTO, a multilateral trading system, has two main tasks: managing rules to guide world trade and providing platform for negotiation, formalization and implementation of binding and non-binding agreements ratified by member states. Using the WTO platform, member states bridge the gap on important trade issues like tariff and non-tariff trade barriers through MFN (Most Favored Nation) and DSM (Dispute Settlement Mechanism) etc., and helps standardize rules and procedures in dealing amicably with trade related issues.

lateral institutional arrangement triggered widespread reforms in many aspirant countries. The WTO was supposed to play the role of catalyst in promoting trade and investment across the globe [WTO (1998)]. The WTO was also responsible for providing a forum for negotiations among member countries and at the same time was also required to ensure the proper functioning of a dispute settlement mechanism [Devuyst and Serdarevic (2007)]. These functions of the WTO greatly increased trust among the member states.

A part of empirical literature supports the theoretical underpinnings that the WTO promotes trade and increases the flow of investment [Iwanow and Kirkpatrick (2009), Linda and Tuan (2003)]; however, Subramanian and Wei (2006) argue that the positive role of the WTO cannot be generalized for every sector and all the countries across the globe. Some empirical studies suggest that WTO inflict welfare loss on the member states and tilt trade in favor of the developed countries [Rose (2004a)], while other cast doubts in the existing structure of the WTO and suggests that the WTO could have played better role in the promotion of trade and investment if the rich countries would have opened economic sectors like textile and agriculture [Stern (2000)]. A study by Fair Trade Foundation in 2010 explored that the US$. 47 bn in subsidies paid to developed country cotton producers from 2000 to 2009 created barriers for the 15 million cotton farmers across West Africa to escape poverty traps. The same study claims that the US$. 47 bn subsidy in over a decade from 2000 to 2009 forced 5 million of the world's poorest farming families out of business and dragged them to poverty[2]. The WTO also received criticism for 'one size fits all' modality that can possibly hamper the process of development in a diverse group of countries [Steinberg (2004)]. It is becoming increasingly evident that the WTO has been proved beneficial for a few countries, but it also holds ground that some countries and regions have yet to adapt themselves to the concept of integration. The cost of half baked reforms in such countries can outweigh the benefits of the WTO rules [Low (2004) and World Bank (2002), (2004)]. Some studies consider that the WTO is a rich country club and it is very difficult for developing countries to use it for economic progress and development [Jansen (2010)].

South Asia, a region that lags behind both in international trade and attracting foreign investment, attached great importance to the WTO[3] for promoting trade and investment and exploring new markets. Therefore, joining the WTO could serve the purpose of putting the South Asian countries on the path of development. However, easy access to the international market and an increase in exports and development just by joining the WTO has no linear relation nor joining the WTO can assure the rapid flows and spill-over effect of foreign investment, especially when the process of globalization is in favor of rich countries. The benefits from the WTO can be realized

[2] https://www.theguardian.com/global-development/poverty-matters/2011/nov/14/wto-fails-developing-countries.

[3] Although many South Asian countries were part of GATT, however, there is difference in GATT and WTO. The WTO is a rule binding co-operative agreement that equally applies to all member states.

when the rules of the WTO are implemented by the member states, along with serious efforts in facilitating trade and promoting competitiveness locally [Arnold (2007)]. Therefore, in this paper, we analyze the impact of joining the WTO as well as of trade facilitation and doing business in light of entry to the WTO on trade and investment in South Asian countries. Furthermore, we analyze how trade facilitation and doing business under the WTO auspices affect growth and trade of countries in South Asian region before and after joining the WTO.

We consider that such an analysis is interesting for three reasons. Firstly, South Asian countries played an active role in build-up of the WTO they relied heavily on the WTO membership for bringing improvement in macroeconomic indicators for the last two decades. However, despite the fact that South Asian countries contribute 23 per cent to the world population[4], still their combined share in World Trade is little more than 2.5 per cent while their share in incoming FDI is less than 2 per cent of World total FDI. Secondly, contrary to the expectations, growth remained dismally low in the region despite South Asian countries active participation in the WTO and their introduction of required reforms. Thirdly, South Asian countries are willing to trade with other courtiers, but they are reluctant to trade among themselves. Therefore, it is important to see whether trade facilitation and doing business along with joining the WTO brought any change to the pattern of trade among the South Asian countries or not.

The rest of the paper is planned as: Section II discusses the WTO induced reforms and the trend of trade and investment in South Asia. Section III discusses the literature review, Section IV deals with methodology and data; Section V consists of results and analysis, while Section VI provides a conclusion.

II. Trade, Investment and Growth in South Asia before and after the WTO

Intra regional trade in South Asia, especially through formal channels, remains abysmally low. Currently, the inter South Asian trade is around 2 per cent of their total trade. Although a large part of the low inter regional trade problem is related to a high level of formal trade barriers, deteriorated infrastructure and the political unwillingness to liberalize interregional trade, a number of other issues including market connectivity, trade complementarities and border disputes also play a critical role in keeping inter-South Asian trade low. The following sections of this paper present the broad issue of trade facilitation in the South Asian context.

As discussed earlier, South Asia is a huge market in terms of population, it consists of 23 per cent of the world's population[5]; however, its share in World Trade is little more than 2 per cent and its contribution to world GDP is mere 3 per cent. South Asian countries are the founding members of the WTO and they were the members of GATT. However, because of a binding agreement and global outreach of the WTO, the effect

[4] Data is collected from the census of respective countries.

[5] Data is collected from the census of respective countries.

of WTO cannot be mixed with GATT or other multilateral agreements. Therefore, most of the South Asian countries expect that WTO will contribute to their economic development by boosting trade and investment. The graphical representation shows the role of GDP, imports, exports and FDI before and after joining the WTO with India, Pakistan, Bangladesh and Sri-Lanka. It is very obvious from Figure 1 to 4 that growth, trade and FDI in four countries increased significantly, but only after 2000 more than five years of joining the WTO. Perhaps member states used this lag period to get adjusted to the new rules of the game.

Figures 1 to 4 show trade, GDP and FDI inflows in India, Pakistan, Bangladesh and Sri-Lanka, respectively. Figure 1 shows that GDP in India started rising after joining the WTO in 1995; however, it took a lag of five years (after joining the WTO) for trade and FDI to take a pace from 2000 onward inflow of FDI in India increased rapidly; however, trade maintained a slow growth. The case of GDP and FDI in Pakistan was not different (Figure 2) than the case of FDI inflows to India (see Figure 1)[6]; however, trade in Pakistan did not show a promising increase. Rather the trade in Pakistan remained low despite Pakistan's entry into the WTO.

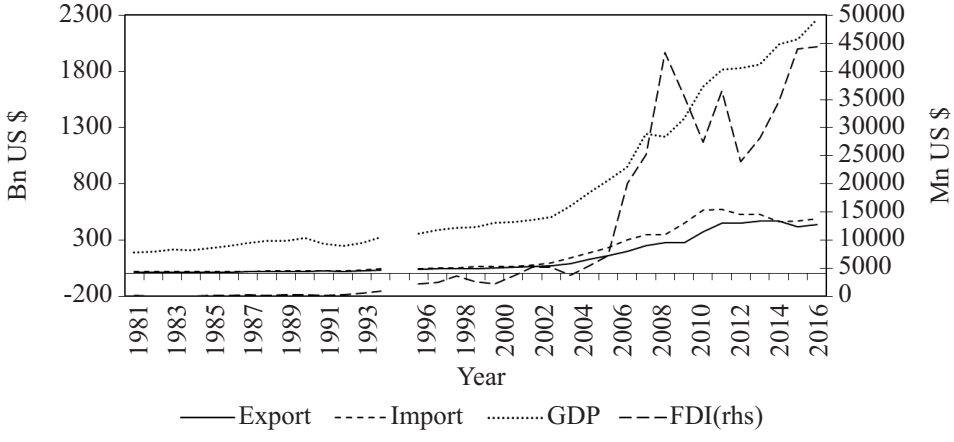

FIGURE 1

GDP, Trade and FDI in India before and after the WTO

GDP, trade and FDI in Bangladesh (Figure 3) and Sri Lanka (Figure 4) did not show any sign of increase just after joining the WTO. GDP, trade and FDI inflows in Bangladesh and Sri-Lanka showed significant signs after the 2008 financial crisis. This finding, while it is very interesting when we keep in mind that GDP, trade and FDI inflows in many countries decreased after the 2007-08 financial crisis.

[6] The data of 1995 in the figures are deliberately removed in order to isolate the before and after effect of the WTO.

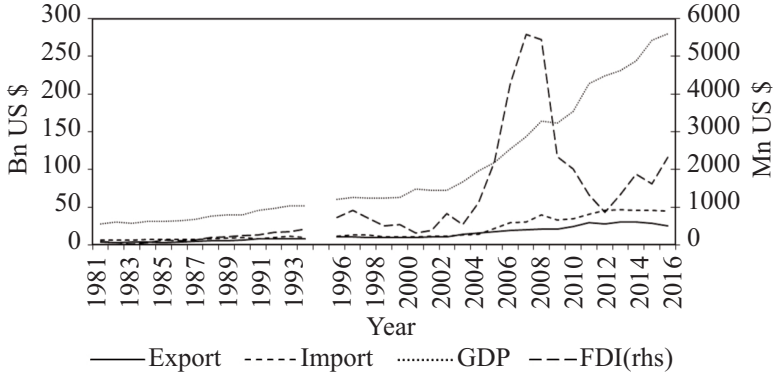

FIGURE 2

GDP, Trade and FDI in Pakistan before and after the WTO

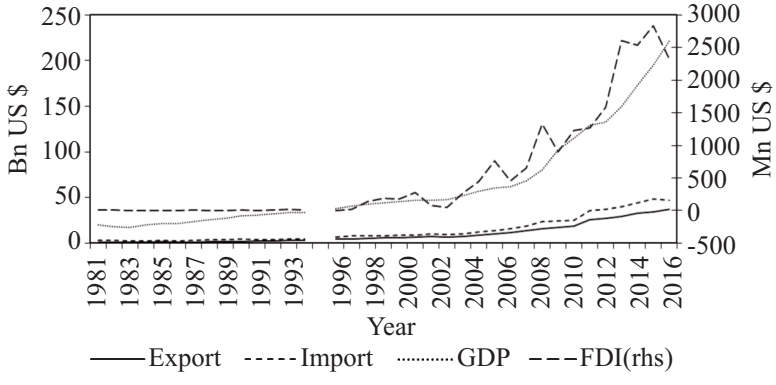

FIGURE 3

GDP, Trade and FDI in Bangladesh before and after the WTO

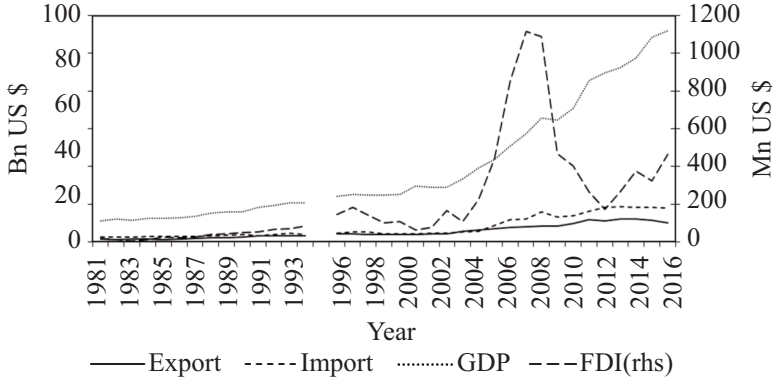

FIGURE 4

GDP, Trade and FDI in Sri Lanka before and after the WTO

III. Literature Review

The history of free trade can be traced back to the absolute advantage theory of Adam Smith. He suggested that free trade increases the efficient allocation of resources and enhances the welfare of participant countries. Ricardo built his case on the absolute advantage theory and later, Haberler (1950) argued that opportunity based comparative advantage theory better explains trade and its impact on the partner countries. Subsequent theories rigorously used the concepts of Ricardo and tried to avoid 'beggar thy neighbor' policies. The growing trade barrier remained a big hurdle in reaping the benefits of free trade. This non-cooperative trade policy kept countries on hold to develop rapidly and imposed negative externalities on them. The purpose of WTO was to find a solution to non-cooperative trade policies and turn negative externalities into positive.

This theoretical perspective of the WTO suggests that it is difficult for a government to liberalize unilaterally mainly to avoid the terms-of-trade loss. However, reciprocal liberalization solves this issue. Reciprocity removes trade barriers and ensures the partners, countries to maintain their respective terms of trade. Reciprocity also controls 'cheating' in trade agreement. Therefore, binding agreements under the WTO is supposed to reduce trade barriers and address the problem of tariff's 'prisoner dilemma' [Bagwell and Staiger (1999), (2002)].

WTO accession affects economic growth in different ways. A report by the World Bank and WTO (2015), suggests that the WTO promotes economic growth in developing countries by increasing resource allocation, enhancing comparative advantage and expanding the economies of scale of a member state. The WTO induced reforms also affect the return on investment and give firms access to inputs which are unavailable domestically. This helps them boost productivity and comparative advantage [World Bank and World Trade Organization (2015)]. The WTO not only is supposed to enhance trade and investment directly but accession to the WTO also paves the way for predictable policymaking. Tang and Wei (2009) argue that, besides the direct effects of trade liberalization on trade, other commitment after signing to the WTO strongly affects economic growth. The effect of the WTO on economic growth is long lasting compared to the effects of unilateral domestic reforms mainly because joining the WTO has a much higher cost of reversal than domestic policies. They also find that the policy commitments through the WTO accession are more beneficial in countries with weak governance because in such countries the external policy commitments may serve as a good substitute for governance in promoting economic development [Tang and Wei (2009)].

Theoretically, it is considered that WTO will encourage cross border trade by reducing tariff and increasing policy coordination. Subramanian and Wei (2006) using import data confirmed that imports in developing member countries increased many folds compared to developed members and non-member states after joining the WTO.

However, Rose (2004b), (2005), working on overall trade data rather than import data, studied the impact of WTO accessions on the trade of member states and concluded that WTO membership does not affect trade. This shows that WTO contribution to trade cannot be generalized.

A wide range of studies support positive impact of the WTO on trade among them, the prominent studies include Milthorp (1997), Mutti, et al. (2000). Liu (2009) has discussed trade promotion as well as trade creation role of the WTO and confirmed that WTO increased trade among member states by 60 per cent while trade among member and non-member states increased by 23 per cent. Tomz, et al. (2007) also tried to measure GATT/WTO membership's impact on the level and direction of trade. Their results show that GATT/WTO contribution to trade depends on proximity and level of national income of member states. In other words, GATT had asymmetric effect on trade. This finding confirmed the assertions made by Gowa and Kim (2005).

However, it is not necessary that the WTO accession will always positively affect a country, particularly when it is a small developing country. For example, Mobariz (2016) finds that the WTO accession increased the welfare of consumers in Afghanistan, while WTO membership decreased government revenue because of lower tariff revenue. Mobariz (2016) considers that the net effect on the Afghanistan industry is negative and Afghanistan would lose in increased competition without tariff protection. Balistreri, et al. (2017) country-specific model for Belarus suggests that although the impact of WTO accession is positive (2.4 per cent of GDP) but this impact is far less than that of domestic privatization reforms that could cause (17.4 per cent of GDP). Looking forward to the potential results of the ongoing Doha Round of negotiation, Francois, et al. (2005), argue that the gain of developing countries from joining the WTO is modest.

Some studies doubt the role of WTO in trade liberalization and consider that openness and development is the result of fundamental changes in the domestic economy [Rodriguez and Rodrik (2000), Kenny and Williams (2001)]. They give less importance to the external sector in trade liberalization. According to this view, 'integration into the world economy' cannot 'substitute for a solid indigenous development strategy.' Therefore, connecting to the outside world without preparation will produce a detrimental effect on developing countries [Rodrik (1997) Stiglitz (2002)].

Chang (2002) considers that all major developed countries used interventionist economic policies in order to get rich and now they try to forbid other countries from doing similarly. He assumes that the WTO and Bretton Woods institutions make it difficult for the developing countries to catch on with the developed part of the world and therefore, they receive strong criticism for this kind of ladder-kicking. Developed countries club, according to Chang (2002), deliberately block the under-developed countries from growing.

Kuang and Wei (2008) studied the value of external commitment to policy reforms in the case of WTO accessions. The accessions often entail reforms that go beyond

narrowly defined trade liberalization and have to overcome fierce resistance in the acceding countries, as reflected in protracted negotiations. The growth and investment consequences of WTO accessions were observed. The accessions tend to raise income and investment, but only for those countries that were subject to rigorous accession procedures. This means that countries, who prepared well, derived greater benefits from the accession from joining the WTO while others did not. This suggests that policy commitments associated with the accessions to the WTO were helpful but only for countries who prepared themselves.

IV. Methodology and Data

In this paper we use descriptive, statistical and quantitative analysis to analyze the possible effects of joining the WTO on growth, trade and FDI inflows in South Asian economies. Graphical presentation and mean differences 'T' test will be used in the study to measure the impact of the WTO descriptively and statistically. While using fixed effect simultaneous model techniques, we use two sets of simultaneous equations model for measuring the impact of joining the WTO.

Set 1

$$logXpt_{it} = \alpha_0 + \alpha_1 logWGDP_t + \alpha_2 logFDI_{it} + \alpha_3 logMpt_{it} + \alpha_4 logTF_{it} + \alpha_5 Inf_{it} + \alpha_6 A_{it} + \xi_t + \varepsilon_{it} \quad (1)$$

$$logMpt_{it} = \beta_0 + \beta_1 logGDP_{it} + \beta_2 logFDI_{it} + \beta_3 logXpt_{it} + \beta_4 logFD_{it} + \beta_5 Inf_{it} + \beta_6 A_{it} + \xi_t + \varepsilon_{it} \quad (2)$$

Set 2

$$logGDP_{it} = \delta_0 + \delta_1 logWGDP_t + \delta_2 logFDI_{it} + \delta_3 logTO_{it} + \delta_4 HC_{it} + \delta_5 DI_{it} + \delta_6 A_{it} + \xi_t + \varepsilon_{it} \quad (3)$$

$$logFDI_{it} = \theta_0 + \theta_1 logWGDP_t + \theta_2 logGDP_{it} + \theta_3 logDI_{it} + \theta_4 logHC_{it} + \theta_5 TF_{it} + \theta_6 A_{it} + \xi_t + \varepsilon_{it} \quad (4)$$

where '*i*' and '*t*' are indices for countries and time period. ξ_t, and ε_{it} in Equation (1) to (4) are time variant effect and random error. GDP_{it} is the gross domestic product of South Asian countries at time *t*; $WGDP_t$ is the world *GDP;* XPt_{it} is the exports of country '*i*' at time '*t*'; MPT_{it} is imports of country '*i*' at time *t* and FDI_{it} is the inflows of Foreign Direct Investment to South Asian countries at time *t*. All these variables are in million U.S dollars and expressed in log form. '*A*' is the dummy for *WTO* while *HC*, *FD*, *DI*, *FT* and Inf represents human capital, Financial deepening, domestic investment, trade facilitation and infrastructure, respectively. '*A*' takes the value 0 before joining the WTO and one after joining the WTO, i.e., 0 before 1995 and one after 1995. The variable of infrastructure is derived from Donabouer, et al. (2015). The variables of trade facilitation we used the Doing Business database of the World Bank. Doing business measures the following three components of exports and imports.

(i) The number of documents essential for international trade.
(ii) The time required to complete all procedures related to international trade.
(iii) The cost associated with procedures and documentation for international trade.

In this paper, we used the above three indicators, aligned their different units and scale, so to construct a single measure of trade facilitation with scale ranging from 0 to 10. Higher values mean better trade facilitation. This way our variables of trade facilitation (TF) incorporated different dimension of time and cost of doing business.

Fixed Effect (FE) and Random-Effects (RE) estimation are the commonly used estimation techniques for pooled data regression. When exogeneity assumptions are violated, Egger (2005) suggests FE models in order to address the issue of biased and inconsistent parameter estimates should be employed. Our findings also support 2SLS Fixed Effect estimation.

Data on all the variables: Gross Domestic Product (GDP), World GDP, Exports, Imports, Domestic Investment, Trade Facilitation (doing business) and Foreign Direct Investment (FDI) for four South Asian countries (i.e., India, Pakistan, Bangladesh, and Sri-Lanka) from 1981 to 2016 are collected from the World Bank Development Indicators[7]. The data on infrastructure is derived and extrapolated from Donabouer, et al. (2015), while trade facilitation data is calculated from doing business database of the World Bank.

V. Results and Analysis

We have used the simultaneous equation fixed effect panel data technique for selected South Asian countries. There are three techniques for fixed effect simultaneous estimation: (i) within group fixed effect, (ii) dummy variable regression, and (iii) first differences. In this paper, we use the first and the last approach i.e., within group and first difference approach. The selection of fixed effects (*FE*) techniques is based on the Hausman specification test. Hausman test examines whether the unique errors (ε_{it}) are correlated with the regressors, while the null hypothesis is they are not correlated. In our model, the low 'p' values of Hausman test show that FE is more suitable option. However, as pointed out by Baltagi (2008) Fixed Effect models are prone to contemporaneous correlation and heteroscedasticity. Therefore we use Bruesch Godferry and Bruesch Pagan test to take the issues of autocorrelation and hetero.

Table 1 presents the result for the first set of structural equation on export and imports. The result shows that exports in South Asia contribute to the flow of imports; however, imports do not play any role in promoting exports. This shows that most of the imports in South Asia are not secondary goods used in the process of production and exports, rather, they are consumption goods. An increase in World GDP is a good sign for exports in South Asia. As World GDP increases by one per cent, the export of South Asia increases by 0.550 per cent under within mean and by 0.627 per cent under the first difference. The impact of World GDP on imports is also positive and significant but not strong when compared to the impact of world

[7] http://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?page=1

GDP on exports. A one per cent increase in World GDP increased the flow of imports to South Asia in a range of 0.154 to 0.281 per cent.

The result in Table 1 shows that GDP is not a significantly effective tool to promote exports in South Asia; however, GDP is a strong attraction for imports in South Asia. Contrary to the findings of GDP, the impact of FDI inflows is strong in promoting exports than imports. Infrastructure also contributes positively to exports and imports but the influence of infrastructure in very strong in promoting exports. Many South Asian countries are in the process of development; therefore, they need to import machinery and raw material to develop their infrastructure. Thus, infrastructure not only increases their exports but it also increases imports. The variable of financial deepening

TABLE 1

The Impact of Joining the WTO on Xpt (Exports) and Mpt (Imports)

	Xpt		Mpt	
Variables	Within Mean	1st Difference	Within Mean	1st Difference
Intercept	2.151	1.160	1.761	1.2757
	(0.010)*	(0.008)*	(0.000)*	(0.009)*
Xpt	-	-	0.258	0.372
			(0.030)**	(0.000)*
Mpt	0.176	0.173	-	-
	(0.105)	(0.152)		
WGDP	0.550	0.627	0.281	0.154
	(0.000)*	(0.001)*	(0.050)**	(0.067)**
GDP	0.027	0.037	0.051	0.061
	(0.032)**	-0.881	(0.000)*	(0.000)*
FDI	0.027	0.037	0.051	0.011
	(0.032)**	(0.001)*	(0.100)***	(0.080)**
Inf	0.069	0.044	0.069	0.037
	(0.020)**	(0.010)*	(0.000)*	(0.000)*
TF	0.122	0.137	-	-
	(0.022)**	(0.011)**		
FD	-	-	0.069	0.037
			(0.000)*	(0.000)*
A	0.072	0.0274	0.048	0.013
	(0.398)	(0.443)	(0.0103)	(0.109)
Adj R^2	0.64	0.76	0.75	0.80
Hausman test p values	0.000	0.005	0.010	0.002
F Statistic	12.45	13.43	10.01	13.01
Bruesch Godferry test	0.010	0.009	0.003	0.002
Bruesch Pagan	0.021	0.033	0.013	0.011

Note: * , ** and *** is significant at 1, 5 and 10 per cent level, respectively.
Source: Authors' estimation.

suggests that as the provision of capital in South Asia increases, it enhances the flow of imports while trade facilitation increases exports.

Finally, the variables of our interest, i.e., the dummy for joining the WTO, shows that joining the WTO did not affect the outflow of exports in South Asia. This finding is contrary to the main purpose of joining the WTO. Although the impact of the WTO on exports is insignificant but joining the WTO increased the flow of imports to South Asia. This shows that only joining the WTO is not a guarantee for promoting exports.

The diagnostic tests by the end of the results show the validity of the models and suggest that there is no hetero and autocorrelation. The values of the Hausman test show that the model suffered from endogenity problem and therefore, the selection of right instrument was necessary for unbiased results.

Table 2 presents the result for the second set of simultaneous panel equations. The results indicate that FDI inflows and GDP positively and significantly contribute to each other. This finding confirms the widespread literature which suggests that as GDP increases, it attracts more FDI and the inflow of FDI contributes to the growth of the local economy by spillover affects. However, it is beyond the scope of this paper to explore bidirectional causality. An increase in World GDP is a positive sign for South Asian economies. World GDP positively influences the GDP in South Asian countries; however, World GDP does not affect the inflow of FDI to South Asian countries. One plausible reason might be that the World GDP increase is a sign of booming business abroad and therefore, investors are more keen to invest in stable regions with a strong institutional background [Shah, et al. (2016)]. Domestic investment has a great attraction for foreign investment. Domestic investment in the form of gross fixed capital formation plays an equally positive role in promoting GDP. Similarly, Trade openness tends to increase GDP.

Normally it is assumed that trade facilitation promotes trade and increase in trade attracts FDI. However, our findings in table 2 suggest that trade facilitation impact on FDI inflows is insignificant. This finding is contrary to the literature and therefore needs further scrutiny. Human capital is equally important for the inflow of FDI and an increase in GDP. In endogenous growth theories, Human Capital is linchpin of productivity and when productivity increases GDP as well as, FDI inflows start rising in the South Asian region.

The role of the dummy variable for WTO, i.e., shows that joining the WTO is not as an effective way to promote GDP and attract more investment. Although our findings in Table 1 show that joining the WTO increased imports, but the results in Table 1 show that overall, effect of WTO on the GDP and FDI inflows in South Asia is insignificant. This finding is a big discouragement for policymakers who considered the WTO is a shortcut for rapid development and enhanced inflows of FDI. Rather the findings show that development owes a lot to the structural reforms and competitive standing of a country. Although WTO pushed the member states for wide reforms; however, there is no substantial change in the structure and competitive standing of the South Asian regions. Therefore, the net impact of the WTO on major economic variables remained redundant.

TABLE 2

The Impact of Joining the WTO on GDP and Foreign Investment

	GDP		FDI	
Variables	Within Mean	1st Difference	Within Mean	1st Difference
Intercept	3.987	2.173	1.716	1.257
	(0.000)*	(0.038)**	(0.000)*	(0.059)***
GDP	-	-	0.056	0.071
			(0.000)*	(0.000)*
FDI	0.047	0.036	-	-
	(0.072)***	(0.041)**		
WGDP	0.510	0.467	0.425	0.544
	(0.000)*	(0.001)*	(0.210)	(0.122)
DI	0.055	0.038	0.069	0.07
	(0.020)**	(0.098)***	(0.000)*	(0.000)*
HC	0.227	0.376	0.033	0.041
	(0.011)**	(0.017)**	(0.091)***	(0.056)***
TO	0.387	0.444	-	-
	(0.030)**	(0.099)***		
TF	-	-	0.059	0.067
			(0.230)	(0.328)
A	0.037	0.039	0.018	0.01
	(0.120)	(0.140)	(0.214)	(0.467)
Adj R^2	0.72	0.79	0.78	0.82
Hausman test p values	0.000	0.005	0.000	0.000
F Statistic	7.99	13.32	8.88	9.01
Bruesch Godferry test	0.000*	0.000*	0.000*	0.000*
Bruesch pagan	0.044	0.051	0.039	0.033

Note: * , ** and *** is significant at 1, 5 and 10 percent level, respectively.
Source: Authors' estimation.

VI. Conclusion

In this paper, we examined the impact of the WTO on South Asian economies on key macroeconomic variables. For this, we employed fixed effect simultaneous equation model. Based on the empirical evidence, the paper concludes that the impact of joining the WTO on key macroeconomic variables is not up to the mark. In most cases, exports, imports, GDP and FDI is promoted by factors other than the WTO. Stagnant exports and the increasing trade deficit is a big problem in South Asian countries and policymakers expected abundance from the WTO. However, our results show that the proposed positive effect of joining the WTO on exports is conspicuously missing. The

role of WTO in promoting GDP and increasing FDI inflows is also insignificant. This shows that despite all pomp and shows, the WTO did not bring any result to the macroeconomic development of the South Asian region. On the other hand, the variables of domestic investment, FDI inflows, infrastructure development and trade openness play a significant role in promoting trade and GDP. This shows that South Asian countries did not prepare themselves for the spillover effect of joining the WTO and the policymakers in South Asian countries, as usual, are under the influence that mere joining an organization is enough to produce good results. For reaping the benefits of joining the WTO, the South Asian countries need to understand their comparative and competitive edge. They also need reforms beyond tariff reduction and opening borders for international trade.

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