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Effect of Financial Development and Foreign Direct Investments on Economic Growth in SAARC Countries: A Panel ARDL Approach

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ABSTRACT

This paper explores the impact of financial development and foreign inflows on economic growth in the following SAARC nations: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka from 2006 to 2019. The econometric tool used is the Autoregressive Distributed Lag Model (ARDL) in panel settings and Pedroni Cointegration test to observe the connection between financial development, foreign influx, and economic growth. Findings from the Pedroni panel cointegration test showed that the variables are cointegrated in the long run. Pooled Mean Group (PMG) estimates suggested that broad money positively affects economic growth while gross savings have an undesirable influence on economic growth. However, the influence of domestic credit was negative but insignificant. Further, the influence of external influx on output growth is found to be adverse. The findings suggested that the economic policies of these countries should be defined by considering the financial sector of these countries.

Keywords: Economic Growth, Financial Development, Foreign Direct Investment, India, Panel ARDL, Cointegration

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INTRODUCTION

The primary goal of every country in the world is to attain high growth to achieve a high level of development and improve the standard of living. To attain these goals, numerous schools of thought have proposed numerous approaches. The financial development-led growth proposition emphasizes the role of financial development as a remedy for growth, whereas the FDI-led economic growth proposition emphasizes managing and attracting external flows (Ibrahim & Alagidede, 2020; Balach & Law, 2015; Estrada et al., 2010; Odhiambo, 2009; Saci et al., 2009).

The theoretical support for financial development, foreign inflows, and economic progress stems from Neo-classical and Endogenous growth theories. These theories considered the accretion of capital and technological incentives to be imperative for attaining the economic progress and development of the nations. The advancement of a financial structure is precisely stated as the expansion of the dimensions, effectiveness, and solidity of financial institutions and bourses. It also includes increased access and admittance to the financial markets (Beck et al., 2000). A sophisticated financial system maneuvers the funds of an economy into lucrative investments. It assists in lessening information costs and effective implementation of contracts, thus leading to better capital apportionment. Further, the increased access to financial resources brings dynamic efficacy in the system and creates a fundamental and operational transformation through innovation, and provides a wellbeing advantage to the whole economy. As inferred by Levine (1997), financial development enhances growth by (i) disclosing potential information about likely investments (ii) conceiving and examining investments (iii) assisting in managing and diversifying risk (iv) channelizing the savings of people, and (v) trading goods and services. Thus, the financial system influences the savings and investment decisions, which eventually leads to the economic growth of the whole economy.

Since no country in the world is having enough resources to fulfill its need completely on its own, foreign investment is sought. The role of FDI in domestic economic development is undeniable, therefore, foreign flows are sought by developed as well as developing countries. According to De Mello (1997), FDI assists in augmenting economic growth in two ways. First, FDI enables the embracing of new know-how in the construction process through capital contagion. Second, FDI also boosts the transfer of technical know-how

in terms of employee training and skill attainment, as well as by becoming acquainted with various management processes and improved administrative abilities (Lee & Chang, 2009). Further, FDI augments scientific and industrial changes through the spillover effects of acquaintance and innovative capital goods. But the extent of benefits from FDI in host countries depends on its own financial and economic system The accretion of capital resources and scientific revolution work as paraphernalia for financial development and growth (Ibrahim & Alagidede, 2020). The theoretical support for the financial development, foreign inflows, and economic progress relation also exists from the FDI-growth premise. This premise states that an optimistic connection amid FDI inflow and growth exists, only if the recipient states have accomplished a moderately high level of advancement in their financial system (Azman-Saini et al., 2010; Alfaro et al., 2004). A moderately developed financial system effectively captivates the foreign inflows and works as a pre-condition to gain the benefits accompanying the FDI in enhancing growth (Hermes & Lensink, 2003), thus, the financial advancement of a country is complementary to FDI in enhancing the degree of economic growth (Alfaro et al., 2004).

The South Asian Association for Regional Cooperation (SAARC) was instituted in 1985 and has eight affiliate members presently. These member states are principally categorized as high economic progress, low-priced workforces, abundant greenfield venturing prospects, and large and expanding markets for diverse products and services (Sethi et al., 2020; Sehrawat & Giri, 2016). Because of these advantageous investment inducements, SAARC is regarded as one of the most prevalent pivots for external inflows. The foremost five countries of the region, as illustrated in Figure 1, have been attracting larger external flows relative to their GDP. Besides, these nations have also introduced various financial reforms to liberalize the economy since the 1980s. These liberalization procedures include privatization of public-sector institutions and banks, deregulating the interest rates, and allowing the foreign banks and institutes to work within national boundaries (Ellahi & Khan, 2011; Tahir & Alam, 2020). As shown in Figure 1, the broad money ratio has increased and the credit ratio is ranging between 15.38% to 78.94% in the SAARC region, which shows the increased financial penetration in these countries. The gross savings are also widely fluctuating and all the countries are witnessing a decrease in gross savings except for Sri Lanka, where it has increased from 22.68% in 2006 to 24.70% in 2019. As per Rajan & Zingales (1996), the economic progress of a country is also driven by the tendency of its households

to save.

Figure 1: Principal Indicators of SAARC Countries

Against these backdrops and the key roles provided by financial development and foreign inflows in the economic development of emerging and developing economies, this study observes the connection amid financial development, foreign inflows, and output growth of 7 SAARC states, namely, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka covering the period from 2006 to 2019.

Closely related to this specific study are the studies conducted by Lee and Chang (2009), Azman-Saini et al. (2010), and Sethi et al. (2020). They explored the connection between FDI, financial advancement, and economic progress by studying the interactive effect of foreign influx and financial advancement and reported that financial advancement has a greater bearing on productivity growth when indulged with FDI. This study differs from Lee and Chang (2009), Azman-Saini et al. (2010), and Sethi et al. (2020) since the researchers have used the panel ARDL method to observe the dynamic effect of financial development and external influx on output progress. Further, these studies only included a narrow sense of financial development, using the credit ratio as a proxy, whereas this study incorporated broad money and gross savings along with domestic credit to properly capture the financial development; thus, this paper presents a comprehensive impact of financial development on economic progress. In addition, the researchers have also provided short-run estimates for each country in the study separately. Additionally, this paper makes the following contributions: (a) Though numerous factors contribute to a nation's growth process, the impact of FDI and financial development at the same time is rarely investigated in SAARC countries. As a consequence, our current work will plug this void. (b) This article has used more latest, up-to-date data, which is more appropriate given that the SAARC countries have been among the fastest-growing countries in the world. As a result, these countries must investigate the impact of these variables on the growth process using up-to-date data. (c) Furthermore, this article has been written in the period preceding the occurrence of the COVID-19 pandemic, so the findings of this paper will stand. (d) Finally, the researchers applied the Pedroni panel cointegration and PMG estimation techniques, therefore, the findings of this paper are highly reliable.

The findings will help policymakers in making better decisions about financial development, FDI, and their contribution to output growth in SAARC countries. Since SAARC countries have been implementing liberalization policies for the last few years, these findings will be of great interest. Further, the SAARC countries' conducive economic policies are aimed to entice output growth by increasing effectiveness, reducing the burden on fiscal budget, creating a favorable economic environment and attracting foreign direct investments.

The researchers have structured the paper as follows. In the next section, the researchers provide an overview of related literature relating to financial development, foreign inflows, and economic progress. In the following section, the researchers summarize data and the econometric method. The next section contains findings and interpretations, and finally, the paper summarizes the whole study together with the limitations of the study.

LITERATURE REVIEW

The endogenous growth theories, neo-classical growth theories, and various analytical studies have established a linkage between financial development, foreign inflows, and economic growth. On the theoretical front, the pioneer contribution in establishing the connection between financial development and economic progress is made by Schumpeter (1912), and Shaw (1973). They recommended that the accessibility of finance boosts industrialists and businesspersons to revolutionize and manufacture further goods and services (Estrada et al., 2010; De Gregorio and Guidotti 1995). A sound financial system channelizes savings into profitable investments and eases the trading, divergence, and administration of risk. Later, Greenwood & Jovanovic (1990), Levine (1997), and De Gregorio and Guidotti (1995) provided backing for the development-enhancing consequence of financial development as proposed by Schumpeter (1912). The first empirical study on finance-growth nexus was done by Goldsmith (1969) on 35 countries during the period 1860-1963 using regression analysis. He reported that financial mediation has a constructive effect on output growth (De Gregorio & Guidotti, 1995). Far along, founded on Goldsmith's (1969) work, Beck et al. (2000), and Levine and Zervos (1998) found similar results. Also, Beck & Levine (2004) reported an optimistic influence of the bank sector advancement on the economy. Although, in recent years, researchers are keen to investigate the mechanism through which financial advancement contributes to economic progress. Therefore, the role of foreign inflows has been studied by many researchers through various economic theories.

Harrod and Domar models stated that foreign inflows contribute to the economic progress of a state by increasing the labor force. Yet this model was criticized by neo-classical economists such as Solow (1957) and De Mello (1997). They conferred that FDI backs to output growth by bringing technological change and labor force growth. Market imperfection theories, proposed by Hymer (1976) also supported the view that foreign inflows make

the business firms more competitive by providing technical and location edge (Kanu, 2015). Analytically, Hussain et al. (2021) found an adverse impact of FDI on economic progress using twelve-monthly data of 24 nations for the period 1995-2016, using annual data of 12 middle-income nations for the period 1990-2017, and the panel ARDL technique, Zardoub (2021) found an adverse bearing of external investment on economic growth in selected nations.

Recently, several authors have argued that the role of foreign inflows in enhancing output growth is contingent on the level of financial advancement of the receiver nation (Hermes & Lensink, 2003; Alfaro et al., 2004). According to them, an advanced level of financial development made the nations take advantage of FDI in more competent ways. For example, increased credit availability enables organizations to procure new machinery, espouse new technology, and hire more capable managers and laborers. Additionally, an advanced financial system makes it easier for FDI to establish multilateral links, which benefit local suppliers through increased production efficiency. Therefore, financial development is critical in letting the host country take advantage of the FDI spillovers. Using annual data from 1970-1995 of 67 least developed nations, Hermes and Lensik (2003) argued that the financial development of a country is a prerequisite for the foreign influx to have an optimistic impact on economic growth. Using a linear interaction model, Alfaro et al. (2004) reported that the advancement in local bourses works as a significant prerequisite for a constructive impression of FDI on economic growth. Ang (2009) examined the FDI-growth nexus by taking financial development as a control variable in Malaysia for the period 1965 to 2004. He reported that financial development and FDI are optimistically correlated with economic progress in the long-run. Using annual data for 1970-2001 in Nigeria, Akinlo (2004) reported that the impact of FDI in sectors other than oil would have growth-enhancing effects. Applying a threshold model over the data period of 1975-2005 of 91 countries, Azman-Saini et al. (2010) reported that the optimistic upshots of external funds in increasing growth "kicks in" only if the domestic market has developed to a particular level.

In the SAARC region also, several authors have considered the nexus between finance, foreign inflows, and economic progress. Ahmed and Ansari (1998) explored the connection between financial segment growth and economic progress in India, Pakistan, and Sri Lanka and reported that monetary development has made a noteworthy bearing on output growth in these nations. Jun (2015) examined the paraphernalia of foreign influx on eight South Asian

nations' output growth, utilizing twelve-monthly data for the period 1960-2013 and used panel cointegration techniques. They found a two-way link between FDI and growth. Using PMG and MG estimates for the period 1984-2008, Balach and Law (2015) found the momentous impression of financial development on output performance in South Asian nations. They also proclaimed that the influence of economic development is momentous only when the financial sector is technically advanced and has adequate human capital. However, An and Yeh (2020) found contrasting results. They examined the FDI-growth connection, contingent on the domestic financial development in 18 Asian nations for the period 1996-2017 using panel smooth transition regression (PSTR). They found a U-shaped connection between FDI and growth, depending on domestic monetary development.

Given the above discussion, it can be seen that very limited studies have observed the association between FDI, financial development, and economic progress in South Asia, particularly in the SAARC region. Further, mixed results are found about the association among the variables. Against these backdrops, the present paper observes the connection between financial development, FDI, and economic progress in the SAARC region.

METHODOLOGY

The present paper aims at exploring the influence of financial development and foreign influx on output growth in seven SAARC states, namely, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka using panel data from 2006 to 2019. Economic growth is measured as the growth rate per capita GDP. It is generally a difficult task to capture the financial development of a country because both banks and stock markets play a major role in providing financial services. But the stock market data was not available for all the countries, therefore, Domestic credit to the private sector (DCP), Broad money (BM), and Gross savings (GS) are used to proxy the financial development. FDI is taken as the net arrival of FDI (% of GDP). Yearly data comprise of 14 years for every nation, based on the availability of the data, is engaged from the World Development Indicator.

The following modified neo-classical growth theoretical model based on Odedokun (1996), is used in the current study to observe the connection between financial development, foreign inflows, and economic progress in the SAARC region: EG=f (FD, FDI). Odedokun (1996) employed this model to

analytically observe the nexus between finance and progress in 71 emerging nations. Based on this model, the researchers have used the following equation for the study:

$$EG_{it} = \alpha_i + \beta_i DCP_{it} + \theta_i GS_{it} + \delta_i BM_{it} + \rho_i FDI_{it} + \varepsilon_{it} \quad (1)$$

where DCP is the ratio of domestic credit, GS is the gross savings, BM is the broad money and FDI is representing the external inflows. ε_{it} is the residuals and are normally dispersed with constant variance. It is observed that the macroeconomic variable series generally have integrating effects. Therefore, it is indispensable to examine the stationarity of macro series before using cointegration techniques. The researchers have applied the Im, Pesaran, and Shin (IPS) test as well as the Levin, Lin, and Chu (LLC) unit roots test to test the stationarity of the data. IPS test is calculated by averaging the country-specific augmented Dickey–Fuller (ADF) test figures and it allows for differential constants and slope coefficients for different cross-sections and also allows for the problem of autocorrelation.

The IPS unit roots test is calculated as:

$$y_{it} = \rho_i y_{i,t-1} + \sum_{i=1}^{p_i} \delta_{ij} \Delta y_{i,t-i} + z'_{it}\varphi + \varepsilon_{it} \quad (2)$$

where, $z'_{it}$is the column-vector of the deterministic component. The maintained premise is that all the panel series are having unit root, i.e., H_0: ρ=1 and the alternative premise is that the sequence is stationary; H_1: ρ < 1. If both N and T tend to infinity, the IPS t-statistic is:

$$t_{IPS} = \frac{\sqrt{N}(t - \frac{1}{N}E[t_{iT}\rho_i = 1])}{\sqrt{\frac{1}{N}var[t_{iT}|\rho_i = 1]}} \quad (3)$$

However, the LLC test are calculated as follows:

$$y_{it} = \rho_i y_{i,t-1} + z'_{it}\varphi + \epsilon_{it} \qquad i = 1,2,3,\ldots\ldots,N \text{ and } t = 1,2,3,\ldots,T \quad (4)$$

In the LLC test, only the intercept term is supposed to be heterogeneous. This test's-maintained premise is that the series in the panel has unit-roots (H0: ρ=1) however, the alternate proposition is that the series is stationary (H1: ρ < 1). It provides a testing practice that is based on the expected value of individual

unit-roots testing values. Further, error term (ϵ_{it}) is assumed to follow Gaussian distribution with zero average and sigma square in both the unit root tests.

The researchers have employed the most popular panel cointegration technique, that is, the Pedroni panel cointegration test. Pedroni (1999) allows for individual-specific heterogeneity by using specific parameters. It lets for cross-sectional interdependency with individual-specific effects and is estimated as:

$$\Delta y_{it} = \alpha_i + \theta_{it} + \Delta y_{i,t-p} + \varepsilon \quad (5)$$

Pedroni has inferred seven different statistics to observe for a long-run connection, classified into two groups, namely, within the dimension and between dimensions. The foremost four figures, namely, v-stats, rho-stats, t-stats, and ADF-stats, are called within the dimension, and the rest three, namely, Group rho-stats, PP-stats, and Group ADF-stats are called the between dimensions. Both within-group and the between-group tests focus on the maintained premise of no cointegration (H0: ρi=1 for all i, where ρ statistics is the average of individual lagged dependent variable coefficients connected with the unit root test of the residues of individual nations in the panel). The computed test statistic should essentially be lesser than the tabularized critical value to discard the maintained proposition of no cointegration.

The Pedroni test does not consider the cross-country dependency and it considers the long-run parameters of the variables at the level to be identical to the short-run parameters at the first difference of the variables. Therefore, besides applying the residual-based Pedroni cointegration test, the researchers implemented the Panel ARDL test to observe the long-run connection.

The ARDL approach for cointegration, proposed by Pesaran et al. (1997) and Pesaran et al. (2004), is a 2-step technique where the foremost stage is to examine the incidence of a long-run connection amid variables. If the long-run connection is found amongst the variables, then, the subsequent stage involves approximating the long-run and short-run quantities. As conferred by Pesaran et al. (1997) and Pesaran et al. (2004), using the ARDL technique in panel data settings, cross-section restrictions are implemented to the long-run coefficients by maximum-likelihood approximation. Consequently, Hausman's (1978) test is applied to examine the legitimacy of the restrictions.

Based on the results of the Hausman tests, the PMG estimation is used for providing estimators and is obtained by taking an average of unrestricted individual country coefficients. PMG estimation produces better results and the long-run coefficients are assumed to be homogeneous while short-run coefficients are considered as country-specific because of the varying impact of financial crises and external shocks in different countries and the adoption of nation-specific stabilizing and monetary policies etc.

For the short sample period, Panel ARDL was also used by Bildirici and Kayikci (2013), from 1993 to 2010, to disentangle the association between oil production and output growth in leading oil-exporter nations. Olayungbo and Quadri (2019) investigated the connection amongst foreign assistance, financial development, and output progress in 20 Sub-Saharan nations considering the period 2000-2015 using panel ARDL and found a positive effect of remittance and economic development on economic progress. It was also used by Sun et al. (2019) to investigate the impact of economic openness, foreign influxes, and trade liberalization on the environment in SAARC nations.

The above ARDL (p, q) equation is estimated for the study:

$$\Delta EG_{it} = \alpha_i + \sum_{k=1}^{p} \delta_{ij} \Delta EG_{i,t-j} + \sum_{k=0}^{q} \theta_{ij} \Delta FD_{i,t-j} + \sum_{k=0}^{a} \vartheta_{ij} \Delta FDI_{i,t-j} + \gamma_{1ij} EG_{i,t-1} + \gamma_{2ij} FD_{i,t-1} + \gamma_{3ij} FDI_{i,t-1} + \varepsilon_{it} \quad (6)$$

where i=1,2,3,….., N is the cross-sectional units representing the six SAARC nations, t = 1,2,…., T is the time, α_i are the country-specific constants whereas δ_{ij} and the θ_{ij} are the k by 1 vector of parameters for explanatory variables. The maintained premise is that there is no cointegration amongst the variables; H_0: γ_{1i}= γ_{2i}= γ_{3i}=0 counter to the alternative hypothesis of H_1: $\gamma_{1i}\neq \gamma_{2i}\neq \gamma_{3i}\neq 0$. A separate set of critical values are taken contingent on whether the variables are stationary at order zero; I(0), or are first difference stationary; I(1). If the figured F-statistic exceed the upper bound, the maintained hypothesis gets rejected. If the F-stats is lesser compared to the lower bound it leads to acceptance of the maintained hypothesis. Based on the assumption of the no heteroscedasticity amid countries, the researchers assumed the long-run slope quantities of the nations to be similar and these restrictions are verified by the Hausman test (1978):

$$\chi^2 = (b - B)'[(V_b - V_B)^{-1}](b - B)' \quad (7)$$

where, (b - B) is the difference amid unconstrained Mean Group and constrained PMG. Hausman proposed that the variance of $(b - B)'[(V_b - V_B)^{-1}](b - B)'$ is reliable during the maintained hypothesis of homogeneousness.

In the next step, if cointegration is found, the long-run and short-run parameters are estimated. The short-run constraints are valued by approximating an error correction model connected with the long-run estimations:

$$\Delta EG_{it} = \beta_i + \sum_{k=1}^{p} \delta_{ij} \Delta EG_{i,t-j} + \sum_{k=0}^{q} \theta_{ij} \Delta FD_{i,t-j} + \sum_{k=0}^{a} \vartheta_{ij} \Delta FDI_{i,t-j} + \rho_{ij} ECT_{t-1} + \varepsilon_{it} \quad (8)$$

where ECT is the Error Correction Term and ρ is the coefficient of the speed of adjustment to the symmetry following the shock wave. It illustrates how rapidly variables congregate to symmetry. Its value must be negative and statistically momentous. The ECT term lets for the evaluation of the short-run causation by using the lagged difference of exogenous variables while the long-run causation is assessed by the lagged ECT term. Further, if the variable quantities are co-moving, PMG estimates can be used to evaluate the short-run Granger causation of the estimators.

DATA ANALYSIS AND RESULTS

The researchers instigate correlation analysis to explore the connection between the variables using a heat map as a graphical representation of the unconditional correlation matrix, presented in Figure 2. Financial development relates to output growth, as all the pointers of financial development, i.e., the ratio of domestic credit (0.127), broad money (0.065), and gross savings (0.351) have a positive correlation with the per capita GDP of the states. This suggests that the increase in financial development provides impetus to the economic progress of the states. Nevertheless, a negative correlation between net foreign inflows to GDP (-0.056) is found. Further, a negative association is also found between FDI to domestic credit (-0.126), between FDI and Broad money (-0.426), between FDI and Gross savings (-0.101). This implies that the foreign

inflows to GDP ratio are negatively correlated with financial development.

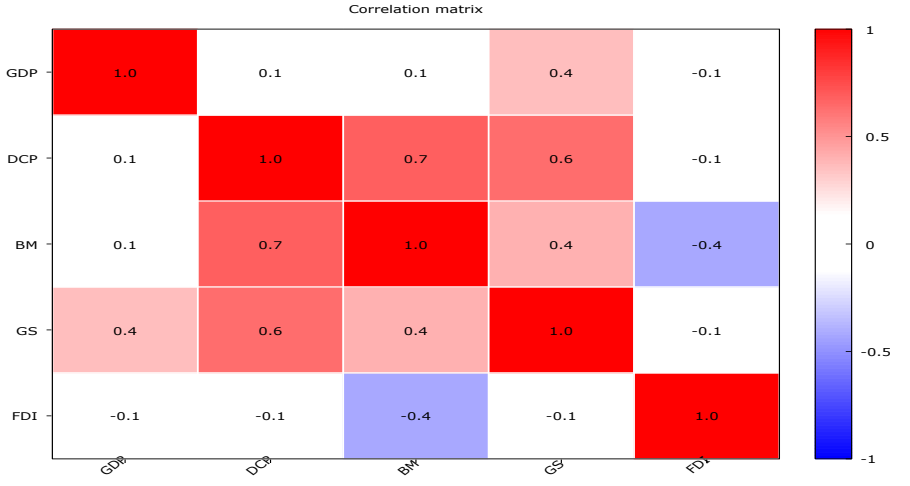

Figure 2: Unconditional Correlation Heat Map

The researchers have used the Im, Pesaran-Shin (IPS), and Levin-Lin, Chu (LLC) tests for examining the incidence of non-stationarity in the panel data. The results of LLC and the IPS tests given in Table 1, shows that all the series except for Gross savings (GS) are stationary at the level of 1 percent level of significance, whereas the Gross saving (GS) is stationary at the first difference. Thus, variables are integrated in mixed order and none of the variables is integrated at the second level, thus, the researchers have applied the panel ARDL model.

Table 1: The outcomes of panel unit roots tests

	LLC		IPS	
Variable	Level	First difference	Level	First difference
GDP	-7.127	-11.619	-2.856	-5.956
	(-0.001)	(0.000)	(-0.002)	(0.000)
DCP	-8.647	-5.973	-2.401	-1.684
	(0.000)	(-0.013)	(-0.008)	(-0.046)
BM	-4.451	-7.881	**-0.615**	-2.622
	(-0.007)	(0.000)	**(-0.269)**	(-0.004)
GS	**-2.515**	-10.290	**0.291**	-4.358
	(-0.185)	(0.000)	**(-0.614)**	(0.000)
FDI	-6.935	-12.490	-2.426	-6.347
	(0.000)	(0.000)	(-0.008)	(0.000)

Notes: Values in the parentheses are the p-value (Source: Author's elaboration)

Table 2 reports the Pedroni cointegration test statistic within and between dimensions. All 7-panel cointegration tests discarded the maintained proposition of no long-run connection amongst financial development, FDI, and Economic growth as shown in Table 2. According to these results, there is a long-run connection amid financial development, foreign inflows, and economic growth in SAARC nations.

Table 2: Pedroni cointegration and ARDL test outcomes

Within dimension statistic		Between dimension statistic	
Panel v-stat	-2.254	Group rho-stat	0.839
Panel rho-stat	2.787	Group PP-stat	-11.810
Panel t-stat	-10.190	Group ADF-stat	-0.118
Panel ADF-stat	-0.101		

Source: Author's elaboration

The Hausman test statistic gives the results in favor of PMG estimates with a Chi-square value of 0.22 (p-value of 0.994), therefore, long-run and short-run quantities are estimated by using PMG estimation for each country. The long-run and short-run quantities are illustrated in Table 4. According to these results, the effect of Domestic credit on output growth is adverse but insignificant with a p-value of 0.192. This implies that domestic credit has no substantial effect on output growth in SAARC states in the long-run. Petkovski and Kjosevski (2014) stated that the ratio of private credit has an undesirable impact on output progress. Likewise, Ibrahim and Alagidede (2020) stated that the speedy growth in credit to the private sector has an adverse consequence on output progress due to risky and unjustifiable investments. Further, increasing default loans and non-performing loans are a concern for all the SAARC countries. Nevertheless, the findings are in line with Yang (2019) who argued that an increase in credits causes excessive money supply in the country, which in turn leads to an increase in inflation and causes a negative influence of financial development on economic progress. The lower quality of credit assigned to domestic households rather than industrial firms also leads to a negative impact of domestic credit on economic growth (Sanaphanh & Sethapramote, 2021). Further, these findings are in line with Tariq et al. (2020) who reported that the impact of financial development is negative until it reached an optimum level of advancement. Since the SAARC nations are generally found to be suffered from inefficiency due to bureaucratic hurdles, red-tapism, thus these countries should further liberalize their monetary and fiscal policies. Balach and Law (2015) argued that the possible reason for the adverse influence of financial advancement on economic progress is that the

financial institutions are not adequately developed in the SAARC region. Ahmed and Ansari (1998) also argued that the SAARC countries could benefit from financial development by adopting liberalization policies and monetary and fiscal reforms. Akinlo (2004) suggested that efforts should be made to keep legitimate private capital at the state by encouraging domestic investment and by providing a level field to domestic as well as foreign investors by adopting the legal and administrative framework.

As shown in Table 3, the influence of broad money is positive in long-run (0.113), implying that the SAARC countries are positively benefitted by broad money. This also suggests that the monetary policies adopted by the SAARC nations to cope with inflation, interest rates, and money supply is adequate and provide positive results in the long-run. Consequently, the influence of broad money is negative in the short-run, which might be due to inflationary pressure and the short-term decision taken by the central bank to grasp inflationary trends properly. Odhiambo (2009) also found a positive impact of broad money on economic growth in Kenya, whereas Estrada et al. (2010) found an optimistic bearing of broad money on output growth in the Asian region. They further reported an optimistic finance-growth nexus irrespective of the proxies used to represent the financial advancement in the Asian nations.

Likewise, the impact of gross savings is negative and significant in the long-run (-0.135) while the influence of gross savings is positive in the short-run (0.282). The possible reason for this disparity in the long-run and short-run is that, in the short-run, the impact of gross savings is positive because, theoretically, domestic savings may constitute an essential source of more investment but in the long-run, these countries use external flows to finance their savings.

The impact of FDI is adverse and significant in the long-run (-0.374) at a 10% level of significance while in the short-run the impact of FDI is negative (-0.331) and insignificant. These findings suggest that the SAARC countries are not reaping the benefits of external inflows properly. Further, most of FDI coming into SAARC countries is invested in infrastructure development, thus the actual benefits of FDI in the SAARC nations will be visible in coming years. Moreover, generally, the foreign companies do not transfer the technological know-how to these countries, due to which, these countries are not optimally benefitted by the external investment. The negative influence of external

investment on economic progress in the SAARC region is in tally with Inekwe (2013) for Nigeria. He contended that FDI in the industrial sector has an adverse influence while external inflows in the service sectors have an optimistic influence. Similarly, Zardoub (2021) also found an adverse bearing of foreign influx on output growth. He argued that the adverse influence of external flows is due to poor governance and poor governmental strategies in developing states, thus emphasizing governance structure to improve FDI-growth nexus in these nations. However, the study's results differ from Srinivasan et al. (2011) who found an optimistic connection between FDI and output growth in the SAARC nations in the long-run and the short-run. They contended that to attract more external funds, the SAARC states should concentrate their efforts towards the enhancement of the economic progress of these states rather than only focusing on liberalized foreign flow policies. Likewise, the research also differs from Sethi et al. (2020) who found an optimistic influence of FDI and monetary development on economic growth. Furthermore, Chakraborty and Nunnenkamp (2008) argued that the extent of benefits of FDI not only depends on the amount of FDI but also on the type and structural composition of FDI. Notwithstanding, human and physical capital in terms of external inflows as well as national investment is indispensable to accomplish the economic progress of a country at any phase of the development (Asghar & Hussain, 2014). Study's results are also in line with Ang (2009). He contended that external inflows have no influence on economic progress but the impact of foreign inflows when considered with financial development are growth-enhancing. Thus, he stated that a highly developed financial structure enables the transfer of new techniques and innovation through external inflows and ultimately leads to economic growth. Study's results are also similar to Akinlo (2004), in the case of Nigeria, who reported that external inflows have an optimistic influence over economic progress after a considerable lag. He further contended that to reap the benefits linked with external inflows, investment should be made in areas of the manufacturing field and other sectors where the influence of external influxes is adverse should be more liberalized.

Further, the coefficient value of ECT is -0.7110, which is negative and substantial, suggesting that the system goes back to symmetry at the speed of 71 percent.

Table 3: Panel ARDL long-run PMG estimation

Long-run estimation results		
	Coefficients	*p*-value
DCP	-0.4862	0.192
BM	0.1136	0.003
GS	-0.1353	0.000
FDI	-0.3749	0.063
Short-run estimation results		
ECT	-0.7110	0.000
ΔDCP	0.1321	0.326
ΔBM	-0.2702	0.017
ΔGS	0.2825	0.000
ΔFDI	-0.3314	0.547
Constant	3.0548	0.006

Source: Author's elaboration

The researchers have also provided the short-run estimations for all nations involved in the study separately as shown in Table 4. The country-level PMG estimates submit that the influence of financial development and FDI on output growth differ across nations.

In Sri Lanka, the impact of the ratio of domestic credit (0.703) and broad money (0.595) has an optimistic and substantial impact on output growth in the short-run. This suggests that the credit provided by banks works as an investment to the private sector, thus optimistic influence on productivity growth in the short-run. As per Financial System and Stability Review (2019), banks in Sri Lanka are shifting their excess funds in T-bills and T-bonds and are increasingly cautious in lending credit for business activities. Likewise, the steps taken by the Central bank of Sri Lanka to contain optimum inflationary levels and liquidity in the system are also constructively contributing to productivity growth in the short-run. The influence of domestic savings (0.259) is also contributing positively and significantly to productivity growth, which further suggests that the domestic savings are being used as an investment in the short-run. Although the influence of FDI (0.460) on productivity growth is positive but trivial, it is reported that the higher level of foreign inflows would foster the growth of Sri Lanka and would contribute toward fulfilling the obligations more sustainably.

In the case of Nepal, the impact of broad money (0.175), gross savings (0.310), and FDI (2.609) is positive and substantial in the short-run. This illustrates that the steps taken by the Central bank and the liberal policies adopted by the government to attract foreign inflows are optimistically contributing to output growth in the short-run. The financial reforms introduced in 1980 by the Nepal government have contributed substantially in enhancing the number of banks, size of broad money, access to financial resources, and capital formation (Paudel and Acharya, 2020). This study reported an optimistic effect of FDI (2.609) on productivity growth in Nepal, which is in contrast with Paudel and Acharya (2020). They found a negative connection between foreign influx and output progress.

Table 4: Short-run estimates for every country separately

	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
ECT	-1.256	0.179	0.691	0.907	0.732	0.918	0.299
	(0.000)	(-0.239)	(-0.02)	(0.000)	(0.000)	(-0.059)	(-0.039)
ΔDCP	0.061	1.369	0.295	0.126	0.043	0.509	0.703
	(-0.143)	(-0.405)	(-0.37)	(-0.659)	(-0.60)	(-0.301)	(-0.001)
ΔBM	0.455	0.076	0.022	0.672	0.175	0.058	0.595
	(0.000)	(-0.504)	(-0.92)	(-0.160)	(-0.03)	(-0.790)	(0.000)
ΔGS	0.240	0.061	0.264	0.354	0.486	0.310	0.259
	(0.000)	(-0.290)	(-0.74)	(-0.329)	(0.000)	(-0.403)	(-0.009)
ΔFDI	0.239	1.846	1.291	0.799	2.609	0.844	0.460
	(-0.215)	(0.0000)	(-0.27)	(-0.009)	(-0.04)	(-0.467)	(-0.690)

Source: Author's elaboration

In Bangladesh, the bearing of broad money (0.455) and gross savings (0.24) is positive and substantial on productivity growth in the short-run. This infers that the liquidity introduced in the financial system by the Central bank, reforms introduced in the 1990s, deposit interest rate, etc. are positively contributing to the growth of the economy. This also submits that the central bank of Bangladesh should work independently of political affairs and pay attention in managing and controlling liquidity in the system. However, the impact of domestic credit (0.061) and the external inflows (0.239) is positive but insignificant in Bangladesh, suggesting a trivial impact of these variables on economic progress in the short-run.

In Bhutan, the influence of domestic credit (1.369), broad money (0.076), and gross savings (0.062) are insignificant although FDI (1.846) is playing a significantly optimistic role in enhancing productivity growth in the

short-run. Yet, the share of FDI in Bhutan's GDP is low compared to the other South Asian countries. The government of Bhutan is taking various steps introducing reforms to attract more FDI into the country. It has relaxed FDI regulations in recent years and also introduced a 'negative list for FDI' to optimistically increase the inflow of FDI.

Similarly, in the Maldives, the impact of domestic credit (0.126), broad money (0.673), and gross savings (0.354) are positive but insignificant, suggesting that these variables do not influence output progress in the short-run while FDI (0.799) is playing a significantly positive role in enhancing productivity growth in the short-run. In the Maldives too, the government is providing a conducive business environment for foreign investors with a liberal trade environment and a modern tax system to provide legal protection for foreign investors.

Likewise, in India and Pakistan, the impact of all the studied variables, i.e., domestic credit, broad money, and gross savings on productivity growth is trivial in the short-run, as depicted in Table 5. This suggests that the output progress in the short-run is not affected by these variables in the short-run. Accordingly, Tahir et al. (2015) reported a substantial connection between bank credit and economic progress in the short-run in Pakistan. Following Tahir et al. (2015), it can be concluded that the credit in Pakistan should be provided for productive purposes, considering the worth of the project and independent of political influence. Similarly, in the case of India, Choi, and Baek (2017) also reported that FDI is having a spillover effect on output growth. Chakraborty and Nunnenkamp (2008) argued that in India, the advantageous influence of external investment is felt in the industrial sector while the service sector is least benefitted by the foreign flows. Further, the quality of external investment proposals also matters while considering the nexus between foreign flows and economic progress.

CONCLUSION, RECOMMENDATIONS, AND FUTURE RESEARCH DIRECTIONS

The nexus amid economic development and output growth is widely studied but the conclusions are mixed. The impact of foreign influx on output growth is also considered to be conditional on the financial development of the country. In this study, the researchers explored the influence of financial development and foreign influx on output growth in the subsequent SAARC

states: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka for the period 2006-2019. The empirical results discovered different regularities. Pedroni panel cointegration test shows that financial development, foreign inflows, and economic progress are cointegrated in the long-run. PMG estimates suggest that broad money positively affects economic growth, while gross savings and domestic credit are negatively affecting the economic growth of SAARC countries. The impact of foreign inflows on economic growth is also negative.

Many policy implications can be made from these empirical results. The financial sectors of these countries are not evenly developed; therefore, the economic policies of these countries should be defined by considering the financial sectors of these countries. Further, these countries are attracting a larger but different amount of FDI where the influence of foreign influx on output growth is negative in the long-run. This indicates that these countries are not efficiently reaping the benefits associated with the foreign inflows. Moreover, foreign firms do not hand over the production know-how to these nations generally. However, the sound financial system works as a foundation to reap the advantages associated with the FDI in the host country and to attract more FDI. Therefore, the policymakers of these countries should develop and improve the domestic financial system to efficiently reap the advantage embodies in foreign inflows in enhancing the economic growth of these nations. Further, the focus of policymakers should be to provide a good business climate, refine the financial infrastructure, and enlarge the financial inclusion to realize sophisticated economic growth while designing financial policies. Besides, the foreign inflows should be attracted in the productive areas and a favorable and smoothing environment for national as well as foreign investors should be provided. Further, structural reforms to reduce economic bottlenecks and enhanced financial system stability in each country will be required to reach the growth potentials.

Limitations and Future Research Directions

Despite the contribution of the current paper in the prevailing literature, there are a few limitations also. Foremost, this study has considered only the banking sector variables to proxy for financial development. Further research can consider stock market indicators along with banking sector indicators to get more understanding of the influence of financial development on economic progress. Secondly, the present study explores the linear association between

financial development, external investments, and economic progress. Further research can consider non-linear associations amongst the variables. Lastly, the current study only considers the impression of monetary development and external inflows on output growth but the output growth of a country can be affected by many variables, therefore, further studies can be done to study the impact of other variables such as human capital, inflation, technological innovations, etc.

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CONFLICTS OF INTERESTS

The authors declare no conflicts of interest

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